Transportation Observations, Considerations, and Recommendations for Yaquina Head Outstanding Natural Area

Provided by the Interagency Transportation Assistance Group (TAG) / Alternative Transportation in Parks and Public Lands (ATPPL) Program

Newport, Oregon
October 16–17, 2007

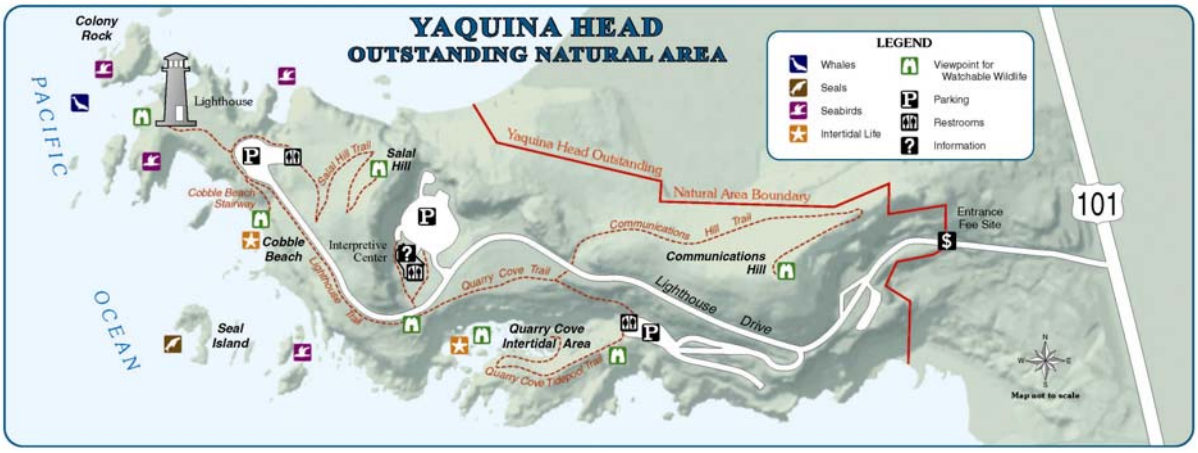
A field investigation of the current transportation infrastructure and issues at Yaquina Head Outstanding Natural Area by the interagency Transportation Assistance Group (TAG) was conducted October 16-17, 2007, on behalf of the Bureau of Land Management (BLM). This TAG report was prepared subsequent to the site visit and documents the conditions observed, transportation issues and considerations, and recommendations arising from the TAG team's analysis. The site visit and the preparation of this report were facilitated and funded by the Alternative Transportation in Parks and Public Lands (ATPPL) program, administered by the Federal Transit Administration (FTA) in coordination with the Department of the Interior (DOI).

Background and Conditions

Yaquina Head Outstanding Natural Area (YHONA) is the site of Oregon's tallest and second oldest continually active lighthouse, and a protected place for intertidal plants and animals. YHONA is a coastal headland formed by a lava flow that originated 14 million years ago. The Yaquina Head Light Station was established in 1872 and lighthouse-keepers lived on the site until 1966. This site has significant levels of peak visitation during the summer months (mid-June through mid-September) and on weekends. A single route connects the entrance gate to two of the most heavily visited facilities: the lighthouse and the interpretive center. Parking is congested near some of these attraction areas during peak conditions.

YHONA is located along the central portion of the Oregon coast, in Lincoln County. Newport, with a population of over 10,000, is the largest city in Lincoln County and lies approximately three miles to the south of YHONA. The site is accessible from U.S. Highway 101 (US 101), a major north-south highway extending along the Pacific Coast. The main entrance station to YHONA is located approximately 1,500 feet from US 101. The junction of US 101 and Highway 20 in the City of Newport (five miles south) and the junction of US 101 and Oregon State Highway 18 (near Lincoln City, 27 miles to the north) provide points of access to the site.

The BLM is charged with overall administration responsibility for YHONA. The U.S. Coast Guard is responsible for the maintenance and upkeep of the light apparatus inside the lighthouse. The U.S. Fish and Wildlife Service is responsible for administering the Oregon Islands National Wildlife Refuge, which includes several rocks and islands lying immediately offshore.



Major areas of the 100-acre site—the interpretive center, historic lighthouse, and various tidal pools—are connected by a series of trails. The interpretive center and parking lot, maintenance building, and entrance booth were constructed during the 1990s. Many areas at the site, including the trail between the lighthouse and the interpretive center, are wheelchair accessible. There are approximately 200 on-site parking spaces: 137 car spaces at the interpretive center (plus 2 bus spaces, 8 handicapped spaces, and 2 spaces for YHONA's maintenance vehicles, which are fully utilized), 43 spaces near the lighthouse (including only one large-vehicle parking area), and 40 spaces near the Quarry Cove area.

Lighthouse parking area.

In 2007, there were approximately 330,000 visitors to the site; 1990s demographic data indicate about 3% local visitation, 63% from the rest of Oregon, and 34% from outside Oregon. This area of the Oregon coast is a major summer vacation destination. Nearly all visitors (except for school and tour groups) travel via private automobiles or RVs along US 101, which becomes heavily congested during the summer. According to a 2003 visitor survey, 97% of visitation to YHONA was part of a longer itinerary; only 3% of visitors reported that YHONA was the primary purpose of their trip.

In 2003, about 30% of visitors stopped at the interpretive center; the remainder drove straight to the lighthouse. Since that time, orange cones have been placed in the road, directing visitors into the interpretive center parking area. This has increased visitation to the interpretive center (in 2006, approximately half of visitors stopped there—although the lighthouse was closed during 2006), but some visitors drive around the cones, and then head toward the lighthouse. According to the 2003 survey, 70% of visitors listed the lighthouse as their primary reason for coming to YHONA.

Leading into the site from the entrance station, orange cones direct visitors to enter the interpretive center parking area.

There is a $5 per-vehicle access fee, good for 3 days. This is scheduled to increase to $7 for the 2008 summer season. Approximately 25% of visitors turn around when they encounter the fee booth and realize that access to the site is not free. Unit staff note that from the location of the fee booth, neither the lighthouse nor the oceanfront are visible, possibly creating visitor confusion, and/or visitor reluctance to pay the fee. However, the 2003 visitor survey reported that only 17% of visitors thought the entrance fee was too high.

A scheduled bus route is operated by Lincoln County Transit along US 101, between Newport and Lincoln City. Buses operate Monday through Friday. The nearest stop to YHONA is at the Wal-Mart store, approximately one mile to the south along US 101. The YHONA entrance is located too far from US 101 to make a stop on US 101 a feasible means of accessing the site.

New signs are slated for both the interpretive center and the fee booth.

The management plan for YHONA dates from 1983. It was refined in 1986.

Transportation Issues/Problems

The primary transportation problems occur during the busy summer season (Memorial Day through Labor Day, but the "peak of the peak," with 7-day-a-week problems, is between July 4 and Labor Day), during which time the number of vehicles entering the site overwhelms the limited lighthouse parking area. It is not uncommon during a busy summer day for visitors to have to circle the parking lot for 10 to 15 minutes searching for a parking space. In frustration, vehicles often park in unauthorized locations, creating hazards and safety problems for themselves and other visitors. This situation contributes to an increase in the number of visitors having a negative experience at the park due to issues surrounding parking. Also, this negatively impacts the visitor experience. In general, the people who walk from the interpretive center to the lighthouse as opposed to driving have a much higher quality visitor experience. Seasonal special events (birdwatching weekends June-Aug.; whale-watch weeks in March and December) also cause congestion. Managing this situation requires staff time to direct traffic and otherwise ensure the safety and orderly circulation of visitors.

Several years ago, YHONA attempted a visitor-management system: issuing timed tickets at the interpretive center for lighthouse tours (although this was aimed mostly at reducing lines at the lighthouse, which can only accommodate a limited number of people at one time, and not at reducing parking congestion). For instance, a visitor might show up at 12:30, and would get a ticket for a 2:30 tour. Many visitors were unwilling to wait, under the circumstances, and actually left the site. Unit staff report that visitors seem willing to wait in line at the lighthouse, but there is little support for a timed-ticket system.

The lighthouse is accessible via a short, paved pedestrian trail from the interpretive center. However, most visitors do not walk. The general direction provided to visitors is along the lines of "the lighthouse is a 1-minute drive or a 10-minute walk." Reaching the trail from the interpretive center may be confusing; it is behind the building itself, and the landscaping and signage are not clear or attractive (until the trail passes under the road to the lighthouse). Also, grades on the trail make it difficult for wheelchairs to negotiate. Under all circumstances, adverse weather conditions keep many visitors off the trail.

Because the interpretive center is not called a "visitor center," there may be some confusion on the part of visitors as to what the facility actually is and why they might want to stop there. If it is made clearer to visitors, they may be willing to spend more time at the interpretive center, potentially reducing long lines at the lighthouse. The orange cones in the road have been an attempt to make this happen, but the cones are often circumvented by visitors.

In general, there is a lack of hard data regarding visitor circulation and congestion.

Anecdotally, the Quarry Cove parking area is relatively underused.

As noted above, there is significant (perhaps as high as 25%) turnaround at the entrance-fee booth—visitors cannot see the lighthouse or the oceanfront from there, and many leave when asked to pay a fee. There has been discussion of possibly moving the fee

booth to alleviate this problem, but in its current location, the fee booth controls access not just to the interpretive center and the lighthouse but the Quarry Cove parking area. Moving it closer to the oceanfront would result in a loss of access control to Quarry Cove.

There is transit potential; a free "south Newport" shuttle service exists in the town of Newport to alleviate traffic congestion there during the crowded summer peak, so visitors to the area do have some exposure to and familiarity with transit. There has been discussion of a "northern" shuttle being a logical second phase of this operation. However, in addition to the host of operational issues that would need to be resolved in connection with some expansion, there is the question as to how the entrance fee would be collected from Yaquina Head visitors arriving via transit. (There is a sense that this is not an insuperable problem.)

Analysis and Recommendations

The TAG team recommends that Yaquina Head consider the series of actions below. In general, it is strongly suggested that for those recommendations involving expenses, actions involving only "one-time" costs should be considered before those actions that would necessitate recurring expenditures.

Incremental/short-term actions

Some of these recommendations could be implemented during the 2008 peak season. They do not necessarily require a great deal of money or staff time.

- *Fee booth.* New signage—or perhaps a photo of the lighthouse and oceanfront—installed at the current fee booth may reduce the visitor-turnaround rate. This will help to maximize entrance fee revenue.

  Alternatively, to test the idea of relocating the fee booth, an experiment could be conducted to collect fees at the interpretive center. Although this would result in the loss of controlled access to Quarry Cove, a no-turn sign could be installed to encourage visitors to first pay the fee at the interpretive center prior to visiting Quarry Cove. By changing fee collection, revenue could increase, since the turnaround factor would presumably decrease—but revenues could drop, if visitors do not pay the fee at the interpretive center and simply drive to the lighthouse or Quarry Cove parking areas. (The orange-cone system now in place might need to be changed or improved to more strongly encourage visitors to pay the fee at the interpretive center before proceeding.) It is recommended that the unit research fee alternatives/arrangements by seeking information on what systems are in place at other recreation sites, and determining how to test what kind of method might work best at YHONA. (Also, see below for other notes on Quarry Cove parking.)

- *Encouraging use of the lighthouse pedestrian trail.* If more visitors can be encouraged to park at the interpretive center and walk the trail to the lighthouse,

parking congestion could be significantly reduced at the lighthouse parking area. (The interpretive center parking lot is rarely at capacity.)

Staff should be encouraged to direct visitors to take the trail as the default option for reaching the lighthouse, with driving as a fallback or secondary option. Internal circulation within the interpretive center, and signage and landscaping outside of it, could be improved to encourage use of the trail—currently, visitors entering the front door must weave their way through and then out the back door in order to access the trail, and once outside behind the building, it is not entirely clear from the signage and landscaping where the trail is. Improvements could draw attention to the trail's existence.

Once on the trail, visitors may need encouragement to continue past the underpass; that portion may discourage visitors, who cannot see the oceanfront or lighthouse until they emerge from underneath, on the other side of the main road.

These improvements may be accomplished by installing visual draws (signage, landscaping, photography, sculpture, other art); by reducing visual clutter; by moving items within the interpretive center (such as the main desk and exhibits); and/or by additional staff interaction with visitors. Other suggestions included creating a sticker or button ("I walked the lighthouse trail"), providing guided tours to raise awareness of the trail, or granting a discount at the gift shop for pedestrians.

As noted earlier, adverse weather keeps visitors off the trail; this is a limiting factor in terms of encouraging trail use. If visitation to the unit as a whole is lower during adverse weather, reduced trail use may correspond with reduced traffic and parking congestion, so this may not present a problem. However, weather conditions may change quickly. Although bad weather can be an important part of the visitor experience, it can also present a hazard, and some kind of vehicular service may be needed—possibly with little notice—during inclement weather conditions.

- *Parking / lighthouse access control.* Perhaps on a pilot basis, car access to the lighthouse could be controlled, and data gathered on whether such controls were effective and acceptable to visitors. (In the visitor survey, only 14% of visitors said that they preferred access to the lighthouse to always be unlimited; the rest said at least some restrictions would be acceptable.) Instead of or in addition to the orange cones, a temporary gate, sign, or movable barrier could be installed, explaining (for instance) that car access to the lighthouse is on a by-request basis only, in order to ensure that disabled visitors, or those with limited mobility, were able to park; other visitors are encouraged to walk. No certification would be required by visitors that they have mobility impairments; the idea is that by making car access to the lighthouse on a by-request basis, only those visitors who truly require such access would request it; unit staff would not challenge or question the need for such access.

- However, as an experiment, different arrangements could be considered. Another possibility is to collect an additional fee from those visitors wishing to drive to the lighthouse, although this would require additional staff resources, either to collect a second fee or to ensure that cars parked at the lighthouse paid a higher fee.

  If a parking fee (or an additional fee) is implemented for lighthouse parking, the Quarry Cove parking lots could be kept free, to provide incentive to some people to park there, alleviating some congestion at the lighthouse. The fee arrangement could be explained at the entry booth (wherever it is located); visitors could be offered an option to pay a fee and park, or pay less and then walk the trail. Visitors who pay the appropriate fee could be provided with colored cards for their cars' rear-view mirrors or dashboards, facilitating the issuance of parking tickets to violators (the fee for which could also be increased). This kind of arrangement may mean that the free parking lots will end up being used by return visitors from the community, mitigating the effects of any fee increases. However, promoting free parking at Quarry Cove may make the most sense when the other parking lots are already full.

- *Data collection.* The Oregon Department of Transportation may be able to loan the unit vehicle or person counters, so that hard data can be generated regarding visitor circulation, congestion, and use of the various parking areas. Otherwise, BLM transportation-planning funds ("9420 funds"), or other external funds, could be used to pay for data collection and analysis.

Alternative Transportation in Parks and Public Lands Program (ATPPL)

- *Planning study.* An ATPPL application could be submitted to conduct a comprehensive transportation planning effort, aimed at quantifying the problems currently being experienced, predicting future conditions, and identifying potential solutions.

  The "Federal Lands Alternative Transportation Systems Study Document: Yaquina Head Outstanding Natural Area Field Report" (or so-called "Section 3039" report, from 2001) identified several feasible transit access alternatives:

  - A point-to-point shuttle between the interpretive center, lighthouse, and Quarry Cove.

  - An in-town circulator from area attractions (such as the Marine Science Center and the Oregon Coast Aquarium) to the interpretive center, possibly including a demand-response mode with on-request service to motels.

  - A shuttle between the interpretive center and an off-site "park-and-ride" satellite parking area. (This was identified as a longer-term alternative, for when interpretive center parking begins to reach capacity.)

However, the planning study being recommended here would not presuppose that one or other of the above alternatives would be appropriate. The study should focus on documenting and describing the current and predicted transportation problems and needs, and only then determining what kind of solutions might be appropriate. The study could include the following elements:

- Enumeration of transportation goals—e.g., reduce parking congestion at lighthouse, maximize visitation to the interpretive center, improve the quality of the visitor experience, manage visitors/distribute activities between sites, reduce traffic congestion, ensure full accessibility to all visitors, provide bad-weather transportation, reduce automobile noise/emissions. These goals will be used to evaluate the different potential alternatives that would be generated.

- Collection of visitor and transportation data: congestion and circulation patterns. Possible visitor survey to focus on transportation, perhaps done in connection with partners such as Friends of Yaquina Lighthouses.

- Quantitative description of current and predicted transportation problems, based on analysis of transportation data.

- Listing of transportation elements and management/implementation possibilities, including: fees (booth location, fee structure, collection method); pedestrian/trails access; lighthouse parking area; Quarry Cove parking area; interpretive center parking area; access controls; traveler information; transit services.

- Description and feasibility of preliminary transportation alternatives, evaluated according to determined transportation-management goals, BLM/unit goals in line with YHONA master plan, financial sustainability, visitor acceptance.

It may be that, as a result of the planning study, one or more alternatives might require a second, more detailed planning effort prior to implementation, possibly in line with the requirements of the National Environmental Policy Act.

- *Demonstration service.* The ATPPL can fund the capital cost of a demonstration service; YHONA might consider proposing one (perhaps one of the three alternatives identified by the "Section 3039" report, listed above). The Friends of Yaquina Lighthouses would support the implementation of such a service, but would not be able to contribute significant operating costs. A vehicle could possibly be provided by Lincoln County Transit, but they too may not be able to contribute operating costs. One option is to use some of the revenues collected from the entrance fee (see below regarding longer-term fee options).

  If a demonstration service is done in connection with a planning study, the study could analyze the results of the service and provide feedback and direction toward implementing a permanent transit service. However, it might be better to do the

planning study first, to determine the financial feasibility/sustainability of even a limited-time demonstration service, and to decide how any kind of transit service would best work in line with other transportation alternatives. (For instance, would transit be an *option* to reach the lighthouse parking area, or a *required* means of access? A demonstration service could test different configurations, but a plan developed ahead of time could be the best way to make the most effective use of a demonstration.)

(See below for additional notes on a demonstration service.)

Activities funded from other sources

- *Temporary demonstration service.* A short-term shuttle demonstration, for part or all of the 2008 season, could potentially be arranged at minimal cost, if a vehicle lease or cooperative agreement can be reached with Lincoln County Transit (in line with FTA restrictions on the charter use of transit assets) or with a private operator, and if operating funds can be provided by some combination of YHONA entrance fee revenues and funds from the Friends of Yaquina Lighthouses (possibly increased if visitor sales and donations grow as a result of a transit system helping to raise visitation at the interpretive center and gift shop).

- *Newport shuttle.* The unit should work with Lincoln Country Transit to explore the "phase two" extension of the Newport summer shuttle service to Yaquina Head. This service involves FTA's "Section 5311" funds (the Rural Formula Program).

Longer-term actions

- *Fee adjustment.* Although a fee rise is already in the works, the unit should consider raising the site entrance fee by an additional $1 to create a pool of transportation funding that can be used to pay for transit operations. A $1 rise in the fee, over a three-year period, would generate an estimated $300,000; this could support transit operations, maintenance, and staffing, as well as—although these activities are eligible for other funding—landscaping and signage, planning and analysis, and the installation of shelters, traveler information systems, and any other infrastructure.

  There seems to be visitor willingness to pay more, as reported in the 2003 visitor survey; 35% of people reported that they would accept a higher fee. Only 9% of people disagreed with the statement "The value of the recreation opportunity and services I experienced was at least equal to the fee I was asked to pay."

- *Road study.* Longer-term improvements to the road system could facilitate the use of transit systems, if transit is eventually implemented at the site. The entrance road could be realigned, creating a new entry to the interpretive center parking area, in order to increase the visibility of, and visitation to, that facility. The

current entrance/exit could be used as the exit only, or a new arrangement could be created whereby a new entrance/exit would be created off the new road for cars, and the existing entrance/exit would be used strictly by mobility-impaired visitors driving to the lighthouse, or transit vehicles, if access to the lighthouse is limited. The road between the interpretive center and the lighthouse, if access is controlled, could be re-examined for multi-modal use, including by bicycles and pedestrians. BLM transportation planning funds might be the most promising eligible source to pay for this kind of study.

- *Trails study.* An effort could be initiated to address and improve pedestrian access to the lighthouse, if the interim/short-term measures suggested above are insufficient. The trail itself might need to be widened, moved, regraded, or comprehensively relandscaped, or the trail might need to be re-evaluated in connection with a re-evaluation of the lighthouse road itself (the road could be narrowed or reconfigured, for instance). Or, in general, the trail system could be expanded, creating new pedestrian options (such as a loop trail to Salal Hill). Such a study could be paid for by BLM transportation planning funds, or perhaps by the Recreational Trails Program.

TAG Participants

Transportation Assistance Group (TAG)
- Lou DeLorme, Alternative Transportation in Parks and Public Lands Program Coordinator, U.S. Department of the Interior
- Jack Placchi, Bureau of Land Management
- John McCarty, Bureau of Land Management
- Bill Ramos, Federal Transit Administration, Region X
- Jennifer Stewart, Federal Transit Administration, Region VIII
- Eric Plosky, Community Planner, U.S. Department of Transportation, Volpe National Transportation Systems Center

Bureau of Land Management
- Joe Ashor, Yaquina Head ONA Manager
- Jay Moeller, Chief Ranger, Yaquina Head ONA

Other Participants
- Jane Maines, Friends of Yaquina Lighthouses
- Cinda Bruce, Lincoln County Transit Authority

Supporting Documents

1. Federal Lands Alternative Transportation Systems Study Document: Yaquina Head Outstanding Natural Area Field Report ("Section 3039" report). 2001.
2. TAG questionnaire, October 2007.

3. *BLM Visitor Survey: Yaquina Head Outstanding Natural Area Site Report.* Pacific Consulting Group, November 2003.
4. Visitor/financial data provided by Friends of Yaquina Lighthouses.

*****

ACKNOWLEDGMENTS

Success of this TAG field investigation/analysis, and, subsequently, the value of this report addressing transportation planning considerations and opportunities for Yaquina Head ONA, reflects the successful preparations, logistics, facilitation skills and expertise contributed by those staff representatives listed above. The members of the TAG team collectively thank these individuals for their dedicated efforts, and for the contributions they made that greatly facilitated our work.

*****

NOTICE

*****