

# APPENDIX D

## Central Oregon Rail Planning

### Original Planning Work Assignment and Background

#### PROBLEM STATEMENT

There are two general railroad related challenges in Central Oregon. The first general set of problems are those associated with *public at-grade roadway crossings of the railroad*. The BNSF railroad runs through the middle of Madras, Redmond, and Bend which creates a linear barrier to safe and efficient east-west traffic movement, as well as operational inefficiencies for BNSF. Other rapidly growing Central Oregon communities and rural sections face a similar challenge with these crossings, notably in the Culver area.

The second set of problems relates to *preserving and enhancing railroad freight mobility*. The national RR trend towards longer hauls with fewer stops will increasingly present a problem to local industries' access to the RR. BNSF has told potential new rail freight customers that they should not expect service at new Redmond locations. They have made the same statement to the Redmond Economic Development office. Meanwhile, an increasing number of companies located in Portland and the Willamette Valley are servicing customers in Central Oregon by daily motor freight deliveries. More and more are now establishing warehouse facilities here that would enable them to ship in bulk by rail if they could receive reliable service. This would reduce the number of trucks using the state highway system for longer distance trips. Related to both of the above is the question of whether it would be preferable to relocate the BNSF line to the east of Bend and Redmond. The costs and benefits of providing numerous grade-separated crossings within these urban areas need to be compared and contrasted with the costs and benefits of relocating the BNSF. Also, tracks in Central Oregon are currently not used for passenger rail; however, should AMTRAK or some form of commuter rail come to the High Desert then two things need to be studied: the feasibility of passenger rail and if feasible, the effect on freight mobility.

Some specific issues associated with these two problems are:

#### *Public Railroad Crossing Issues:*

- There have been numerous restrictions on the construction of new & widened RR crossings, as well as on the development of adjacent land uses.
- Traffic volumes on City streets have increased dramatically so when a train is using an at-grade crossing the disruption to local traffic circulation is severe, leading to a ripple effect on congestion.
- Serious challenges in providing adequate access to regional facilities such as the Deschutes County Fairgrounds, the Redmond Airport, and potential regional facilities such as the City of Bend's Juniper Ridge development.
- Rapidly rising right of way costs and development adjacent to the RR have significantly increased the cost of providing grade-separated crossings.

- Uncertainties in long-range transportation planning efforts (such as the extension of the Redmond Reroute, Redmond TSP update, etc.) due to lack of a regional RR plan.
- Safety concerns related to the numerous at-grade crossings.
- Potential for hazardous materials incident in a highly urbanized and/or environmentally sensitive area.

*Freight Mobility Issues:*

- The lack of a regional freight ‘hub’ is resulting in over-reliance on highway truck freight and reduced RR level of service for local industry.
- Reduced access to rail freight will make Central Oregon less attractive for certain types of new and existing businesses.
- As freight volumes increase there is a need to gauge whether the existing railroad property in the urban areas would be of sufficient width to add a second set of tracks.
- Class I rail carriers prefer to minimize the time spent building or dispersing strings of freight cars. The shortline City of Prineville Railway may be able to assist in either assembling or dispersing large blocks of rail cars to/from small shippers; these switching operations would occur at one or two primary locations.

**PROJECT GOALS & OBJECTIVES**

The purpose of this project is to develop a regional plan which improves rail freight mobility and addresses the various problems associated with at-grade railroad crossings. Finding a solution to the regional issues associated with rail and highway conflicts will require a comprehensive analysis of alternatives both in the cities and in the surrounding area. The ideal long term goal is to eventually eliminate all at-grade RR crossings, but given economic and other constraints, the plan will of necessity include a phased approach for incrementally making improvements to the current series of at-grade crossings and other railroad related issues. Consequently, the plan will include a prioritized list of recommended closures, widenings, new crossings, and locations for grade-separation. In addition, the plan will include some preliminary feasibility and cost-benefit analysis associated with the potential relocation of the BNSF to a new corridor east of the Bend and Redmond urban areas. Finally, the plan will analyze and provide recommendations for enhancing freight mobility, including the possibility of establishing a regional railroad hub.

A proposed Plan Area is attached and annotated in Figure 1. Specifically, the objectives of the Plan are to:

**Address Railroad Crossing Issues:**

- Recommend a decision-making system across COACT membership and the railroads (and other stakeholders) with the goal of developing a regional strategy for the entire system of rail crossings, instead of each crossing or community in isolation. This may serve as a tool for a multi-party agreement.
- Based on the regional crossing strategy, prepare for adoption a set of coordinated and prioritized actions and physical rail crossing improvements focused on safety and operation, in and around Central Oregon.
- Prepare cost estimates for all recommended crossing and grade separation improvements.

### **Freight Mobility Issues:**

- Consider and evaluate the feasibility of other long range rail planning work, such as analysis of rail yard and terminal capacity, and opportunities for system expansion, multi-modal integration, passenger rail, etc.
- Analyze the costs and benefits, including the long term user costs and benefits of establishing a regional RR freight hub, likely in the area of O'Neil Junction.
- Obtain broad public support for a new Rail Plan and present the Plan for adoption by elected officials & endorsement by COACT. This will include recommendations for new rail chapters in local TSPs along with recommended funding strategies.
- Provide a preliminary feasibility analysis and cost estimate related to construction of a new RR alignment east of Bend and Redmond. The cost estimate will include an estimate for initial construction costs (including ROW) as well as a long-term, life-cycle cost-benefit comparison between construction of the new alignment and addressing the crossing issues on the existing alignment. Environmental impacts of a new alignment should be described, including the potential impacts to existing businesses which currently use the existing RR alignment. Potential benefits of converting the existing RR alignment to other multi-modal uses should also be described.

### **Common to both the Crossings & Freight Mobility Issues:**

- Obtain broad public support for the new Regional Rail Plan and present the Plan for adoption by elected officials & endorsement by COACT. This will include recommendations for new rail chapters in local TSPs along with recommended funding strategies.

## **SUMMARY BACKGROUND OF AREA, CITIES, & COUNTIES**

Central Oregon is a region that has rapid growth in the last fifteen years. In just the years between 2000 and 2006, the Central Oregon population grew by an incredible 64%. Most of this growth is due to in-migration. The estimated 2006 Tri-County Area Population is 185,231 with an estimated 2015 population climbing to 227,746.

The region is comprised of three counties (Jefferson, Deschutes, and Crook) and eight cities (Madras, Culver, Metolius, Sisters, Redmond, Bend, La Pine, the newest city in Oregon, and Prineville, the oldest city in the region). The railroad brought growth to all in the early 1900s and the BNSF mainline still passes through Jefferson and Deschutes counties and through or near most of their cities. Following is a brief description of the affected cities, given north to south and then east to Crook County. Afterward is a synopsis of current rail services in Central Oregon.

Each community served by rail in Central Oregon has their own unique perspective on both current operations and future potential. BNSF, UP, and the City of Prineville Railway provide direct rail connections for shipping to any market in the United States, Canada and Mexico. Amtrak provides passenger rail service to Central Oregon via the Chemult station, located approximately 60 miles south of Bend on US 97 in Klamath County.

### *Madras and Jefferson County*

Jefferson County has a population of 22,000, and Madras (population 6,070) serves as the County seat and principal employment center, with 33% of its workforce employed in jobs classified as “industrial” (compared to the statewide average of 7%). The Madras Industrial Park has nearly 1,800 employment positions, with the County Airport and industrial zone covering 2,200 acres. The balance of workforce reaches across the employment spectrum including professional, service, and government. In 2005 Madras grew by 8.5% and like every community in Central Oregon, expects growth to continue. The unincorporated area includes 58,000 acres of irrigated farm land and even a larger amount of range land. Including Culver and Metolius, agriculture remains an important component of the local culture and economy.

Madras has no at-grade railroad crossings as US 97 lies to the east of the BNSF tracks and US 26 passes above them near the airport (Madras constructed a rail spur from the BNSF line into its industrial park), with rail access or potential access near the main industrial area. The BNSF mainline lies just to the west of town.

There are County Road at-grade crossings within the southern portion of Jefferson County, and particularly those near Culver have experienced significant safety issues. ODOT, the County, and the railroads have cooperated to place controlled railroad crossings at four locations over the past five years (Belmont Lane, Feather Drive, Jericho Lane, and Iris Lane) and close two crossings (Franklin Lane and King Lane). The number one future railroad crossing need would be at SW Gem Lane near Highway 361.

### *Deschutes County*

Note each of the summaries provided for Redmond, Bend, and LaPine below. BNSF provides freight operations on a trunk line running through Deschutes County. This line connects with the UP main line at Biggs Junction in the north and with the UP mainline at Chemult to the south. The BNSF line usage varies between seasons and will likely increase in the near future, and there are various county road at-grade crossing within the county. Also there is an existing safety concern with the BNSF crossing at US 97 in Wickiup Junction. The line provides direct rail connections for shipping to markets in the U.S., Canada, and Mexico.

### *Redmond*

Home to the busiest commercial airport on the east side of the Cascades, the city is located 26 miles south of Madras. With approximately 24,000 people, the second-most populous city in Central Oregon is divided by three major north-south barriers. From west to east those are the Dry Canyon, U.S. 97, and the BNSF tracks. Exacerbating the difficulty of east-west travel is the City’s land use pattern with the plurality of residential land to the west of US 97 and the potential industrial lands to the east. Redmond also has only one grade-separated railroad crossing (Maple-Negus) and eight at-grade railroad crossings, including an at-grade crossing of OR 126 (Evergreen at this location). OR 126 (Highland Avenue at this location) and Maple/Negus streets are the only two grade-separated crossings of the Dry Canyon.

### *Bend*

The seat of Deschutes County lies 16 miles south of Redmond. The City of Bend has a population of nearly 76,000 spread across 32 square miles. Three major north-south features bisect the City. From west to east they are the Deschutes River, U.S. 97 and the BNSF rails.

Bend has five grade-separated crossing (Parkway, Empire, Greenwood, Franklin, and Third Street) and ten at-grade railroad crossings. The combination of at-grade railroad crossings and seven bridges across the Deschutes can combine to disrupt east-west traffic flows.

BNSF provides freight rail service to Bend. The rail line runs generally north/south through the center of town. The rail activity is primarily freight that is being hauled through the area. There is no existing or planned inter-modal truck-rail reload facility in Bend, but a few local industrial firms are served off short spur tracks. Most of the local rail users receive bulk shipments of materials used in manufacturing products that are shipped out by truck. One local user ships out pumice and other rock products mined near Bend. A railroad-switching yard is located east of the intersection of Colorado Avenue and Division Street. A rail car weigh station, serving the freight shipping needs of the Central Oregon area, is located west of Division Street along a spur track that runs south of, and parallel to, Colorado Avenue. The BNSF railroad lines are indicated on the Bend Urban Area Roadway System Plan.

There is currently no passenger rail service in Bend. The nearest connection to passenger rail service in Central Oregon is in the town of Chemult, which is located about 60 miles south of Bend. The AMTRAK “Coast Starlight” train currently has daily service, in Oregon, to Klamath Falls, Chemult, Eugene, Albany, Salem and Portland. The feasibility of extending AMTRAK service to the Bend area was analyzed during the development of the 1992 Oregon Rail Passenger Policy Plan. The study concluded it would be impractical to provide passenger service to Bend. In 2000, the state funded two “throughway” bus connections with AMTRAK that pass through Bend. One travels from Portland to Boise, Idaho, and the other connects the Chemult rail station with the Bend area.

### *La Pine*

The newest city in the state has approximately 2,000 residents. There are four at-grade crossing of the tracks, including the last place in Oregon where U.S. 97 crosses a railroad at-grade. This at-grade crossing occurs in the northern portion of the city near the area known as Wickiup Junction. The crossing is exacerbated by the shallow angle by which the track crosses U.S. 97 to go from the west side of the highway to the east. The other at-grade crossings are at Burgess Road, Reed-1<sup>st</sup> Street, and Finley Butte Road

### *Prineville*

With a population of approximately 7,200 the City has the distinction of having the only City-owned railroad in the West. Prineville is situated 19 miles east of Redmond, 29 miles southeast of Madras, and about 30 miles northeast of Bend. The City of Prineville’s shortline connects to the BNSF mainline near O’Neil Junction, which lies about 19 miles west of Prineville and three miles north of Redmond. Prineville has seven at-grade crossings with the bulk of these in the east side of town. While the City is laid out on a N/S grid, the railroad tracks cut through town diagonally.