

**STUDY OF
ECONOMIC OPPORTUNITIES
RAIL ACCESSIBLE LAND SUPPLY IN CENTRAL OREGON**

Submitted to:
COACT Rail Committee



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Glossary of Terms and Acronyms

BNSF – BNSF Railway Company

UP – Union Pacific Railroad

Class I Railroad – Large national carrier

Shortline Railroad – Connecting smaller carrier

COPR – City of Prineville Railroad

ACT – Area Commission on Transportation

COACT – Central Oregon Area Commission on Transportation

DEA – David Evans & Associates

Tangent – Tangent Services, Inc.

STCC – Standard Transportation Commodity Classification code

FRA – Federal Railroad Administration

UGB – Urban Growth Boundary

FTL – Full Truck Load

LTL – Less than Truck Load

I. Executive Summary

The large US railroads have changed their operating models over the last several years. The old model was one where industries were served on industrial spurs which were tied in to the mainline of the serving carrier. The railroad would operate trains which would drop off and pick up cars at various industries along the mainline. As the railroads became more congested, they created operating models which increase velocity on tracks thereby improving capacity. To achieve higher operating speeds, the railroads transitioned to “hook & haul” operations. This model moves away from switching on the mainline toward moving unit trains consisting of 100 or more cars of a single commodity from a major hub to a major hub. A hub can be a population base such as the Portland region, or it can be an origination point for a specific commodity such as a large grain growing region or manufacturing plant (automobiles, wind energy, bio-fuels etc.). These trains consisting of railcars transporting wheat or manufactured goods in containers do not stop along the way and therefore have higher average operating speeds.

The railroads imposed pricing strategies which supported “hook & haul” moves. The railroads reduced the demand for serving industries shipping less than unit train volumes located on a mainline through higher pricing and conversely provided rate incentives for unit train moves. This “hook & haul” model serves certain industries more efficiently and cost effectively, but it has isolated many communities with small population centers, no large unit train shippers, and no hub of rail operations from efficient rail service. Central Oregon has already witnessed some of the effects of these strategies by BNSF which makes rail less competitive with the truck mode. This study analyzes the options for rail service which could be viable over the long term and also identifies industrial sites which are compatible with modern rail operations.

The study area from Madras to La Pine is located on the BNSF Oregon Trunk Line, and UP also has access as far south as Bend. In addition, the COPR provides switching services to local shippers and provides a location, the Freight Depot, for regional shippers to access the rail network by transferring freight from trucks to railcars. This is commonly called a transload/reload operation. It is rare, but highly desirable, to have access to both western railroads because it provides market pressure for the BNSF and UP to compete on pricing. When only one railroad has access, it will typically ensure a movement is priced to cost less than if it moves by truck but other than that have no pricing pressure. It is even more advantageous to have a shortline operator do the switching and railcar aggregation on behalf of shippers and interchange with the Class I carriers. This is a very marketable rail scenario since the shortline can provide a more customized service for a shipper. The strength of the rail network in the Central Oregon region is that it is served by both western Class I railroads as well as a shortline operator who specializes in what the big railroads will no longer do; switching and aggregating cars from individual shippers.

The challenge facing the region is to offset the trend by the railroads of not handling the individual shippers located on the mainline which allows them to use the Oregon Trunk as a route exclusively for through trains.

The second part of this study looked at large land parcels in the region which could be developed for rail served industries. A scoring matrix was created which ranked the sites according to criteria necessary for efficient rail transportation and for compatibility with local land use regulations. There are several sites which could be developed for rail-served industries, the caveat being that sustainable long-term rail service for shippers of less than unit train volumes will likely not be possible along the mainline. The sites along the main are, however, large enough to develop for unit train shippers. These sites could also accommodate shippers of smaller volumes who could then truck the product to the COPR Freight Depot.

The market for unit train shippers who would consider development in Central Oregon is likely limited. Such shippers generally are closer to commodity growing areas, manufacturing nodes, or population centers.

In considering unit train shippers, it is important to ensure that there is sufficient room in the railroad right-of-way for siding capacity (additional tracks) to support mainline operations. The railroad needs a place to drop off the train. During the course of the study it was discovered that almost all support infrastructure between Bend and Madras is compromised by at-grade crossings. New infrastructure can be developed, but the costs must take into account the need for grade separations.

Freight volumes into and out of the region are currently depressed. Once the market rebounds, historical data suggest that there ought to be enough freight to support rail/truck modal choice. There are some opportunities to grow these volumes by supporting the utilization of the COPR Freight Depot operation. The region can also secure future efficient and competitive rail service by developing certain industrial sites for rail-served industries. These sites have been identified, have been ranked according to their ability to meet the criteria in the scoring matrix, and the highest ranked sites are:

1. Prineville Junction (Deschutes County)
2. Crook County Heavy Industrial Zone
3. Northwest Industrial Park (Prineville)
4. Madras Industrial Zone

Other sites located along the mainline may be suitable for development for unit train shippers. The Department of State Lands (DSL) site in Deschutes County is approximately 1,000 acres of undeveloped land which is a unique asset on the West Coast. This provides an opportunity to build all the rail infrastructure on site and still have ample acreage for a large industrial development.

Securing long-term efficient and competitive rail service may be possible by having public policy which encourages the following:

1. Site non-unit train, rail-served industries along the COPR
2. Along the BNSF mainline site only unit train industries and ensure adequate on and off-site support tracks
3. For shippers of less than unit train volumes currently located on the mainline or new shippers locating in the vicinity of the mainline, support trucking freight to COPR Freight Depot for transference to rail mode

II. Background

Central Oregon is taking a regional view with regards to industrial development and the planning process. In order to support economic development efforts, the cities and counties are undertaking this study to better understand the area's rail assets; operations, infrastructure, facilities, and road connectivity; and assessing industrial parcels' compatibility with the transportation system.

The various jurisdictions in Central Oregon have recognized that there are some problematic issues associated with rail service in the region. As with many areas around the country, the conflict between roads and rail has become more intense as urban development has become denser. In addition, the railroad operating model has been undergoing significant change. In the past, the railroads would serve industries which were located anywhere on their mainline, which was the expectation by both the railroad and the shipper. Today, the large railroads will not automatically provide service nor allow a physical connection to be built onto the mainline. Rather, it is incumbent upon communities and shippers to design infrastructure and business models which accommodate the "hook & haul" mentality of the Class I railroads.

The rail committee of COACT determined that there was a need to study the crossings issue as well as the preservation and enhancement of railroad freight mobility and identifying land parcels which provide unique transportation attributes. These studies can then inform current and future regional planning efforts to ensure adequate industrial land supply which is well suited for transportation dependent industries.

Connectivity to the rail network is vital for economic development efforts in the region. At the conclusion of this study, the COACT rail committee will have a solid understanding of the following:

- Operations and motivations of the railroads which serve Central Oregon
- Condition of existing infrastructure and additional infrastructure needed to support industrial development
- Site configurations and locations best suited for transportation-dependent industries

Concurrent with this study, the Oregon Department of Transportation (ODOT) Rail Division is taking a similar look at other regions around the state. The outcome of the Central Oregon study will be incorporated into the final ODOT rail study. This study will eventually inform the Oregon Rail Plan, which is scheduled to be updated in 2009 depending on funding.

III. Current Conditions

A. Rail Operations and Infrastructure

BNSF and UP

Both BNSF and UP have high-capacity east/west mainlines along the Columbia River Gorge; the traffic on these lines comprises the major market for both carriers into and out of the Portland metropolitan area, the largest rail hub in Oregon. The volumes are driven by consumer products for the population center in the region; agricultural, mineral bulk, and automobile shippers at the Ports of Portland and Vancouver, WA; as well as various manufacturing activities including steel products and transportation equipment.

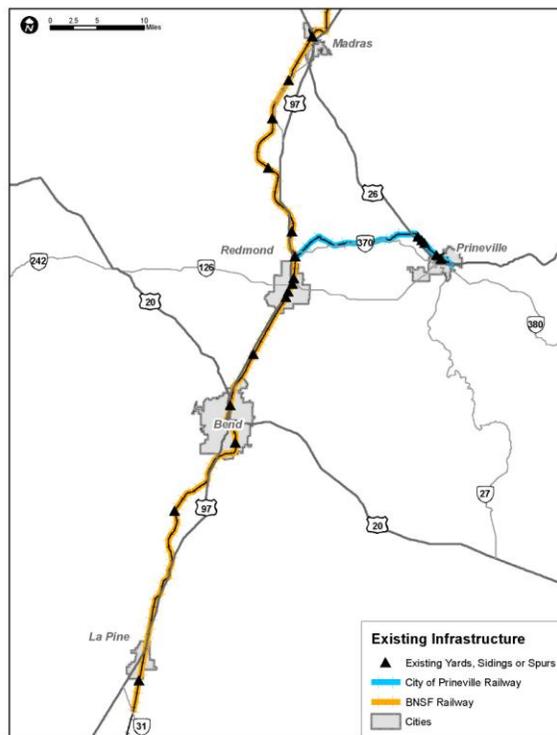
The north/south corridors are secondary in terms of volumes handled. The Central Oregon region is bisected by the BNSF Oregon Trunk Line. This track runs between Wishram, WA, and Klamath Falls, OR, as a single-track main line. There are locations with an additional track called a siding. This second track allows for; northbound and southbound trains to pass each other, changes of crew, and setting out cars at certain locations. The line has a maximum capacity of approximately 14 to 16 trains per day under current infrastructure and operating conditions. Between Wishram and Madras there are sections which are limited to operating speeds of between 10 and 35 miles per hour due to the physical landscape creating excessive curvature of the tracks and the general condition of the tracks. In addition, there are several tunnels which were constructed when railcars were smaller and where double-stack intermodal operations were not yet conceived. Additional capacity and operating speeds can be created by adding siding capacity at strategic locations.

The BNSF currently runs four to six trains per day on the Oregon Trunk. The UP has operating rights along the entire line but does not typically run through trains on that line because they have a higher capacity route in the Willamette Valley. UP will occasionally utilize the Oregon Trunk as a reliever route when capacity is constrained on the Willamette Valley track, when maintenance is taking place, or when a natural or manmade event closes a section of their mainline. In winter of 2008, a massive landslide near Oakridge, OR, incapacitated the main route for more than three months during which time the UP operated north/south traffic over the Oregon Trunk as well as along the Gorge Route to Salt Lake City and then south. While the UP has operating rights, they do not have commercial rights south of Bend. UP cannot quote rates and service to shippers located south of Bend to Klamath Falls. All UP traffic to or from Central Oregon is interchanged with BNSF in Klamath Falls for distribution in the Bend-to-Madras corridor.

Mainline operating crews are restricted to working a maximum 12-hour shift. The railroad operations are divided into crew districts which are determined by approximately how far a crew can operate a train in this 12-hour window. This results in predetermined locations where crew changes occur. Along the Oregon Trunk, these crew-change points are Wishram, WA; and Bend and Klamath Falls, OR. Changing crews requires a landing point off of the mainline which can accommodate the entire length of a train so it clears the mainline and does not interfere with any other rail traffic. The crew change point

in Bend is Cascan siding just south of the Bend Depot. This is where through trains will pull over in order to allow one crew to get off and a new one to take over.

Trains arriving or departing with local traffic for Central Oregon are also delivered to Cascan siding and are then handled by a road switcher. There are two local switching crews, known as jobs, working in Bend five days per week, one in the morning Monday through Friday and one on swing shift Sunday through Thursday. These crews can operate within 50 miles of Bend and also for a maximum of 12 hours per shift. They have the responsibility of getting the loaded and empty railcars delivered to and picked up from the local industries. These two jobs work between Bend and Madras. Train activity southbound is limited to a daily pickup of cars at the Round Butte siding in Metolius, and picking up repositioned and fully-serviced locomotives on Fridays. Northbound trains set out cars daily at Cascan siding for Bend, Redmond, Prineville, Culver, Round Butte, and Madras.



B. City of Prineville Railroad

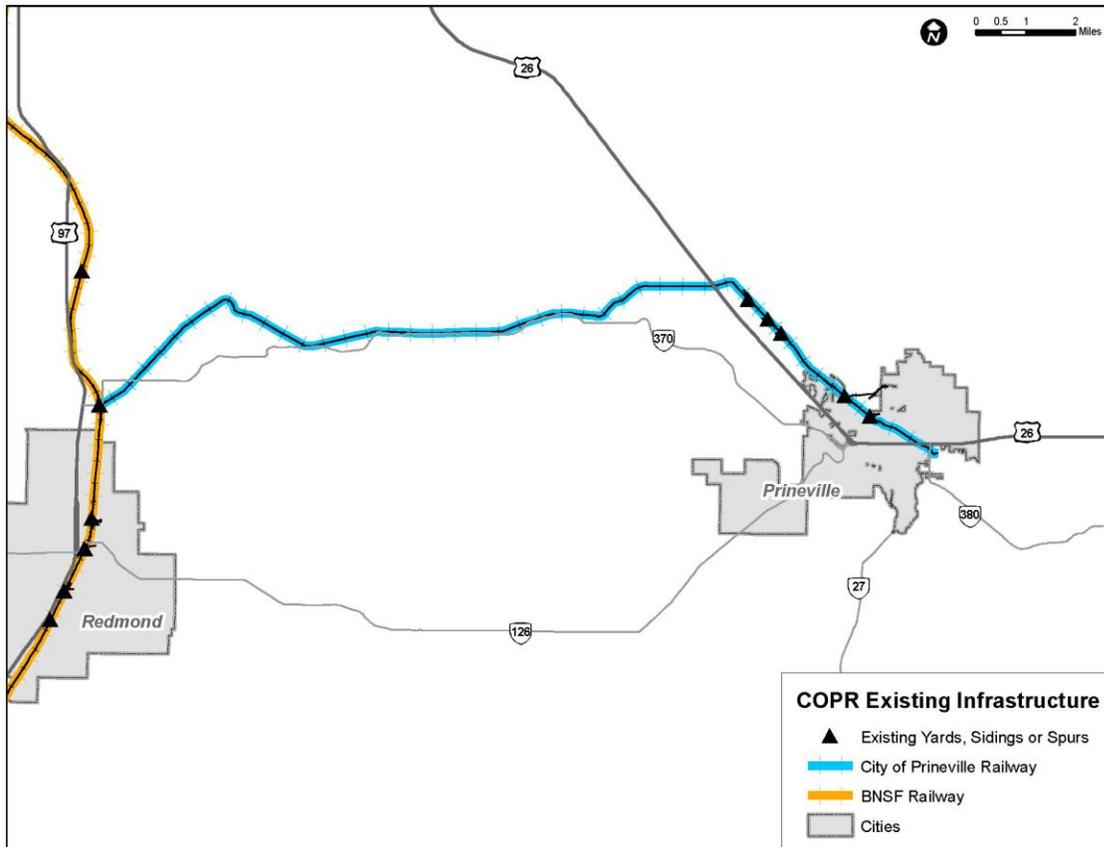
The COPR is a publicly-owned 18-mile-long shortline railroad which runs from Prineville Junction--just north of Redmond--to the City of Prineville and provides on-demand switching services for the shippers located along the line. COPR interchanges with BNSF at Prineville Junction three to five times per week depending on volumes. In addition, the railroad offers an excursion dinner train during the summer months on Friday, Saturday, and Sunday evenings.

BNSF is obliged by the Surface Transportation Board as a common carrier to provide service to shippers on their shortline partners. Interchange is governed by an agreement between the BNSF and COPR which stipulates the location of interchange, maintenance responsibilities, repair, and operation of tracks and equipment related to the interchange. The agreement also sets the rates which the BNSF will pay COPR. All rate setting to the customer is done by BNSF who in turn pays COPR for switching the customer. The interchange agreement can be cancelled by either party with 30 days' notice, but the BNSF cannot arbitrarily cease serving the shipper base due to its obligations as a common carrier. As with other shippers on the BNSF main, however, the railroad could incrementally price the business high enough that rail service becomes uncompetitive with truck. COPR also has an interchange agreement with UP. Should BNSF and UP ever agree to discontinue the current practice whereby BNSF hauls UP business, and UP would choose to serve its customers directly, then this agreement would govern the moves between COPR and UP.

Shortline operations are usually rail lines which were spun off by a Class I carrier. The COPR is unique in that it has always been a municipal railroad. Shortline operators have lower cost structures and more flexible operating rules which allows them to provide a more customized and cost-effective service for shippers. Most shortline operations suffer from years of deferred maintenance on the tracks. The business volumes can usually cover operating costs, but rarely all of the upgrades required in the underlying infrastructure. COPR is currently rated under FRA standard as a Class II railroad which allows operating speeds of 25 miles per hour. COPR was also successful in getting approximately \$1 million in federal stimulus funds this year. With that investment, the management of the COPR believes that the railroad will maintain a Class II rating for the next 20 years with minimal maintenance. This means that the COPR is in very good condition relative to many other shortline properties nationally.

On a typical day, the railroad will switch four locations; Les Schwab Tires, the City of Prineville Freight Depot, Fontana Truss Plant, and Prineville Sawmill. The train takes the loaded cars to Prineville Junction for interchange with BNSF and then picks up empty cars to switch in to the same industries.

The COPR owns and operates the Freight Depot. Through grants from ConnectOregon I & II, the railroad developed a public rail-served facility which can store products and load and unload railcars. The Class I railroads no longer provide facilities where truck/rail transfer can take place. The COPR facility enables shippers in the region who are not directly rail served to access the network. The Freight Depot serves more than 25 customers.



C. Truck Operations

As with rail, Portland is the main hub and center of operations for the national trucking companies serving the region. The trucking industry is mostly comprised of the following segments:

- National full truckload (FTL) carriers
- National less than truckload (LTL) carriers
- Regional trucking companies
- Private shippers' fleets

The truckload carriers serve Central Oregon out of their Portland hubs and are generally bringing products into the area and returning empty to Portland to pick up loads for other destinations. This imbalance creates higher costs and less efficiency for regional shippers. Most of these carriers are in the region on a daily or weekly basis. LTL carriers have terminals in Central Oregon and serve shippers which typically ship high-value/low-volume products. The service levels from the FTL and the LTL carriers remain fairly constant with some fluctuations due to overall market conditions.

The current depressed market has most severely affected the regional carriers. During this past year, the region has lost nearly 50 percent of its trucking capacity the majority of which were smaller operators who are heavily dependent on construction materials, wood products and regional drayage. Nearly all of

the logging trucks are idle. Regional carriers also haul international containers from ports such as Portland, Seattle and Tacoma into Central Oregon.

In addition, there are several companies in the region such as Les Schwab Tires, which own their own trucking fleets. They will haul their own products and occasionally will also handle products for other shippers.

Several shippers are now trucking product to the City of Prineville Freight Depot in order to load products into railcars.

D. Regional Road Traffic Flows

Freight travels north-south through the study area primarily via truck on US Highway 97. Freight travels east-west through this region primarily via truck on US Highways 20 and OR 126/US26.

US Highways 97, 20 and 26 (west of Madras) are designated as part of the State Highway Freight System in the 1999 Oregon Highway Plan. Truck traffic experiences severe congestion within the urban areas of Central Oregon.

The City of Bend was the most congested point on the US Highway 97 corridor from California to Washington until the bypass (the Bend Parkway) opened to traffic in 2001. Average Daily Traffic (ADT) on US Highway 97 is in excess of 30,000 vehicles per day (vpd). All of the BNSF crossings on both the old alignment of US Highway 97 (Business 97) and the new alignment of US Highway 97 (the Bend Parkway) within Bend are grade-separated crossings. However, there are still several at-grade railroad crossings on arterial roadways in Bend, most notably Cooley Road, Butler Market Road, Revere Avenue, Olney Avenue, Colorado Avenue, Wilson Avenue, Reed Market Road and Baker Road. These at-grade crossings create not only safety problems, but also create delays to motor vehicles several times a day, resulting in increased air pollution caused by vehicles idling. In Bend, the Deschutes River, the Bend Parkway, and the BNSF mainline combine to create significant barriers to east-west travel.

After completion of the Bend Parkway in 2001, the City of Redmond became the most congested point on the US Highway 97 corridor until the Redmond bypass opened to traffic in 2008. There are no BNSF crossings on US Highway 97 in Redmond; however, there are several at-grade railroad crossings on other arterial roadways in Redmond, most notably Evergreen Avenue (OR Highway 126), Veterans Way, and Airport Way. Similar to Bend, the Dry Canyon, US Highway 97, the BNSF mainline, and the Central Oregon Irrigation District main canal combine to create significant barriers to east-west travel.

The other cities in Central Oregon have fewer rail and automobile conflict points. In La Pine, there is one at-grade rail crossing on US Highway 97 and several others on local roads. In Madras, the BNSF is grade-separated where it crosses US Highway 26; however, several at-grade crossings exist on local roads. In Prineville, there is one at-grade COPR crossing on US Highway 26 and several others on local roads.

IV. Market/Commodity Flow

The latest commodity flow data available at ODOT is from the 1997 Commodity Flow Database. The department has, however, just engaged a consulting team to update the data and this should be available by fall of 2009. For this work 1997 data will be utilized.

In Oregon, forest products dominate the rail volumes which originate in the state. Agricultural and chemical products also represent a large percentage of the volumes and much of these volumes are potash, soda ash, and grain which originate out of state and move to foreign markets through the Port of Portland.

A. Top 10 Rail Commodities in Oregon by Tonnage, 1997

STCC	Commodity Name	Rail Tons	Percent
1	Farm Products	11,204,654	20.3%
24	Lumber or Wood Products	10,078,785	18.3%
28	Chemicals or Allied Products	7,397,113	13.4%
46	Misc. Mixed Shipments	6,493,123	11.8%
26	Pulp, Paper or Allied Products	4,618,195	8.4%
20	Food or Kindred Products	3,942,420	7.1%
40	Waste or Scrap materials	1,929,383	3.5%
32	Clay, Concrete, Glass, or Stone	1,846,816	3.3%
33	Primary Metals Products	1,443,706	2.6%
37	Transportation Equipment	1,125,471	2.0%
	All other Commodities	5,145,577	9.3%
	Total	55,225,243	100.0%

Of this traffic, 20.6 million tons of freight is through traffic which leaves 34.6 million tons of freight which originated or terminated in Oregon in 1997. Multnomah County volumes represent the dominant share of Oregon rail movements with 41 percent of originating tons and 69 percent of terminating tons. Deschutes County originated 531,580 tons which represents 4 percent of the total volume. Other Central Oregon counties did not rank among the top ten counties. The rail data for the ACT region are as follows:

B. Top Rail Commodities in the Central Oregon ACT Area, 1997 in TONS (1,000s)

STCC	Commodity Name	Inbound	Outbound	Through
24	Logs, Lumber, Wood Products	43	449	295
14	Nonmetallic Minerals	0	109	4
30	Rubber or Misc. Plastics	56	0	0
29	Petroleum or Coal Products	46	0	230
32	Clay, Concrete, Glass Or Stone	41	9	6
28	Chemicals or Allied Products	20	0	170
1	Farm Products	0	12	295
33	Primary Metals Products	4	0	498
	Total	210	579	1,498

We can presume that the overall rail market, according to these data, is relatively small with the majority of freight on the Oregon Trunk Line being through traffic. Again, we caution that these are old data and the new data may reveal more robust volumes up through 2007. We do not, however, anticipate that there has been enough growth in the market to significantly affect the overall rail market share of Central Oregon relative to the rest of the state.

List of current rail shippers

Madras

- Albina Asphalt
- Ferrell Gas
- Transload facility
- Mid Columbia Plywood
- Warm Springs Lumber

Redmond

- Ferrell Gas
- Ed Staub & sons
- Mid State Fertilizer

Prineville

- Freight Depot
- Round Butte Seed Growers (located in Culver, truck to COPR)
- Fontana Truss
- Les Schwab Tires
- Prineville Sawmill

Bend

- Jeld Wen
- CF&N
- Gresham Transfer
- Pacific Pride
- Amerigas
- Haines Distribution

While the past and current existing rail market is relatively small, we believe that there is potential to capture additional volumes by exploring the dynamics of the trucking market.

C. Top Truck Commodities in the Central Oregon ACT Area, 1997 in TONS (1,000s)

STCC	Commodity Name	Internal	Inbound	Outbound
24	Lumber or Wood Products	278	3,017	7,085
14	Nonmetallic Minerals	2,694	145	924
32	Clay, Concrete, Glass or Stone	50	378	1,424
1	Farm Products	0	310	551
20	Food or Kindred Products	0	394	65
30	Rubber Or Misc. Plastics	1	184	187
40	Waste or Scrap materials	165	28	78
13	Petroleum Products/Natural Gas	0	244	0
29	Petroleum or Coal Products	0	80	7
28	Chemicals or Allied Products	0	42	43
	All other Commodities	0	459	105
	Total	3,188	5,281	10,469

These data show that there is approximately 18.9 million tons of freight moving into and out of the region by truck every year. If 5 percent of that volume were converted to the rail mode, that would be the equivalent of approximately 9,500 railcars per year which would more than double the existing volumes (according to these data). The combined volumes along with railroad operations conducive to the “hook & haul” dynamics of the Class I railroad could ensure competitive rail service for the long term.

V. Industrial Sites

A. *Site Characteristics and Locations*

The consultant worked with the Cities of Prineville, Redmond, Bend, La Pine and Madras, and Crook, Deschutes and Jefferson counties to identify existing and potential rail industrial sites within the study region. To identify the sites, the project team reviewed zoning maps, Comprehensive Plan maps, aerial photos, Geographic Information Systems (GIS) data and railroad track charts, and relied on local knowledge of land uses in the region.

The primary characteristics that were considered as desirable in the site identification were site size, zoning, and proximity to the railroads. An initial screening of the maps was performed to identify potential sites. Sites were initially identified if they were over 40 acres in size. Sites were also identified if they are currently zoned Industrial, or have Comprehensive Plan designation as Industrial. Sites were also identified if they are adjacent to the BNSF or COPR. Sites were not ruled out if they did not possess all three of those desirable characteristics. Some sites initially identified possessed only one or two of those desirable characteristics.

The secondary characteristics that were considered as desirable in the site identification were proximity to state highways and whether the site is located inside a UGB. Having access to a major highway (specifically, US Highways 97, 20, and 26) was viewed as a desirable characteristic due to their designation as freight corridors. For scoring purposes we defined access as proximity to the highways. The constraints to access are reflected in the cost of development and at grade crossings criteria. Being located inside a UGB was viewed as a desirable characteristic because the sites would comply with one of the purposes of Statewide Planning Goal 14 (Urbanization), which is to accommodate urban employment inside UGBs.

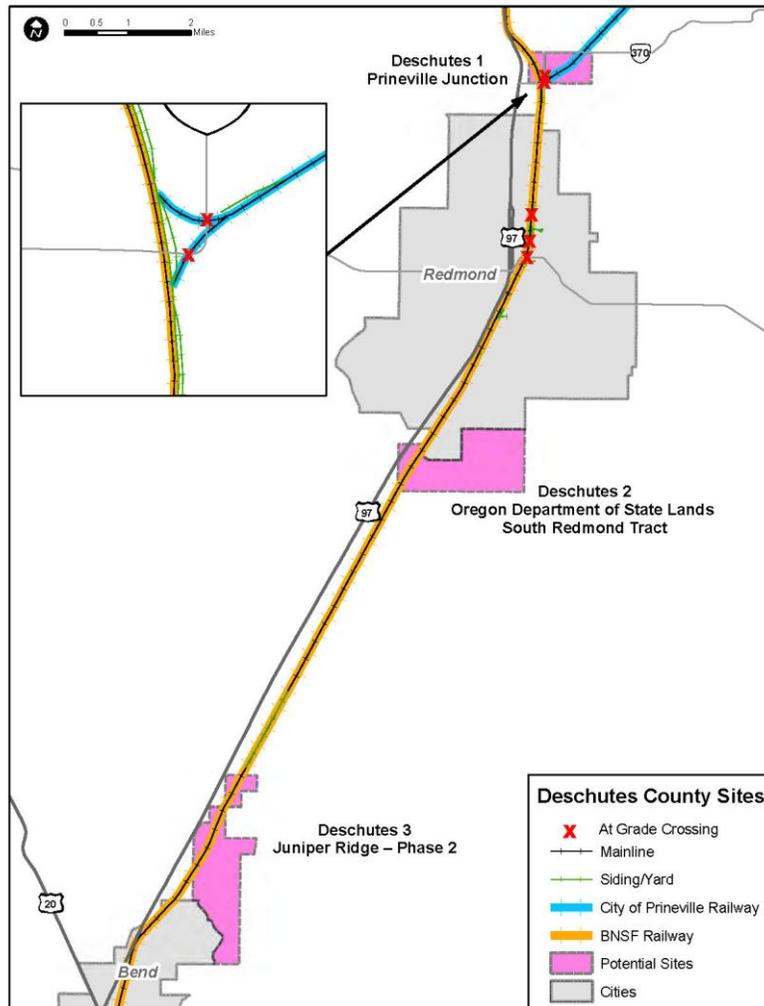
In total, 28 potential rail industrial sites were identified. The breakdown by jurisdiction is as follows:

- 4 sites in the City of Prineville
- 4 sites in the City of Redmond
- 8 sites in the City of Bend
- 2 sites in the City of La Pine
- 1 site in the City of Madras
- 1 site in Crook County
- 3 sites in Deschutes County
- 5 sites in Jefferson County

The current zoning, current Comprehensive Plan designation, permitted uses, physical description, advantages, and disadvantages of each of the identified sites are described below.

Following the descriptions of the 28 potential rail industrial sites identified, the sites were scored in a matrix, using 10 scoring criteria to assess their suitability for rail-served development, as described below. The permitted uses under the current zoning are listed for all jurisdictions in the appendix.

Deschutes County



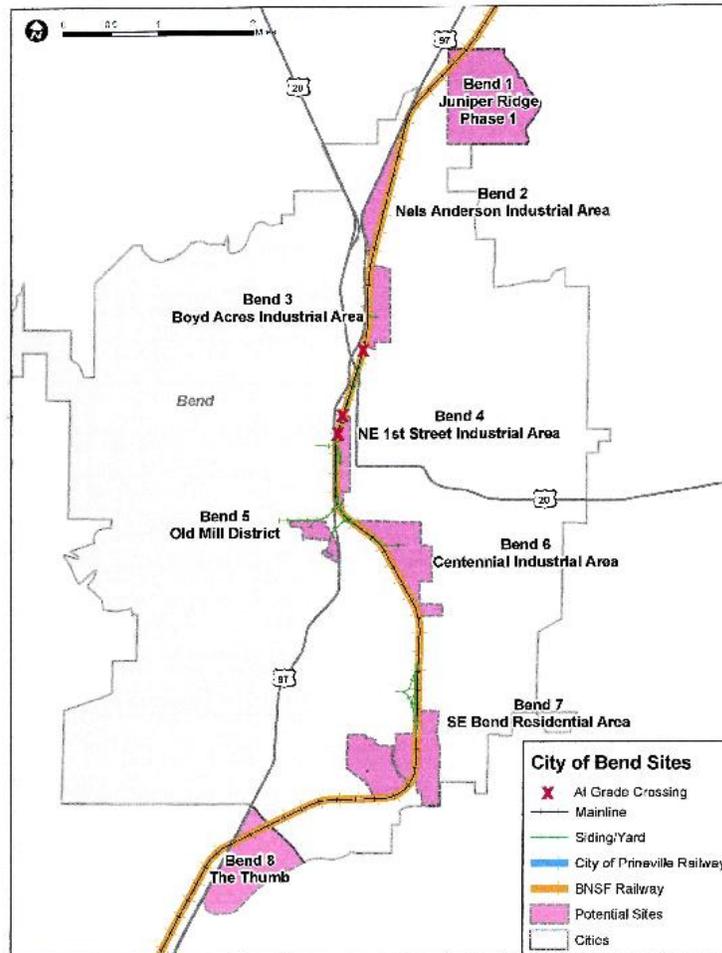
- **Prineville Junction**

- Current Zoning: MUA10 (Multiple Use Agricultural) and EFUTE (Exclusive Farm Use Terrebonne Subzone).
- Current Comprehensive Plan Designation: Urban Reserve Area and Agriculture.
- Physical Description: Approximately 291 acres north of the city limits of Redmond, south of O’Neil Highway (OR Highway 370), east of US Highway 97, west of NE 17th Street, and outside, but immediately north of the City of Redmond UGB.
- Advantages: Only site in the tri-county area that abuts both the BNSF and COPR. Good proximity to US Highway 97.
- Disadvantages: Requires a zone change, Comprehensive Plan Map amendment and expansion of the City of Redmond UGB. Mostly divided into small parcels.

- **Oregon Department of State Lands (DSL) South Redmond Tract**

- Current Zoning: EFUAL (Exclusive Farm Use Alfalfa Subzone).
 - Current Comprehensive Plan Designation: Agriculture.
 - Physical Description: Approximately 1,000 acres south of the city limits of Redmond, east of US Highway 97, south of Juniper Golf Course and the Deschutes County Fairgrounds, and outside, but immediately south of the Redmond UGB.
 - Advantages: Large parcel under single ownership (Oregon DSL). Almost entirely vacant. Proximity to US Highway 97. The DSL South Redmond Tract Land Use and Management Plan (October 2008) proposes to rezone approximately 540 acres east of the railroad to Industrial and preserve an approximately 150-ft. wide corridor along the southern edge of the property (approximately 47 acres) as a multimodal transportation corridor, which could be used for a railroad spur.
 - Disadvantages: Requires a zone change, Comprehensive Plan Map amendment and expansion of the City of Redmond UGB.
- **Juniper Ridge – Phase 2**
 - Current Zoning: EFUAL (Exclusive Farm Use Alfalfa Subzone).
 - Current Comprehensive Plan Designation: Agriculture.
 - Physical Description: Approximately 1,002 vacant acres north of the city limits of Bend, north of Cooley Road, south of Tumalo Road, east of US Highway 97, west of Deschutes Market Road, and outside the City of Bend UGB.
 - Advantages: Large parcel under single ownership (City of Bend). Almost entirely vacant. Good proximity to US Highway 97.
 - Disadvantages: Requires a zone change, Comprehensive Plan Map amendment, and expansion of the City of Bend UGB. Vehicular access to/from US Highway 97 is primarily via Cooley Road. The signalized intersection of Cooley Road and Highway 97 is currently operating at a failing level of service. The City of Bend and ODOT are planning a grade-separated interchange at this location. The City of Bend is considering charging developers at Juniper Ridge \$10,000+ per p.m. peak-hour trip generated by their development to pay for the improvements at Cooley Road and Highway 97.

City of Bend



- **Juniper Ridge Phase 1**

- Current Zoning: EFUTRB (Exclusive Farm Use) and UAR (Urban Area Reserve).
- Current General Plan Designation: IL (Industrial Light).
- Physical Description: Approximately 515 vacant acres north of the city limits of Bend, but partially inside the City of Bend UGB.
- Advantages: Partially inside City of Bend UGB. General Plan designation IL. Large parcel under single ownership (City of Bend). Almost entirely vacant.

- Disadvantages: Requires a zone change. Vehicular access to/from US Highways 97 and 20 is primarily via Cooley Road. The signalized intersection of Cooley Road and Highway 97 is currently operating at a failing level of service. The City of Bend and ODOT are planning a grade-separated interchange at this location. The City of Bend is considering charging developers at Juniper Ridge \$10,000+ per p.m. peak-hour trip generated by their development to pay for the improvements at Cooley Road and Highway 97. In spite of its IL General Plan designation, the City of Bend is considering developing this first phase of Juniper Ridge with residential uses. Current city concept plans do not contemplate rail access to the site.
- **Nels Anderson Industrial Area**
 - Current Zoning: IL (Industrial Light).
 - Current General Plan Designation: IL (Industrial Light) and CG (Commercial General).
 - Physical Description: Approximately 107 acres east of US Highway 97, west of the railroad, north of Empire Avenue, and south of Cooley Road, mostly divided into small parcels and built-out.
 - Advantages: Inside City of Bend UGB. Zoned IL. General Plan designation IL and CG. Good proximity to US Highway 97.
 - Disadvantages: Mostly divided into small parcels and built-out. This site will be affected by the Hwy 97 relocation.
- **Boyd Acres Industrial Area**
 - Current Zoning: IL (Industrial Light) and IG (Industrial General).
 - Current General Plan Designation: IL (Industrial Light) and IG (Industrial General).
 - Physical Description: Approximately 125 acres east of the railroad, west of Boyd Acres Road, north of Butler Market Road, and south of Empire Avenue, mostly divided into small parcels and built-out.
 - Advantages: Inside City of Bend UGB. Zoned IL and IG. General Plan designation IL and IG. Good proximity to US Highway 97.
 - Disadvantages: Mostly divided into small parcels and built-out.
- **NE 1st Street Industrial Area**
 - Current Zoning: IL (Industrial Light).
 - Current General Plan Designation: IL (Industrial Light).
 - Physical Description: Approximately 71 acres east of the BNSF Railroad, west of NE 2nd Street, north of Colorado Avenue and south of Revere Avenue, mostly divided into small parcels and built-out.
 - Advantages: There are existing railroad spurs in this area. Inside City of Bend UGB. Zoned IL. General Plan designation IL.
 - Disadvantages: Mostly divided into small parcels and built-out. Grade-separated crossing of the railroad and US Highway 97 at Greenwood Avenue and Franklin Avenue create physical barriers

to aggregating parcels. The City of Bend has tentative plans (“The Central Area Plan”) to rezone this area to mixed-use (commercial and residential).

- **Old Mill District**

- Current Zoning: IL (Industrial Light) and IG (Industrial General).
- Current General Plan Designation: IG (Industrial General) and CG (Commercial General).
- Physical Description: Approximately 54 acres east of Bond Street, west of US Highway 97, north of Wilson Avenue and south of Colorado Avenue, mostly large parcels and vacant.
- Advantages: Inside City of Bend UGB. Zoned IL and IG. General Plan designation IG and CG. Mostly large, vacant parcels and under single ownership (William Smith Properties). Good proximity to US Highway 97.
- Disadvantages: Rail spur to site no longer in service. The uses in this area are no longer industrial but mixed-use commercial and professional office. These existing uses would likely conflict with industrial activities associated with rail.

- **Centennial Industrial Area**

- Current Zoning: IL (Industrial Light) and IG (Industrial General).
- Current General Plan Designation: IL (Industrial Light) and IG (Industrial General).
- Physical Description: Approximately 229 acres east of the railroad, west of NE 15th Street, north of Reed Market Road, and south of Alden Avenue, mostly divided into small parcels and built-out.
- Advantages: Inside City of Bend UGB. Zoned IL and IG. General Plan designation IL and IG.
- Disadvantages: Mostly divided into small parcels and built-out.

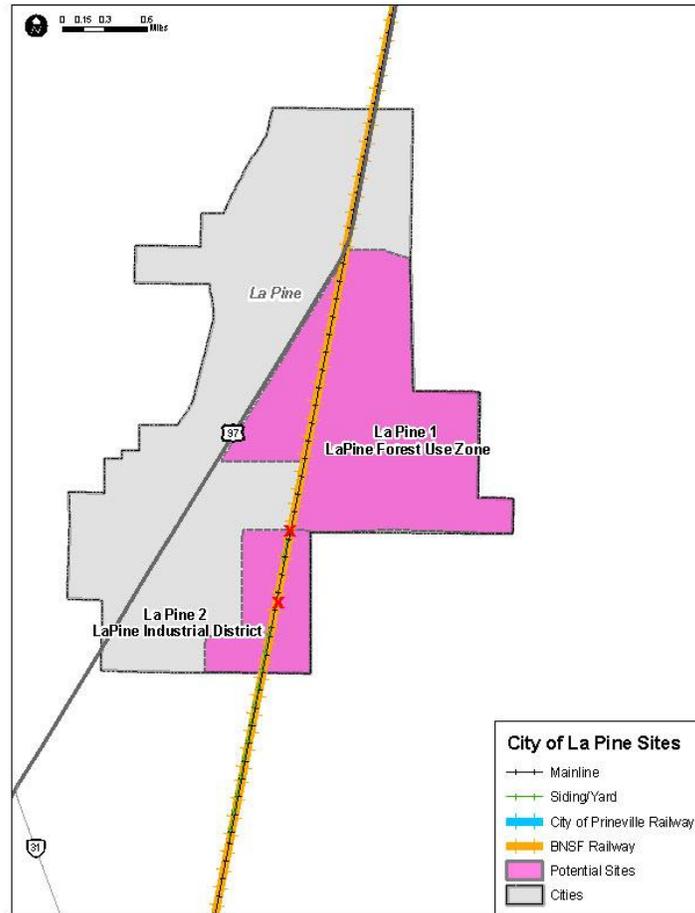
- **SE Bend Residential Area**

- Current Zoning: RS (Residential Urban Standard Density).
- Current General Plan Designation: RS (Residential Urban Standard Density).
- Physical Description: Approximately 373 vacant acres east of the railroad, west of SE 15th Street, north of Knott Road, and south of Murphy Road.
- Advantages: Inside City of Bend UGB. Large parcels under (mostly) single ownership (Ward family). Almost entirely vacant.
- Disadvantages: Requires a zone change and General Plan Map amendment. Includes three Areas of Special Interest (ASIs), typically lava outcroppings, which would need to be preserved.

- **The Thumb**

- Current Zoning: UAR (Urban Area Reserve) and RR-10 (Rural Residential).
- Current General Plan Designation: UAR (Urban Area Reserve) and Rural Residential Exception Area
- Physical Description: Approximately 351 vacant acres south of the city limits of Bend, partially inside the City of Bend UGB.
- Advantages: Almost entirely vacant. Good proximity to US Highway 97.
- Disadvantages: Requires a zone change and General Plan Map amendment. Reliant on successful expansion of the City of Bend UGB as currently proposed. The City of Bend has tentative plans (“Bend Urban Area Framework Plan Map,” December 16, 2008) to rezone this area to 21 acres of CG (Commercial General), 112 acres of Hospital (a new zone), 93 acres of MDOZ (Medical District Overlay), 67 acres of RM (Residential Urban Medium Density), and 57 acres of Special Site (a new zone).

City of La Pine



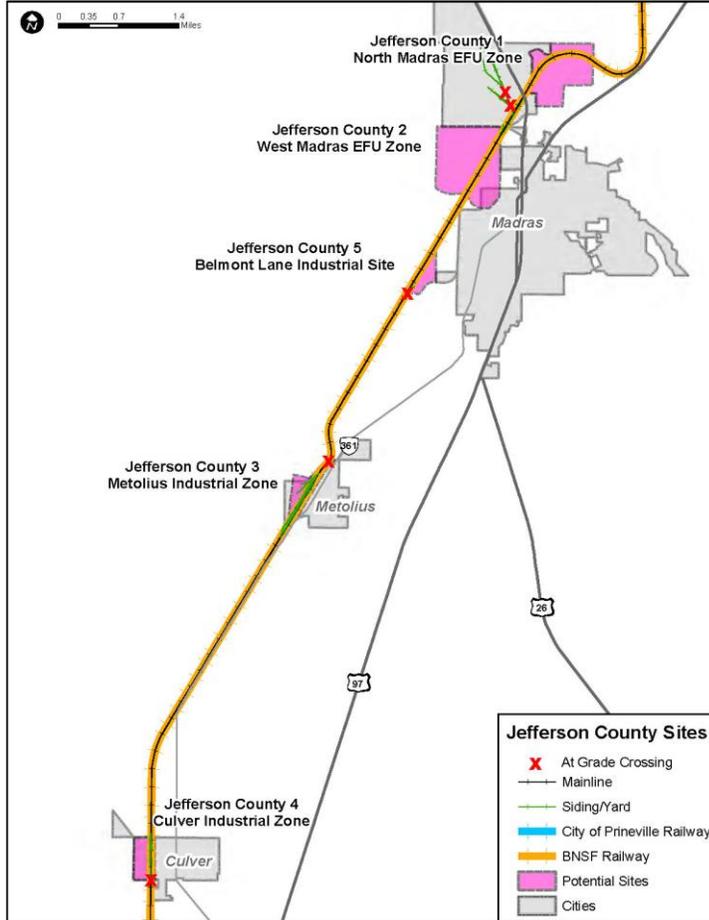
- **La Pine Forest Use Zone**

- Current Zoning: F1 (Forest Use 1) and OS&C (Open Space & Conservation).
- Current Comprehensive Plan Designation: FOREST (Forest Use) and OS&C (Open Space & Conservation).
- Physical Description: Approximately 1,442 vacant acres north of Reed Road, south of Burgess Road, east of US Highway 97, and west of the La Pine City Limits.
- Advantages: Inside the La Pine City Limits. Large parcels almost entirely vacant. Good proximity to US Highway 97.
- Disadvantages: Requires a zone change and Comprehensive Plan Map amendment. No commercial access by UP Railroad. Out of district for switching services by the BNSF.

- **La Pine Industrial District**

- Current Zoning: LPI (Industrial District).
- Current Comprehensive Plan Designation: LPI (Industrial District).
- Physical Description: Approximately 353 acres north of Spring Butte Lane, south of 1st Street, east of Mitts Way, and west of the La Pine City Limits.
- Advantages: Inside the La Pine City Limits. Zoned LPI and Comprehensive Plan designation LPI.
- Disadvantages: Mostly divided into small parcels and approximately 50 percent built-out. No commercial access by the UP. Out of district for switching services by the BNSF. Congestion issues at 1st-Reed/97 will require future installation of a traffic signal.

Jefferson County



- **North Madras EFU Zone**

- Current Zoning: A1 (Exclusive Farm Use – High Value).
- Current Comprehensive Plan Designation: Exclusive Farm Use.
- Physical Description: Approximately 272 acres north and east of the City of Madras UGB.
- Advantages: Large parcel almost entirely vacant.
- Disadvantages: Outside the City of Madras UGB. Requires a zone change, Comprehensive Plan Map amendment, and expansion of the City of Madras UGB.

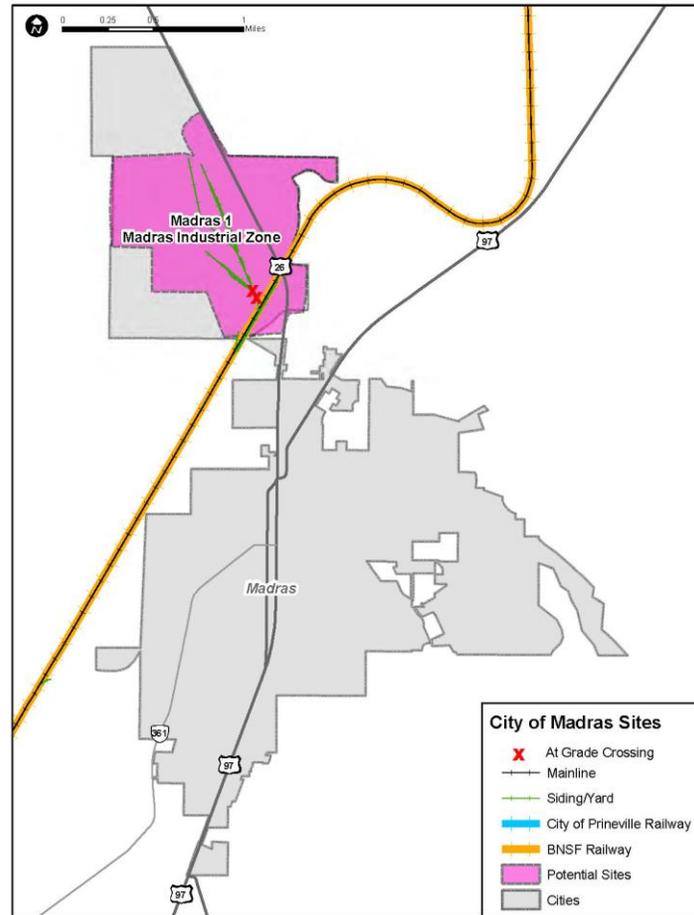
- **West Madras EFU Zone**
 - Current Zoning: A1 (Exclusive Farm Use – High Value).
 - Current Comprehensive Plan Designation: Exclusive Farm Use.
 - Physical Description: Approximately 408 acres south and west of the Madras UGB.
 - Advantages: Large parcel almost entirely vacant.
 - Disadvantages: Outside the City of Madras UGB. Requires a zone change, Comprehensive Plan Map amendment, and expansion of the City of Madras UGB.

- **Metolius Industrial Zone**
 - Current Zoning: M1 (Industrial).
 - Current Comprehensive Plan Designation: M1 (Industrial).
 - Physical Description: Approximately 79 acres northwest of Washington Avenue and southeast of the City of Culver city limits and UGB.
 - Advantages: Zoned M1 (Industrial). Comprehensive Plan Designation M1 (Industrial). Large parcel. Inside the City of Metolius UGB.
 - Disadvantages: Not currently switched by BNSF.

- **Culver Industrial Zone**
 - Current Zoning: M1 (Industrial).
 - Current Comprehensive Plan Designation: M1 (Industrial).
 - Physical Description: Approximately 80 acres north of SW Iris Lane, south of West A Street, east of the City of Culver city limits and UGB, and west of West 6th Avenue.
 - Advantages: Zoned M1 (Industrial). Comprehensive Plan Designation M1 (Industrial). Inside the City of Culver UGB.
 - Disadvantages: Mostly divided into small parcels and built-out.

- **Belmont Lane Industrial Zone**
 - Current Zoning: IR (Industrial Reserve).
 - Current Comprehensive Plan Designation: Rural Land.
 - Physical Description: Approximately 48 acres north of Belmont Lane, south and east of the BNSF Railroad and west of the Madras City Limits and UGB.
 - Advantages: Large parcel under single ownership (City of Madras).
 - Disadvantages: Outside the City of Madras UGB. No direct highway access.

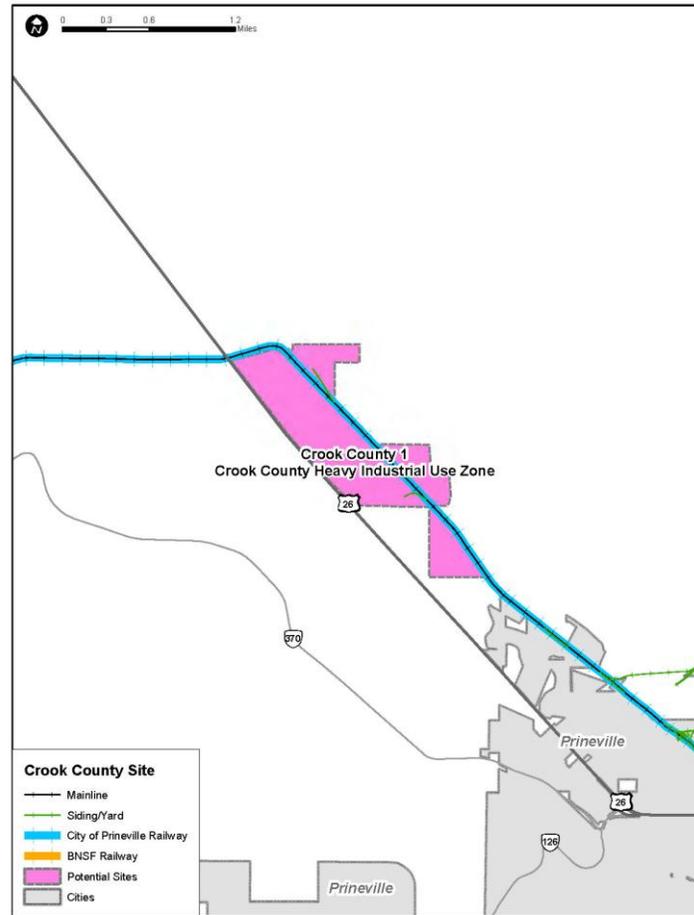
City of Madras



- **Madras Industrial Zone**

- Current Zoning: I (Industrial).
- Current Comprehensive Plan Designation: I (Industrial).
- Physical Description: Approximately 568 acres along US Highway 26, inside the City of Madras city limits and UGB.
- Advantages: There are existing railroad spurs in this area. Inside City of Madras UGB. Zoned I. Comprehensive Plan designation I. Good proximity to US Highway 26.
- Disadvantages: Approximately half of the land area is divided into small parcels.

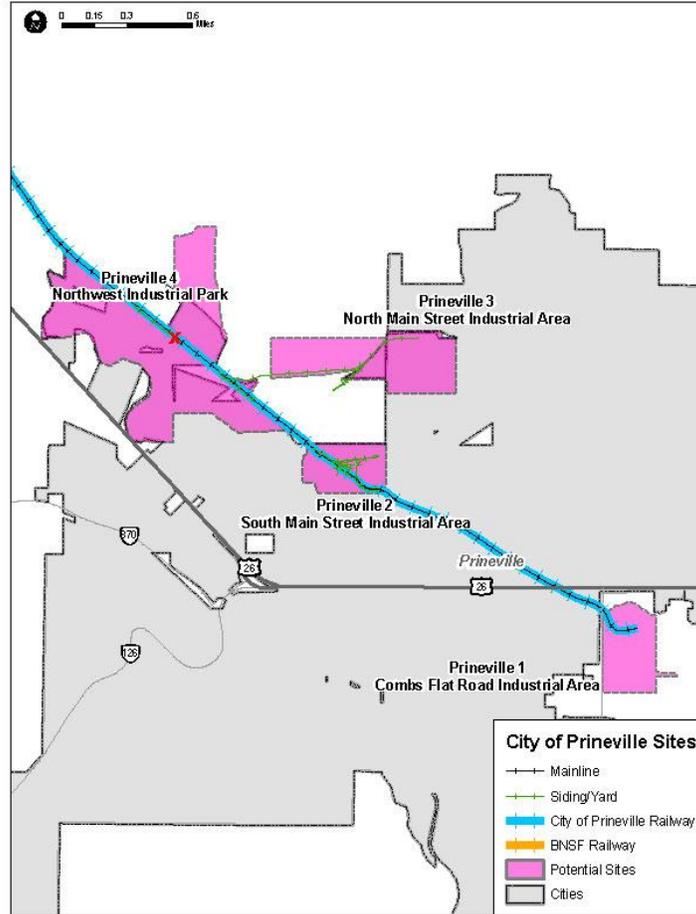
Crook County



- **Crook County Heavy Industrial Use Zone**

- Current Zoning: HM (Heavy Industrial).
- Current Comprehensive Plan Designation: Industrial.
- Physical Description: Approximately 560 acres northeast of US Highway 26 and southwest of the COPR, and 3½ miles northwest of the City of Prineville.
- Advantages: Located on COPR Zoned HM. Good proximity to US Highway 26.
- Disadvantages: Outside the City of Prineville city limits and UGB.

City of Prineville



- **Combs Flat Road Industrial Area**

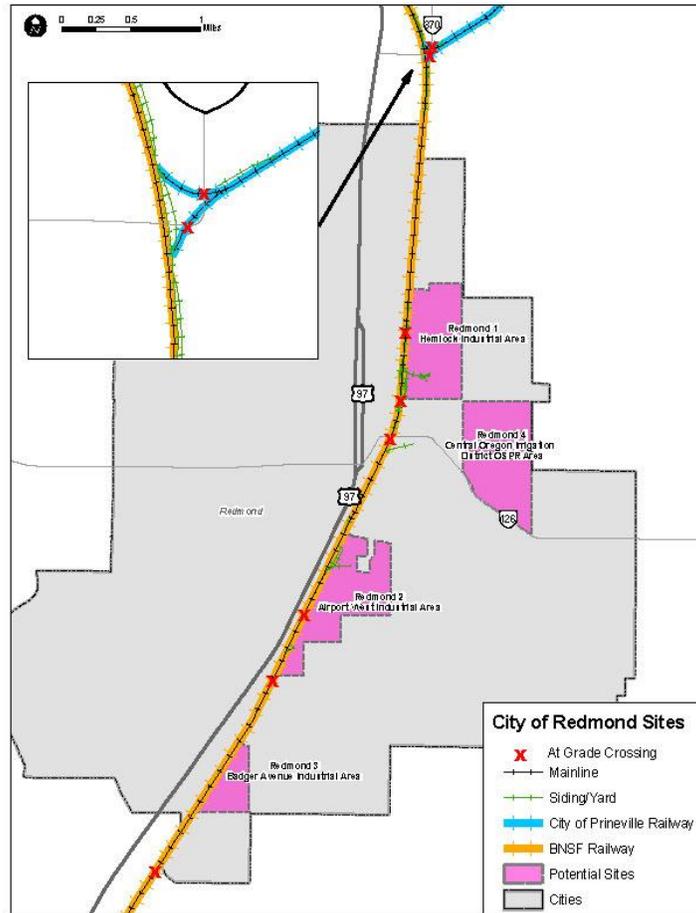
- Current Zoning: M2 (General Industrial).
- Current Comprehensive Plan Designation: Heavy Industrial.
- Physical Description: Approximately 63 acres north of Hylton Lane, south of Ochoco Creek, east of Combs Flat Road, and west of the City of Prineville city limits.
- Advantages: Inside City of Prineville UGB. Zoned M2. Large parcel under single ownership.
- Disadvantages: Has been designated for Commercial development. Railroad tracks are scheduled to be removed.

- **South Main Street Industrial Area**
 - Current Zoning: M1 (Limited Industrial) and M2 (General Industrial).
 - Current Comprehensive Plan Designation: Light Industrial and Heavy Industrial
 - Physical Description: Approximately 53 acres north of 10th Street, south of the City of Prineville city limits, east of Harwood Street and west of Main Street, and mostly divided into small parcels.
 - Advantages: There is an existing railroad spur in this area approximately 1,320 linear feet in length. Inside City of Prineville UGB. Zoned M1 and M2.
 - Disadvantages: Mostly divided into small parcels.

- **North Main Street Industrial Area**
 - Current Zoning: M1 (Limited Industrial) and M2 (General Industrial).
 - Current Comprehensive Plan Designation: Light Industrial and Heavy Industrial.
 - Physical Description: Approximately 117 acres north of Mariposa Avenue, south of Peters Road east of the City of Prineville city limits, and west of Mariposa Avenue, approximately half of which is divided into small parcels.
 - Advantages: There is an existing railroad spur in this area approximately 3,806 linear feet in length. Inside City of Prineville UGB. Zoned M1 and M2.
 - Disadvantages: Not adjacent to the COPR mainline. Approximately half of the land area is divided into small parcels.

- **Northwest Industrial Park**
 - Current Zoning: M1 (Limited Industrial) and M2 (General Industrial).
 - Current Comprehensive Plan Designation: Light Industrial and Heavy Industrial.
 - Physical Description: Approximately 283 acres northeast of US Highway 26 and southwest of the COPR, approximately half of which is divided into small parcels.
 - Advantages: Located on the COPR. Inside City of Prineville UGB. Zoned M1 and M2.
 - Disadvantages: Approximately half of the land area is divided into small parcels.

City of Redmond



- **Hemlock Industrial Area**

- Current Zoning: M1 (Light Industrial) and M2 (Heavy Industrial).
- Current Comprehensive Plan Designation: M1 (Light Industrial) and M2 (Heavy Industrial).
- Physical Description: Approximately 214 acres north of Antler Avenue, south of Larch Avenue, east of the BNSF Railroad, and west of 9th Street.
- Advantages: Inside City of Redmond UGB. Zoned M1 and M2. Comprehensive Plan designation M1 and M2.
- Disadvantages: Mostly divided into small parcels.

- **Airport West Industrial Area**
 - Current Zoning: M1 (Light Industrial).
 - Current Comprehensive Plan Designation: M1 (Light Industrial).
 - Physical Description: Approximately 217 acres north of Wickiup Avenue, south of Quartz Avenue, east of the BNSF Railroad, and west of 6th and 13th Streets.
 - Advantages: Inside City of Redmond UGB. Zoned M1. Comprehensive Plan designation M1.
 - Disadvantages: Mostly divided into small parcels.

- **Badger Avenue Industrial Area**
 - Current Zoning: M1 (Light Industrial).
 - Current Comprehensive Plan Designation: M1 (Light Industrial).
 - Physical Description: Approximately 76 acres southeast of the BNSF Railroad and northwest of Badger Avenue.
 - Advantages: Inside City of Redmond UGB. Zoned M1. Comprehensive Plan designation M1. Good proximity to US Highway 97.
 - Disadvantages: Mostly divided into small parcels.

- **Central Oregon Irrigation District (COID) OSPR Area**
 - Current Zoning: OSPR (Open Space Park Reserve).
 - Current Comprehensive Plan Designation: OSPR (Open Space Park Reserve).
 - Physical Description: Approximately 249 acres north of OR Highway 126, south of Antler Avenue, east of 9th Street, and west of the City of Redmond city limits.
 - Advantages: Large, vacant parcel and under single ownership (Central Oregon Irrigation District). Inside City of Redmond UGB. Good proximity to OR Highway 126. A local development company with an option on 150 of these 249 acres applied for a zone change and Comprehensive Plan Map amendment to Industrial and Service Commercial two years ago, which is currently being reviewed by the City of Redmond.
 - Disadvantages: No existing rail access. Requires a zone change and Comprehensive Plan Map amendment.

B. Site Scoring

The 28 potential rail industrial sites identified as described above were scored using 10 scoring criteria as described below. Sites with desirable characteristics were given positive scores ranging from 1 to 3 in the individual scoring criterion. Sites with undesirable characteristics were given a negative score of -1. Sites with characteristics that were neutral or not applicable were given a neutral score of 0. Scores were then totaled for each site. As shown in the Site Scoring Matrix below, total scores for each site typically ranged from 1 to 9. The Northwest Industrial Park in the City of Prineville and the Crook County Heavy Industrial Zone scored the highest, with a total score of 9. The Combs Flat Road Site in Prineville and the Old Mill District Site in Bend scored the lowest, with a total score of 1.

- Inside UGB** – For this scoring criterion, potential rail industrial sites were given a score of 1 if they are located inside an UGB and a score of 0 if they are located outside a UGB. Being located inside a UGB was viewed as a desirable characteristic because the potential rail industrial sites would comply with one of the purposes of Statewide Planning Goal 14 (Urbanization), which is to accommodate urban employment inside UGBs. Siting urban employment uses outside a UGB would require an exception to Goal 14. All of the sites identified in the Cities of Prineville, Redmond, Bend, La Pine, and Madras lie within the cities’ respective UGBs and were given a score of 1 for this criterion, with one exception. Bend Site #8(The Thumb) is partially inside the Bend UGB, but mostly outside the UGB, and was given a score of 0 for this criterion. That site was listed as a City of Bend site, rather than a Deschutes County site, because it is included in the City of Bend’s proposed UGB expansion, according to the Bend Urban Area Framework Plan Map (December 16, 2008). All of the sites identified in Crook, Deschutes, and Jefferson Counties lie outside of city UGBs and were given a score of 0 for this criterion, with two exceptions. Jefferson County Sites #3 (Metolius Industrial Zone) and #4 (Culver Industrial Zone) lie within the cities’ respective UGBs and were given a score of 1 for this criterion.
- Zoned Industrial** – For this scoring criterion, potential rail industrial sites were given a score of 1 if they are currently zoned Industrial and a score of 0 if they are not currently zoned Industrial. Being zoned Industrial was viewed as a desirable characteristic because sites currently zoned Industrial were assumed to be more “shovel ready” than sites that require a zone change. Of the 28 sites identified, 17 sites are currently zoned Industrial and 10 sites require a zone change to accommodate industrial uses.
- Acreage** – For this scoring criterion, potential rail industrial sites were given a score of 1, 2 or 3, depending on their size. As described above, potential rail industrial sites were initially identified if they were over 40 acres in size. Ideally, sites should contain 100 or more vacant acres. Sites were scored based on vacant land within the site, excluding built-out land. Sites were given a score of 1 if they contained 0 to 50 vacant acres, a score of 2 if they contained 51 to 100 vacant acres, and a score of 3 if they contained 101 or more vacant acres. Of the 28 sites identified, 8 sites have 0 to 50 vacant acres, 4 sites have 51 to 100 vacant acres, and 15 sites have 101 or more vacant acres.
- Rail Access** – Scoring was based on access to either the BNSF or COPR. Given that the BNSF is less likely to serve new industry off of their mainline, the project team weighted the scoring to favor rail access on the COPR with a score of 3 versus a score of 1 for access to the BNSF. The site at Prineville Junction scored a 4 as it was the only site which was adjacent to both railroads. The sites in La Pine were not viewed as having access under the current operating pattern. This could change if a large industrial user were to site at that location.

- Support Tracks – A basic requirement of the Class I railroad is having off site infrastructure to support on site rail development. The rule of thumb today is a ratio of three to one. This allows for delivery of loads and empties simultaneously to any industry. In addition, if the site has no existing rail spur, service to any new industry will require a siding along the Class I mainline with a length of a minimum of 7,800 feet.
- Road Access – For this scoring criterion, potential rail industrial sites were given a score of 1 if they were adjacent to a major highway and had an existing interchange. Sites were given a score of 0 if they were not close to an interchange. Proximity to a major highway (specifically, US Highways 97, 20, and 26) was viewed as a desirable characteristic because those highways are designated as part of the State Highway Freight System in the 1999 Oregon Highway Plan, which means they are constructed and maintained with high standards for safety and mobility. Sites that do not have good access to a major highway were assumed to have higher development costs because the roadway system between the sites and a major highway would need to be constructed or improved.
- Close to Rail-Served Industries – In order to secure long-term efficient and cost-effective railroad service, it is important to have critical mass of freight rail. If the rail-served industries are spread out all over the study area, in the long-term it will result in the continued high pricing resulting in the freight moving to the truck mode. Long term it will be critical to centralize freight rail movements either by physically moving the industry or by trucking the freight to a loading center. Given that rail critical mass will attract more rail service options, it is seen as advantageous to have a site located within an area where there is existing freight rail.
- Development Costs – It was determined at one of the technical advisory committee meetings that it would be important to include an indication of the relative development costs in comparing the sites. The project team does not have access to land development costs, but was able to estimate which sites would have higher development costs based on the amount of rail/road infrastructure needed to support a rail-served industry. In addition, there were some sites which had limited road access or significant issues with road crossings and would eventually require grade separations.
- Neighborhood Issues – In urbanized areas there are often complaints about railroad operations when they occur close to residential areas or areas of special interest by citizens such as wetlands. Noise is typically the biggest complaint and is often an ongoing concern, which will create issues for the railroads as well as the city or county jurisdictions who have limited staff resources to deal with it. It is much better in the long run to avoid this type of conflict up front which is why we scored a negative 1 for sites which already have or could have the potential for neighborhood complaints. Local planning staff was contacted to determine which sites have neighborhood issues.
- At-Grade Crossings – Truck, rail, and passenger vehicle traffic are all affected negatively by at-grade road crossings. They make rail operations more cumbersome by necessitating additional handling of railcars; they create road congestion, and also are less safe than grade-separated crossings. Some at-grade crossings will need to be grade separated for industrial development and this in turn increases the cost of development. What also quickly became evident is that virtually all of the BNSF infrastructure—mainlines, yards, and sidings—were impaired by at-grade crossings. For these reasons, it was important to include this as a scoring criterion.

C. Scoring Matrix

Please see scoring matrix in appendix.

VI. Economic Development Policies

The project team worked with the Cities of Prineville, Redmond, Bend, La Pine, and Madras, and Crook, Deschutes, and Jefferson counties to evaluate land use strategies to protect access to the rail corridors for rail-dependent industries. The project team reviewed the economic development policies (Comprehensive Plan policies) for the cities and counties and as appropriate, suggested new policies for these entities to support development along the rail corridors. The existing economic development Comprehensive Plan policies that apply to industrial uses are listed below by jurisdiction. New economic development policies recommended for inclusion in the Comprehensive Plan for each jurisdiction are listed at the end of this section.

Most of the cities and counties have fairly general policy language on ensuring that they have a sufficient inventory of industrial land. Only the City of Bend and Jefferson County address the transportation characteristics of the sites and only Jefferson County specifically addresses rail. The City of Prineville and the City of Bend are the only jurisdictions whose economic development policies preserve large-lot industrial sites. In addition, only the three counties (not the five cities) address environmental considerations when siting industrial uses.

The City of Prineville's economic development policies contain some of the more general policy language of the jurisdictions whose policies were reviewed. In general, the purpose of the policies is to provide adequate buildable industrial and commercial land for at least 20 years. However, Prineville is the only jurisdiction whose policies require preservation of large industrial parcels over 20 acres in size to attract target industries and new manufacturing businesses. That makes Prineville a good candidate for locating large-lot rail/truck served industries.

The City of Redmond's economic development policies also contain some of the more general policy language of the jurisdictions whose policies were reviewed. The City of Redmond's policies simply state that sufficient vacant industrial lands with a diversity of sizes, types, and service levels for future industrial development shall be designated on the comprehensive plan/zoning map.

The City of Bend's economic development policies contain the most specific policy language of the jurisdictions whose policies were reviewed. The policies state that at least 500 acres of the City-owned property known as Juniper Ridge shall be brought into the Urban Growth Boundary, annexed to the city, and designated on the Bend Urban Area General Plan Map as Industrial Light and at least 30 percent of the total net buildable area shall be allocated for sites of 10 acres and larger in size. The City of Bend is the only jurisdiction whose policies require assessment of transportation facility improvements that may be needed to support industrial development.

The City of La Pine does not have an adopted Comprehensive Plan.

The City of Madras has only one economic development policy relating to industrial lands, which is to identify the types of industries which could be suitably located in the Madras area and promote the advantage of the Madras industrial site to those types of industries.

Crook County's economic development policies contain some of the more general policy language of the jurisdictions whose policies were reviewed. In general, the purpose of the policies is to diversify, stabilize and improve the economy of the county. Crook County's economic development policies also address an economic-environmental balance in all resource management and allocation decisions.

Deschutes County’s economic development policies contain some of the more specific policy language of the jurisdictions whose policies were reviewed. In general, the purpose of the policies is to set aside adequate lands for commercial and industrial requirements. Specifically, Deschutes County recognizes that the City of Redmond may need additional land for future industrial use. Thus, the 909 acres within county jurisdiction immediately to the south of the Redmond Airport, located outside of the Urban Growth Boundary, shall be considered for future industrial use. The County will take the necessary steps to preserve this area and preclude development which would be incompatible with industrial development. In addition, Deschutes County’s economic development policies also state that the county shall seek and encourage only non-polluting (most likely light industry) manufacturers which are compatible with existing air and water quality.

Jefferson County’s economic development policies contain some of the more specific policy language of the jurisdictions whose policies were reviewed. In general, the purpose of the policies is to provide adequate land in appropriate areas for industrial development. Jefferson County is the only jurisdiction whose economic development policies mention rail transportation. Specifically, one policy states that industrial uses may be appropriate in unincorporated areas of the county when necessary to be near a resource utilized by the industry, when a location adjacent to rail lines is important for shipping needs, or when warranted because of space needs or probable impacts from the use. In addition, Jefferson County’s economic development policies also state that when considering whether an industrial use should be permitted, the potential environmental impacts on the local area should be taken into account, especially near city limits.

The actual comp plan language is attached in the appendix

A. New Economic Development Policies Recommended for Inclusion in the Comprehensive Plan for Each Jurisdiction

Currently, there is no language in any of the existing comprehensive plans which recognizes and protects the sites which lend themselves to rail-served industrial development. As the project team has identified, there are sites which have the road and rail access as well as site size and development attributes which may be best suited for this type of use.

Here is an example of language which may be incorporated into comprehensive plans:

1. The City of (_____) {or _____ County} shall protect and preserve lands zoned for industrial use that are identified as having exceptional transportation and site characteristics which are compatible with rail operations adjacent to the BNSF Railroad and/or COPR for rail-dependent industrial uses.

B. Statewide Planning Goal 9 and Goal 14

The project team addressed whether the intent of Oregon’s Statewide Planning Goal 9 (Economic Development) and Goal 14 (Urbanization) are met for each potential rail industrial site, as described below. Compatibility with the goals was a criterion for whether or not a site is suitable for rail-served development.

Oregon’s Statewide Planning Goal 9 (Economic Development): To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon’s citizens.

For this study, the potential rail industrial sites identified as described above were deemed to meet the intent of Goal 9 if they are currently zoned Industrial. A summary of whether the intent of Goal 9 is met (and why or why not) is shown below for the 28 potential rail industrial sites identified, listed by jurisdiction.

Oregon’s Statewide Planning Goal 14 (Urbanization): To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside UGBs, to ensure efficient use of land, and to provide for livable communities.

For this study, the potential rail industrial sites identified as described above were deemed to meet the intent of Goal 14 if they are currently inside an UGB. A summary of whether the intent of Goal 14 is met (and why or why not) is shown below for the 28 potential rail industrial sites identified, listed by jurisdiction.

Site	Inside UGB Meets Goal 14	Zoned Industrial Meets Goal 9
City of Prineville Sites		
1. Combs Flat Road Industrial Site	✓	✓
2. South Main St. Industrial Area	✓	✓
3. North Main St. Industrial Area	✓	✓
4. Northwest Industrial Park	✓	✓
Crook County Sites		
1. Crook County Heavy Industrial Zone		✓
City of Redmond Sites		
1. Hemlock Industrial Area	✓	✓
2. Airport West Industrial Area	✓	✓
3. Badger Avenue Industrial Area	✓	✓
4. COID OSPR Area	✓	
City of Bend Sites		
1. Juniper Ridge Phase 1	✓	
2. Nels Anderson Industrial Area	✓	✓
3. Boyd Acres Industrial Area	✓	✓
4. NE 1 st Street Industrial Area	✓	✓

Site	Inside UGB Meets Goal 14	Zoned Industrial Meets Goal 9
5. Old Mill District	✓	✓
6. Centennial Industrial Area	✓	✓
7. SE Bend Residential Area	✓	✓
8. The Thumb		
City of La Pine Sites		
1. La Pine Forest Use Zone	✓	
2. La Pine Industrial District	✓	✓
Deschutes County Sites		
1. Prineville Junction		
2. DSL South Redmond Tract		
3. Juniper Ridge Phase 2		
City of Madras Sites		
1. Madras Industrial Zone	✓	✓
Jefferson County Sites		
1. North Madras EFU Zone		
2. West Madras EFU Zone		
3. Metolius Industrial Zone	✓	✓
4. Culver Industrial Zone	✓	✓
5. Belmont Lane		✓

VII. Freight Terminals

A. Carload/Manifest

Historically, the rail business in Oregon has been dominated by movement of forest products and agricultural products. In the past, trains would stop along the mainline and pick up and drop off cars at the rail spurs which connected to various shippers. In the end, a train might have boxcars filled with paper products, A Frames loaded with lumber, gondola cars with scrap metal, and tanker cars with fertilizers as well as hopper cars filled with grain. The train would move at a relatively slow pace with many stops to serve these industries--this is known as a manifest train configuration. The Class I railroads have also provided team tracks in the past. This was a location accessible by truck where the cargo could be loaded on to a railcar. The railroad would drop off cars at this location and later pick up the loaded cars. The railroads have steadily been decommissioning their team track locations as the manifest operating model has become antiquated. The “hook & haul” unit train operating model is predominantly used today by the Class I railroads. Many commodities have been priced to incent the shipper to conform to the unit train model; grain is the leading example of this. Most large-scale grain shippers now move product by unit train. This configuration has a pricing structure which will save shippers 25 percent of freight costs over non-unit train movements. In other words, if you do not move your product by unit train, you will not be competitive in the market place.

The challenge for many areas in Oregon is that large volumes of rail cargo are still comprised of traditional manifest cargos. In addition, the Class I railroads will jealously guard the business which they perceive to be theirs by right of governing agreements which are up to 130 years old. This so-called franchise business is protected by not allowing the competing carrier access to the shipper. This dueling for competitive access provides an incentive for the Class I to keep a shipper at a location which only has access to the serving carrier. The net result is that manifest cargo such as forest products are the last products which still move on manifest trains and are served by switching to often distant rail spurs.

1. Business Case and Pricing

As we have discussed at length, this model is quickly becoming one which the carriers will not support. There have already been some signs along the Oregon Trunk that the railroads are divesting themselves of carload business. They do this by pricing the commodities so they are no longer competitive with trucking rates. During the most recent economic boom, the railroads were extremely concerned about mainline capacity which accelerated their efforts to minimize the number of slower manifest trains on the network. Since the dramatic downturn of the economy, the railroads have returned to aggressively marketing all commodities regardless of their service profile. Therefore, this is a good time to be seeking industries to locate in central Oregon which are carload shippers. However, in order for the rail service to be sustainable in the long term; i.e., when volumes increase and mainline capacity becomes the overriding concern again, then the manifest trains must take on the attributes of unit trains. This is where the concept of freight terminals becomes relevant.

The Freight Depot operated by the COPR is a prime example of a freight terminal. It is a public terminal which provides rail access to all regional shippers who can truck products to or from this location. It serves as an aggregating point where loads can be consolidated and built into a block of railcars. This block is then interchanged with the Class I carrier at a Prineville Junction. Having one pick-up and drop-off location in Central Oregon, rather than several, will ensure that

the mainline velocity and capacity are not compromised over the long term. The Freight Depot can also provide the railroad with a cost savings as the crew, which currently switches all of the cars, can be redeployed to other locations since no mainline switching would be needed. The COPR would essentially provide the services which the BNSF crews currently perform albeit in a different operating configuration.

2. **Terminal**

For volumes in the region today, there is no need for additional freight hubbing terminals. As volumes increase, however, there may be additional need at a different industrial location. Such a site must have the following attributes:

- Proximity to highway freight corridors
- Efficient connectivity to Class I rail network
 - On a connecting shortline carrier; or
 - At an industrial site with a large enough base of shippers to have an industrial switcher interchange blocks of cars directly with the Class I at a strategic location
- Adequate industrial land for future build-out
- On and/or offsite support rail infrastructure sufficient to hold additional empty and loaded railcars
- Critical mass of railcars
- Sufficient storage capacity, preferably with some covered storage

The Freight Depot on the COPR has the above characteristics. Given the current economy and the volumes of rail business in the region, there does not appear to be an immediate need for additional facilities of this kind. In the future, however, such a site could be located on the BNSF provided there will be enough volume to interchange a block of cars rather than a small number of individual cars.

B. Intermodal

A new intermodal rail service offering should be built upon a solid foundation. An overall service plan should include both international and domestic freight needs for Central Oregon shippers. The service should focus on new freight rail service operating parameters and their connections to the marketplace. To do this, market-based logistical concepts that meet the need of Central Oregon freight shippers as well as the transportation service providers must be created. We need to engage and encourage strategic partners that are capable of participating in facilities, infrastructure, and equipment needs using both public and private partnerships as well as other funding and financing mechanisms. This is not simply an infrastructure or facilities program, rather it involves the creation of both the hardware and software – the operations and the facilities – needed to establish new freight rail and surface transportation services in Central Oregon that companies can use competitively to deliver their products to customers throughout the U.S. and abroad.

Intermodal trains are generally high priority trains on the railroad network. The trains carry higher value freight, generally manufactured goods, which are more time sensitive. The users of intermodal services are national retail companies, the US Postal Service, UPS, Federal Express and large national trucking companies to name a few. Intermodal trains typically move on the high capacity corridors which serve population centers such as Los Angeles to Chicago, or serve high volume ports which handle imported products moving to population centers such as Seattle/Tacoma to Chicago.

The marketplace in Central Oregon is challenging. The area has a small population base, single line railroad service, relatively small manufacturing and consuming base and is fairly distant in terms of service miles for highway trucks to reach a transportation hub. Winter weather and mountain passes can adversely affect freight services. Because of these dynamics, designing new intermodal service options will be challenging to achieve. Since there is no single business entity capable of providing a critical mass of container cargo, regional businesses and transportation service providers will need to work together and combine their intermodal cargo needs into a single designated facility that offers:

- Good connectivity to the roadway and highway network
- Rail service
- Property with land for expansion
- Critical mass of cargoes

Agreement by the Central Oregon shipping public to use a single designated intermodal complex will also require minimum guaranteed volumes before the railroad service providers will entertain discussions about any dependable train service. Initially, the railroads will require at least one train load (about 240 containers) per week of guaranteed volume before serious discussion about dedicating any railroad assets would be considered. This would include railcar equipment, scheduling priority, locomotives or crews. Also, the railroad would want to receive that cargo in a unit train configuration to a destination where there would be sufficient cargo to load the cars for haulage to another destination. The railroads seek balanced flows for their intermodal business line. The longer the origin/destination hauls the better. It might be difficult to get agreement from the railroads to operate such a train between Central Oregon and Portland as this would be considered a short haul which both Class I railroads have not accepted in the past. However, if the cargo is to be routed to/from Chicago or almost any other long-haul origin/destination pairs, chances are better this business model would work.

The Class I railroads do not want and probably will not support for the long term an intermodal product requiring them to switch out intermodal facilities or stop trains in route to pick-up or set-out small volumes of intermodal cargo. It would be best if any new intermodal product within the Central Oregon region be located at a private or public facility on a shortline railroad. Then the shortline railroad could collect the cargo volumes necessary, switch out the railcars, and ready the intermodal cut of cars or train for interchange to the railroad.

We must acknowledge that today following the extreme financial and economic downturn that has occurred since November 2008, the railroads may be more aggressive in their marketing efforts than they were in the past. They are probably willing to accommodate lower cargo volumes and absorb more switching work as long as their networks are slow and have excess capacity. However, we must stress that when volumes pick-up and capacity begins to again fill, the accommodations that were made will revert back to a “hook-and-haul” mentality. Therefore it’s better to memorialize a business case today that will work now and into the future utilizing investments in property, infrastructure, and operations that will not strand public and private investments in the future.

1. Business Model and Pricing

The railroads will generally price their service products lower than the trucking community for their targeted markets. However, most of their pricing is based on the length of the haul. The longer the haul the lower the pricing compared to trucking quotes. Generally, rail rates are about one-half to as much as one-third the trucking rate in many markets targeted by the railroads. Basically, the railroads do not quote “short haul” rates that are truck competitive for less than 500 miles. The exception to this has been for long-term contracts for unit train movements from one private facility to another. Today, municipal solid waste falls into that category. Seattle and Tacoma both contract with the BNSF and UP to operate trains to Roosevelt and Arlington under multi-year contracts moving two or three trains per week. The solid waste leaves the Puget Sound area loaded and operates either to Roosevelt, WA, on the BNSF or to Arlington, OR, on the UP for unloading and returns empty to the Puget Sound facilities. This happens over and over again, week after week. The railroads are guaranteed payment even if the trains do not operate.

2. Terminal

The ideal terminal model for a facility in Central Oregon would be one that is capable of generating the volumes and could meet the requirements for unit train activity on the COPR. This would allow the greatest degree of flexibility for shippers and in the long-term meet the needs of the Central Oregon shipping public. The terminal model would include an operating facility located off of the COPR at the nexus of roads and highways with access to expandable and developable property for facility growth. To start, BNSF would probably require one train per week with expectations for guaranteed growth. Each unit train would require at least 200 containers on a weekly basis. That would amount to 11,000 lifts per year. The terminal complex will need:

- Ideally, the ability to eventually construct a wye track entry into the terminal complex off of the COPR main line
- Gatehouse (check-in area) with enough driveway queuing to clear the street or highway
- Parking and staging area for trailers/containers (10 per stack railcar)

- Container storage (for stacking three high)
- Track and trackside area for reach stacker access
- Off-site arrival and departure trackage (if we're dealing with full trains)
- Off-site railcar storage and switching capacity trackage
- Maintenance and repair area
- Chassis pick-up and drop-off areas
- Chassis storage area

Cost for this type of development would be \$20-25 million. This number assumes full build out. It is possible to phase the development over several years.

In addition, the COPR will require an efficient and unit train compatible interchange point with the Class I railroads. This may require adding track infrastructure near or along the current BNSF right of way at the junction point where the COPR tracks meet the BNSF at Prineville Junction.

VIII. Conclusions and Recommendations

The analysis of rail operations and industrial sites has led the project team to draw the following conclusions:

- The Oregon Trunk mainline is primarily a route for north/south through traffic for BNSF and occasionally for UP
- The Class I railroads will not support new industrial development along their mainline if they view it as impacting mainline capacity
- Unit train facilities with adequate support infrastructure are compatible with the Class I operating model
- There has already been some de-marketing by the railroads due to the inefficiencies of serving customers on the Oregon Trunk line and the low volumes
- With the exception of Lava Siding, all rail support infrastructure in the region is compromised by existing at-grade crossings
- Recent rail freight volumes are not sufficient to ensure long-term competitive and efficient rail service in the region from the Class I railroads
- The COPR rail service and Freight Depot are concepts which the Class I railroads will support
- There is no market need for an additional transload/reload hub facility in the region at this time
- There are several sites which are well suited for rail-served industrial development and are shown in the site scoring matrix

Recommendations:

- Market uncertainties at this time make it difficult to identify which types of industrial users are the best targets for economic development efforts and the old commodity flow data is not particularly useful. When the data is updated as a part of the ODOT freight planning effort, it could identify if there are any new commodities which are moving and will also show volume levels and corridors that they are moving to and from. This will be useful information in targeting industries for rail-served sites. Carload business such as construction materials, metal products and wood and paper products will be easiest to market from the railroad standpoint. In addition, consulting team believes that the wind energy industry and other alternative energy companies will continue to evolve as major rail users in the coming years and are worth investigating.
- Sites served by a shortline railroad with access to both the BNSF and the UP are exceedingly rare and desirable from a competitive standpoint. This should be highlighted in all relevant materials.
- La Pine does not have commercial access to UP and there is currently no switching service available from Bend to La Pine. The sites are large and desirable from a development standpoint, and there is an existing siding at La Pine. For rail-served development, the project team suggests marketing to a large rail user in order to be able to get service from the BNSF. It would be very difficult to secure service for a rail user with occasional shipments of small numbers of railcars.

- Since there is no language in any of the planning documents which identify and protect sites which have excellent transportation connectivity, the jurisdictions may want to consider adding this to the Comprehensive Plans including Transportation System plans as appropriate.
- Identify support infrastructure which will be needed to support the sites and begin incorporating this infrastructure into regional transportation plans.
- Begin the process for securing public funding both for the rail infrastructure and the at-grade crossings which most impede rail operations.

IX. Appendix

Deschutes County Zoning Permitted Uses

EFUAL – Permitted Outright: farm use; propagation or harvesting of a forest product; operations for the exploration for minerals; accessory buildings customarily provided in conjunction with farm use; climbing and passing lanes within a right-of-way existing as of July 1, 1987; reconstruction or modification of public roads and highways, including the placement of utility facilities overhead and in the subsurface of public roads and highways along the public right-of-way, but not including the addition of travel lanes, where no removal or displacement of buildings would occur or no new land parcels result; temporary public road or highway detours that will be abandoned and restored to original condition or use when no longer needed; minor betterment of existing public roads and highway-related facilities such as maintenance yards, weigh stations and rest areas, within a right of way existing as of July 1, 1987, and contiguous publicly-owned property utilized to support the operation and maintenance of public roads and highways; creation, restoration or enhancement of wetlands; alteration, restoration or replacement of a lawfully established dwelling; a replacement dwelling to be used in conjunction with farm use if the existing dwelling is listed on the National Register of Historic Places and on the County inventory as a historic property; wildlife habitat conservation and management plan; operation, maintenance, and piping of existing irrigation systems operated by an Irrigation District; utility facility service lines; the land application of reclaimed water, agricultural process, or industrial process water or biosolids for agricultural, horticultural, or silvicultural production, or for irrigation in connection with a use allowed in an exclusive farm use zone, subject to the issuance of a license, permit, or other approval by the Oregon DEQ; fire service facilities providing rural fire protection services; operations for the exploration for and production of geothermal resources and oil and gas, including the placement and operation of compressors, separators, and other customary production equipment for an individual well adjacent to the wellhead; a site for the disposal of solid waste that has been ordered to be established by the Environmental Quality Commission, together with the equipment, facilities, or buildings necessary for its operation on non-high value farmland only; and the breeding, kenneling, and training of greyhounds for racing.

EFUAL – Uses Permitted Subject to the Special Provisions: dwellings customarily provided in conjunction with farm use (farm-related dwellings); a relative farm help dwelling; churches and cemeteries in conjunction with churches that are not within 3 miles of an acknowledged UGB, on non-high value farmland; churches and cemeteries in conjunction with churches that are within 3 miles of an acknowledged UGB, subject to the approval of an exception, on non-high value farmland; expansion of an existing church or cemetery in conjunction with a church on the same tract as the existing use; public or private schools, including all buildings essential to the operation of the school that are not within 3 miles of an acknowledged UGB on non-high value farmland; public or private schools, including all buildings essential to the operation of the school that are within 3 miles of an acknowledged UGB, subject to the approval of an exception, on non-high value farmland; expansion of an existing public or private school on the same tract as the existing use, including all buildings essential to the operation of such a school; utility facilities necessary for public service, including wetland waste treatment systems, but not including commercial facilities for the purpose of generating electrical power for public use by sale and transmission towers over 200 feet in height; winery; farm stands; a site for the takeoff and landing of model aircraft, including such buildings or facilities as may be reasonably necessary; and a facility for the processing of farm crops.

EFUAL – Conditionally Permitted: dwellings customarily provided in conjunction with farm use (farm-related dwellings); a relative farm help dwelling; churches and cemeteries in conjunction with churches that are not within 3 miles of an acknowledged UGB, on non-high value farmland; churches and cemeteries in conjunction with churches that are within 3 miles of an acknowledged UGB, subject to the approval of an exception, on non-high value farmland; expansion of an existing church or cemetery in conjunction with a church on the same tract as the existing use; public or private schools, including all buildings essential to the operation of the school that are not within 3 miles of an acknowledged UGB on non-high value farmland; public or private schools, including all buildings essential to the operation of the school that are within 3 miles of an acknowledged UGB, subject to the approval of an exception, on non-high value farmland; expansion of an existing public or private school on the same tract as the existing use, including all buildings essential to the operation of such a school; utility facilities necessary for public service, including wetland waste treatment systems, but not including commercial facilities for the purpose of generating electrical power for public use by sale and transmission towers over 200 feet in height; winery; farm stands; a site for the takeoff and landing of model aircraft, including such buildings or facilities as may be reasonably necessary; and a facility for the processing of farm crops.

EFUTE – Permitted Outright: farm use; propagation or harvesting of a forest product; operations for the exploration for minerals; accessory buildings customarily provided in conjunction with farm use; climbing and passing lanes within a right of way existing as of July 1, 1987; reconstruction or modification of public roads and highways, including the placement of utility facilities overhead and in the subsurface of public roads and highways along the public right of way, but not including the addition of travel lanes, where no removal or displacement of buildings would occur or no new land parcels result; temporary public road or highway detours that will be abandoned and restored to original condition or use when no longer needed; minor betterment of existing public roads and highway-related facilities such as maintenance yards, weigh stations and rest areas, within a right of way existing as of July 1, 1987, and contiguous publicly-owned property utilized to support the operation and maintenance of public roads and highways; creation, restoration or enhancement of wetlands; alteration, restoration, or replacement of a lawfully established dwelling; a replacement dwelling to be used in conjunction with farm use if the existing dwelling is listed on the National Register of Historic Places and on the County inventory as a historic property; wildlife habitat conservation and management plan; operation, maintenance, and piping of existing irrigation systems operated by an Irrigation District; utility facility service lines; the land application of reclaimed water, agricultural process, or industrial process water or biosolids for agricultural, horticultural or silvicultural production, or for irrigation in connection with a use allowed in an exclusive farm-use zone, subject to the issuance of a license, permit or other approval by the Oregon DEQ; fire service facilities providing rural fire protection services; operations for the exploration for and production of geothermal resources and oil and gas, including the placement and operation of compressors, separators and other customary production equipment for an individual well adjacent to the wellhead; a site for the disposal of solid waste that has been ordered to be established by the Environmental Quality Commission, together with the equipment, facilities, or buildings necessary for its operation on non-high value farmland only; and the breeding, kenneling, and training of greyhounds for racing.

EFUTE – Uses Permitted Subject to the Special Provisions: dwellings customarily provided in conjunction with farm use (farm-related dwellings); a relative farm help dwelling; churches and cemeteries in conjunction with churches that are not within 3 miles of an acknowledged UGB, on non-high value farmland; churches and cemeteries in conjunction with churches that are within 3 miles of an acknowledged UGB, subject to the approval of an exception, on non-high value farmland; expansion of an existing church or cemetery in conjunction with a church on the same tract as the existing use; public

or private schools, including all buildings essential to the operation of the school that are not within 3 miles of an acknowledged UGB on non-high value farmland; public or private schools, including all buildings essential to the operation of the school that are within 3 miles of an acknowledged UGB, subject to the approval of an exception, on non-high value farmland; expansion of an existing public or private school on the same tract as the existing use, including all buildings essential to the operation of such a school; utility facilities necessary for public service, including wetland waste treatment systems, but not including commercial facilities for the purpose of generating electrical power for public use by sale and transmission towers over 200 feet in height; winery; farm stands; a site for the takeoff and landing of model aircraft, including such buildings or facilities as may be reasonably necessary; and a facility for the processing of farm crops.

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MUA10 – Permitted Outright: agricultural uses; a single-family dwelling, or a manufactured home; propagation or harvesting of a forest product; Class I and II road or street project subject to approval as part of a land partition, subdivision; Class III road or street project; noncommercial horse stables, excluding horse events; horse events, including associated structures; operation, maintenance, and piping of existing irrigation systems operated by an Irrigation District; and Type 1 Home Occupation.

MUA10 – Conditionally Permitted: public use; semipublic use; commercial activities in conjunction with farm use; dude ranch; kennel and/or veterinary clinic; guest house; manufactured home as a secondary accessory farm dwelling; exploration for minerals; private parks, playgrounds, hunting and fishing preserves, campgrounds, motorcycle tracks, and other recreational uses; personal-use landing strip for airplanes and helicopter pads, including associated hangar, maintenance, and service facilities; golf courses; Type 2 or Type 3 Home Occupation; a facility for primary processing of forest products, provided that such facility is found to not seriously interfere with accepted farming practices and is compatible with farm uses; destination resorts; planned developments; cluster developments; landfills when a written tentative approval by the Department of Environmental Quality (DEQ) of the site is submitted with the conditional use application; time-share unit or the creation thereof; hydroelectric facility; storage, crushing, and processing of minerals, including the processing of aggregate into asphaltic concrete or Portland cement concrete, when such uses are in conjunction with the maintenance or construction of public roads or highways; bed and breakfast inn; excavation, grading, and fill and removal within the bed and banks of a stream or river or in a wetland; churches; private or public schools, including all buildings essential to the operation of such a school; utility facility necessary to serve the area; cemetery, mausoleum, or crematorium; commercial horse stables; horse events,

including associated structures, not allowed as a permitted use in this zone; manufactured home park on a parcel in use as a manufactured home park prior to the adoption of PL-15 in 1979 and being operated as of June 12, 1996, as a manufactured home park, including any expansion of such uses on the same parcel, as configured on June 12, 1996; wireless telecommunications facilities; guest lodge; and surface mining of mineral and aggregate resources in conjunction with the operation and maintenance of irrigation systems operated by an Irrigation District, including the excavation and mining for facilities, ponds, reservoirs, and the off-site use, storage, and sale of excavated material.

City of Bend Zoning Permitted Uses

CG – Permitted Outright: existing residential uses; new residential uses; retail sales and service; restaurants/food services; offices and clinics; production businesses; convention centers/meeting rooms; lodging; hospitals; commercial and public parking; commercial storage; entertainment and recreation; mortuary; wholesale sales; veterinary clinic (small animal); mixed-use (residential with commercial/civic/industrial); government – point of service; parks and open space; schools; manufacturing and production less than 5,000 square feet with retail outlet; warehouse; transportation, freight, and distribution; industrial service; manufactured home sales; and lumber/building supplies.

CG – Conditionally Permitted: time-share units; trailer park/campground; government – limited point of service; clubs and places of worship; and hydroelectric facilities.

IG – Permitted Outright: light manufacturing, fabrication, and repair with incidental sales associated with a permitted use; heavy manufacturing, assembly, and processing of raw materials and recycling; junk yards, automobile wrecking yards, and similar uses; wholesale warehousing, storage and distribution; fuel distribution; wholesale processing uses; food and beverage processing and packaging; one caretaker unit for each development; equipment rental and repair services; contractor storage; heavy equipment sales; ambulance service/transportation yards; government facilities where the public is generally not received; utility facilities; and special district facilities.

IG – Conditionally Permitted: research and development facilities; production businesses; vehicle, equipment, and boat repair, rental, storage, service; medical and dental laboratories and large animal veterinary clinics; outdoor commercial uses; small-scale personal and professional services; corporate headquarter/office when co-located with a permitted or conditional use; commercial parking lot; recreation facility; vocational schools; and public park and recreation facility.

IL – Permitted Outright: light manufacturing, fabrication and repair with incidental sales associated with a permitted use; research and development facilities; wholesale warehousing, storage, and distribution; production businesses; wholesale processing uses; food and beverage processing and packaging; one caretaker unit for each development; vehicle, equipment and boat repair, rental, storage, service; medical and dental laboratories and large animal veterinary clinics; equipment rental and repair services; corporate headquarter/office when co-located with a permitted or conditional use; contractor storage; heavy equipment sales; commercial parking lot; government facilities where the public is generally not received; utility facilities; and special district facilities.

IL – Conditionally Permitted: heavy manufacturing, assembly, and processing of raw materials and recycling; fuel distribution; outdoor commercial uses; small-scale personal and professional services; mini-storage warehouse; ambulance service; transportation yards; recreation facility; vocational schools; and public park and recreation facility.

RR-10 – Permitted Outright: a single-family dwelling, or a manufactured home; utility facilities necessary to serve the area including energy facilities, water supply, and treatment and sewage disposal and treatment; community center; agricultural use; Class I and II road or street; Class III road or street project; noncommercial horse stables; horse events, including associated structures; operation, maintenance, and piping of existing irrigation systems operated by an Irrigation District; and Type 1 Home Occupation.

RR-10 – Conditionally Permitted: public park, playground, recreation facility, or community center owned and operated by a government agency or nonprofit community organization; dude ranch; Type 2 or Type 3 Home Occupation; personal use landing strip for airplanes and helicopter pads, including associated hangar, maintenance and service facilities; planned development; cluster development; recreation-oriented facility requiring large acreage such as off-road vehicle track or race track, but not including a rodeo grounds; landfill; cemetery; time-share unit or the creation thereof; hydroelectric facility; bed and breakfast inn; golf course; excavation, grading, and fill and removal within the bed and banks of a stream or river or in a wetland; church; public uses; semipublic uses; commercial horse stables; private or public school, including all buildings essential to the operation of such a school; manufactured home park; wireless telecommunications facilities; and surface mining of mineral and aggregate resources in conjunction with the operation and maintenance of irrigation systems operated by an Irrigation District, including the excavation and mining for facilities, ponds, reservoirs, and the off-site use, storage, and sale of excavated material.

RS – Permitted Outright: single-family detached housing; accessory dwellings; manufactured homes on individual lots; adult foster homes; adult day care; family childcare home; Type I Home Occupation; accessory uses and structures; neighborhood parks; child care facility; existing plant nursery; and vacation home rental.

RS – Conditionally Permitted: single-family courtyard housing; accessory dwellings; manufactured home park; attached single-family townhomes; two- and three-family housing (duplex and triplex); Type II Home Occupation; temporary housing; churches and places of worship; clubs, lodges, similar uses; government offices and facilities; libraries, museums, community centers, and similar uses; utilities and radio/television transmission; community parks; regional parks; recreational facilities; schools; cemetery/mausoleum; child care facility; hospital; food services less than 2,000 square feet, excluding automobile dependent and automobile-oriented, drive-in, and drive-through uses; laundromats and dry cleaners; retail goods and services; repair services, conducted entirely within building, excluding vehicle repair, small engine repair, and similar services; mixed-use buildings; diagnostic testing, counseling, administrative offices, meeting facilities for non-profit and public community service programs for children and families; bed & breakfast inns and vacation rentals; new plant nursery; and time-share unit.

UAR – Permitted Outright: single-family detached housing; accessory dwellings; manufactured homes on individual lots; adult foster homes; adult day care; family childcare home; Type I Home Occupation; accessory uses and structures; neighborhood parks; existing plant nursery; vacation home rental; and farm use, agriculture.

UAR – Conditionally Permitted: single-family courtyard housing; Type II Home Occupation; churches and places of worship; clubs, lodges, similar uses; government offices and facilities; libraries, museums, community centers, and similar uses; utilities and radio/television transmission; community parks; regional parks; recreational facilities; schools; cemetery/mausoleum; child care facility; hospital; bed & breakfast inns and vacation rentals; new plant nursery; destination resorts; boarding kennel; and large animal veterinary services.

City of La Pine Zoning Permitted Uses

F1 – Permitted Outright: forest operations or forest practices including, but not limited to, reforestation of forest land, road construction and maintenance, harvesting of a forest tree species, application of chemicals and disposal of slash; temporary on-site structures, which are auxiliary to and used during the term of a particular forest operation; physical alterations to commercial forest land auxiliary to forest practices including, but not limited to, those made for purposes of exploration, mining, commercial gravel extraction and processing, landfills, dams, reservoirs, road construction or recreational facilities; uses to conserve soil, air, and water quality and to provide for wildlife and fisheries resources; farm use; local distribution lines (e.g., electric, telephone, natural gas, etc.) and accessory equipment (e.g., electric distribution transformers, poles, meter cabinets, terminal boxes, pedestals), or equipment which provides service hookups, including water service hookups; temporary portable facility for the primary processing of forest products; exploration for mineral and aggregate resources; towers and fire stations for forest fire protection; widening of roads within existing rights-of-way in conformance with the transportation element of the comprehensive plan including public road and highway projects; water intake facilities, canals, and distribution lines for farm irrigation and ponds; uninhabitable structures accessory to fish and wildlife enhancement; alteration, restoration or replacement of a lawfully established dwelling; and an outdoor mass gathering or other gathering of fewer than 3,000 persons that is not anticipated to continue for more than 120 hours in any three-month period is not a "land use decision".

F1 – Conditionally Permitted: private hunting and fishing operations without any lodging accommodations; caretaker residences for public parks and fish hatcheries; temporary forest labor camps limited to the duration of the forest operation requiring its use; exploration for and production of geo-thermal, gas, oil, and other associated hydrocarbons, including the placement and operation of compressors, separators, and other customary production equipment for an individual well adjacent to the well head; log scaling and weigh stations; disposal site for solid waste for which the Oregon DEQ has granted a permit, together with equipment, facilities or buildings necessary for its operation; private parks and campgrounds; mining and processing of oil, gas, or other subsurface resources; television, microwave, and radio communication facilities and transmission towers; fire stations for rural fire protection; utility facilities for the purpose of generating power; aids to navigation and aviation; water intake facilities, related treatment facilities, pumping stations, and distribution lines; reservoirs and water impoundments; cemeteries; new electric transmission lines with right-of-way widths of up to 100 feet, new distribution lines (e.g. electrical, gas, oil, geothermal) with rights of way 50 feet or less in width; temporary asphalt and concrete batch plants as accessory uses to specific highway projects; Type 2 or 3 Home Occupation; expansion of existing airports; public road and highway projects; private accommodations for fishing occupied on a temporary basis; forest management research and experimentation facilities or where accessory to forest operations; excavation, grading, and fill and removal within the bed and banks of a stream or river or in a wetland; a manufactured home in conjunction with an existing dwelling as a temporary use for the term of a hardship suffered by the existing resident or a relative; single-family dwellings or manufactured homes; public parks; private seasonal accommodations for fee hunting operations; any gathering subject to review by a county planning commission; and permanent storage and repair of logging equipment.

LPI – Permitted Outright: agricultural use; excavation, grading, or fill and removal activities involved in creation of a wetland in areas not requiring a conditional use permit for fill or removal; Class I and II road or street project; Class III road or street project; forest operation and forest practice including, but not limited to, reforestation of forest land, road construction and maintenance, harvesting of a forest tree species, application of chemicals, and disposal of slash; expansion of a valid use existing on

December 5, 1994; public use compatible with industrial uses; uses that require proximity to rural resources; scientific research or experimental development of materials, methods, or products, including engineering and laboratory research; light manufacturing, assembly, fabricating, or packaging and wholesale distribution; cold storage plant, including storage and office; kennel or veterinary clinic operated entirely within an enclosed building; processing use such as bottling plant, creamery, laboratory, blueprinting and photocopying, laundry, carpet and rug cleaning plant, cleaning and dyeing plant, and tire retreading, recapping and rebuilding; contractor's equipment storage or sale yard, house mover, delivery vehicles, transit storage, trucking terminal, and used equipment in operable condition; manufacture of concrete products and ceramic products using only previously comminuted raw materials; all types of automobile, motorcycle, boat, trailer, and truck sales, service, repair, storage, and rental; retail or combination retail/wholesale lumber and building materials yard, not including concrete mixing; manufactured home sales and service; and plant nursery and greenhouse.

LPI – Conditionally Permitted: mini-storage facility; hydroelectric facility; asphalt plant; lumber manufacturing and wood processing, including pulp and paper manufacturing; electrical substation; concrete, asphalt, and ready-mix plant; petroleum products storage and distribution; storage, crushing and processing of minerals, including the processing of aggregate into asphaltic concrete or Portland cement concrete; commercial feedlot, stockyard, sales yard, slaughterhouse, and rendering plant; railroad track, freight depot, and related facilities; agricultural products storage and processing plant; transfer station; automotive wrecking yard totally enclosed by a sight-obscuring fence; any use permitted that is expected to: require lot coverage in excess of 70 percent, require more than 1 acre of land, or generate any odor, dust, fumes, glare, flashing lights, or noise that would be perceptible without instruments 500 feet from the property line of the subject use; service commercial use, such as office, restaurant, café, refreshment stand, bar, and tavern, whose primary purposes is to serve industrial uses in the surrounding area, provided that such use is allowed as part of an Industrial Park Master Plan; and wireless telecommunications facilities.

OS&C – Permitted Outright: farm use; public and nonprofit agencies, museums and exhibits on lands where an exception has been granted; public wildlife reserve or management area, not including structures; Class I and II road or street project; Class III road or street project; operation, maintenance, and piping of existing irrigation systems operated by an Irrigation District; and construction, operation, and maintenance of small hydroelectric facilities, including transmission lines serving such facilities.

OS&C – Conditionally Permitted: private parks, picnic areas, or hunting and fishing preserves; public parks and recreational areas owned and operated by a governmental agency or nonprofit community organization; utility facility except landfills; water supply and treatment facility; excavation, grading, and fill and removal within the bed and banks of a stream or river or in a wetland; campground; wireless telecommunications facilities; and surface mining of mineral and aggregate resources in conjunction with the operation and maintenance of irrigation systems operated by an Irrigation District, including the excavation and mining for facilities, ponds, reservoirs, and the off-site use, storage, and sale of excavated material.

Jefferson County Zoning Permitted Uses

A1 – Permitted Outright: farm use; nonresidential buildings customarily provided in conjunction with farm use; farm stand; facility for processing farm crops or the production of biofuel; the transportation of biosolids by vehicle to a tract on which the biosolids will be applied to the land; propagation or harvesting of a forest product; creation, restoration, or enhancement of wetlands; breeding, kenneling, and training of greyhounds for racing, except the use is not allowed on high-value farmland; operations

for the exploration for and production of geothermal resources and oil and gas, including the placement and operation of compressors, separators and other customary production equipment for an individual well adjacent to the wellhead; operations for the exploration for minerals; fire service facilities for rural fire protection; irrigation canals, delivery lines, and those structures and accessory operational facilities associated with a district; utility facility service lines; on-site filming and accessory activities for 45 days or less; and a site for the takeoff and landing of model aircraft, including such buildings or facilities as are reasonably necessary.

A1 – Uses Permitted Subject to Administrative Review: a facility for the primary processing of forest products; parking no more than seven log trucks; commercial activity in conjunction with farm use, including the processing of farm crops into biofuel not otherwise permitted as a farm use or as a facility for processing farm crops or the production of biofuel; winery; land application of reclaimed water, agricultural, or industrial process water or biosolids for agricultural, horticultural, or silvicultural production, or for irrigation; operations for the extraction and bottling of water from a natural water source on the parcel where the operation will occur; home occupation; dog kennel; public or private schools, including all buildings essential to the operation of a school; churches and cemeteries in conjunction with churches; community centers owned by a governmental agency or a nonprofit organization and operated primarily by and for residents of the local rural community; firearms training facility in existence on September 9, 1995; living history museum; on-site filming and accessory activities for more than 45 days; a landscaping business or a business providing landscape architecture services, if the business is pursued in conjunction with the growing and marketing of nursery stock on the land that constitutes farm use; a residential home or facility may be allowed in an existing lawfully established dwelling; and utility facilities necessary for public service, including wetland waste treatment systems but not including commercial facilities for the purpose of generating electrical power for public use by sale of transmission towers over 200 feet in height.

A1 – Conditionally Permitted: propagation, cultivation, maintenance, and harvesting of aquatic species that are not under the jurisdiction of the State Fish and Wildlife Commission, or insect species; parks and playgrounds; private parks, playgrounds and hunting and fishing preserves; campground; golf course; guest ranch; personal use airport for airplanes and helicopter pads, including associated hangar, maintenance and service facilities; commercial utility facilities for the purpose of generating power for public use by sale; transmission towers over 200 feet in height; operations conducted for mining and processing of geothermal resources and oil and gas; operations conducted for mining, crushing, or stockpiling of aggregate and other mineral and subsurface resources; operations conducted for processing of aggregate into asphalt or Portland cement; operations conducted for processing of other mineral and subsurface resources; composting facilities for which a permit has been granted by the Oregon DEQ; and a site for the disposal of solid waste for which a permit has been granted by the Oregon DEQ together with equipment, facilities, or building necessary for its operation.

City of Metolius Zoning Permitted Uses

M1 – Permitted Outright: light manufacture (e.g., electronic equipment, printing, bindery, furniture, and similar goods); research facilities; warehousing and distribution; mini-warehousing and storage; automobile-oriented uses (vehicle repair, sales, rental, storage, service, and drive-up, drive-in, and drive-through facilities); medical and dental offices, clinics and laboratories; outdoor commercial uses (e.g., outdoor storage and sales); personal and professional services (e.g., child care, catering/food services, restaurants, laundromats and dry cleaners, barber shops and salons, banks and financial institutions, and similar uses); repair services; retail trade services, not exceeding 60,000 square feet of floor area per building; wholesale trade and services, not exceeding 60,000 square feet of floor area per

building; government facilities (e.g., public safety, utilities, school district bus facilities, public works yards, transit and transportation, and similar facilities); utilities (e.g., natural gas, electricity, telephone, cable, and similar facilities); special district facilities (e.g., irrigation district, and similar facilities); accessory uses and structures; wireless communication equipment; and uses similar to those listed above.

M1 – Conditionally Permitted: business parks.

City of Culver Zoning Permitted Uses

M1 – Permitted Outright: the making of commodities by manufacturing, assembling, fabrication, or compounding by manual labor or machinery, which occur totally within an enclosed structure, from which there is no odor, vibration, dust, or noise discernable to the human sensory perception beyond the exterior walls of the structure; and mini-storage facilities including onsite caretaker quarters.

M1 – Conditionally Permitted: the making of commodities by manufacturing, assembling, fabrication, or compounding by manual labor or machinery, which can occur outside an enclosed structure; outside storage, loading and unloading, stockpiling, from which there is no odor, vibration, dust, or noise discernable to the human sensory perception beyond the property line of the site; and agricultural support services including produce storage facilities.

City of Madras Zoning Permitted Uses

I – Permitted Outright: electronics firms with professional offices; secondary wood products (e.g., furniture, toys); manufacturing of recreation/sporting goods equipment; manufacturing of medical, dental, and orthopedic equipment; wholesale printing and publishing facilities and distribution centers; corporation headquarters and business offices directly related to industry; aircraft service maintenance, and aviation-related industry; energy-related manufacturing, research, and development; manufacturing of photographic equipment; mail order companies; medical research facilities; general research and development facilities; wholesale distribution and sales; wholesale bakeries and/or laundries; fire, police, or other governmental buildings; retail sales incidental or subordinate to a permitted use; public or semi-public use; facilities necessary to the operation of an industrial enterprise, or for a night watchman dwelling; Planned Unit Development District including Industrial condominiums related to business offices; transportation terminals; freighting or trucking yards and terminals; manufacturing, fabricating, processing, packaging or storage, repairing and warehousing, which are conducted within an enclosed building; petroleum and plastic products and shaping or distribution; manufacturing of manufactured homes and recreational vehicles; trucking and freighting yards, vehicle storage yards, or wrecking yards; processing and packaging of agricultural products (excluding animals); utility facilities (does not include Communication Tower requirements); repair garages, body and fender works, paint, and upholstery shops; lumber yards and building material yards; brick and pottery factories; recycling plants; steel and boiler works, fabrication, assembly and storage of structural steel products, foundries, and machine shops; ancillary uses (i.e., deli, tavern, mini-market); high-tech industry; food processing; general manufacturing; call centers; contractor's yards; and building roof and wall-mounted antennas for cellular, PCS, and similar radio services.

I – Conditionally Permitted: incidental and necessary services such as child care facilities and recreational facilities for persons working in the Industrial zoning district, when conducted within an integral part of a main structure and having no exterior display or advertising; asphalt, redi-mix operations, concrete or concrete products manufacturing including storage yards; lumber manufacturing, wood processing or yard storage incidental to use; stone cutting and shaping for

construction, ornamental and/or monumental purposes; communication tower requirements; chemical manufacturing or storage, including farm chemicals; glue manufacturing; and reduction, refining, smelting, or alloying of metals, petroleum products, or ores.

Crook County Zoning Permitted Uses

HM – Permitted Outright: farming; residence for caretaker or night watchman on property with an existing use; freight depot or terminal; truck or other heavy equipment sales and service; ice or cold storage plant and distribution center; wholesale distribution outlet, including warehousing; welding, sheet metal, or machine shop; construction-related business, warehousing, storage, sales and distribution, including open storage; veterinary clinic or kennel; government buildings including armories, maintenance, repair, or storage facilities, including open storage; concrete or concrete products manufacturing and distribution; lumber manufacturing and wood processing, except pulp and paper manufacturing; petroleum products storage and distribution; agricultural products processing, storage, and distribution; compounding, packaging, storage, and distribution of cosmetics, drugs, perfumes, pharmaceuticals, soaps or toiletries, etc., including refining or rendering of fats and oils; manufacture, repair or storage of ceramic products, musical instruments, novelties, toys, optical goods, scientific or electronic supplies and equipment, business machines, boats, mobile and modular homes, furniture, signs, and similar manufacturing; processing, packaging and storage of foods or beverages, including distillation, fermentation, rendering of fats or oils, and slaughtering; railroad trackage and related facilities including railroad equipment manufacturing and repair; quarry, gravel pit, subsurface or surface mining, including crushing, screening, and washing of extracted materials; manufacture, repair or storage of articles from bone, cellophane, cloth, cork, feathers, felt, fiber, glass, stone, paper, plastic, metal, wax, wire, wood, rubber, yarn, and similar materials; and livestock sales yard and slaughter house.

HM – Conditionally Permitted: the resumption of a residential use where such use has previously been conducted and has not been discontinued for a period exceeding six-months; public or semipublic use; automotive wrecking yard; commercial livestock feed lot; chemical manufacturing or storage including fertilizer manufacturing, wet mixing, or sulfuric acid manufacturing; glue manufacturing; acid manufacture and explosive manufacture and storage; pulp and paper mill; cement, lime, gypsum, or plaster of paris manufacturing; petroleum or petroleum products refining; rendering plant and tannery; any other manufacturing use except a use which has been declared a nuisance by statute or by action of the county or by a court of competent jurisdiction; and an eating or drinking establishment.

City of Prineville Zoning Permitted Uses

M1 – Permitted Outright: retail, wholesale, or service business establishment; residence, including a modular or manufactured home for a caretaker or night watchman on property with an existing industrial or commercial use permitted in this zone, or for the owner/operator of the use; private or public transportation station or depot; contractor's or building materials business, and other construction-related business, including plumbing, electrical, roofing, siding and the like with enclosed outside storage of materials and equipment; ice or cold storage plant, bottling plant, or food processing and/or packaging plant including enclosed outside storage; wholesale distribution outlet, including warehousing and including enclosed/sight-obscuring fenced outside storage and product display common to the use; welding, sheet metal, machine shop, or other metal fabrication establishment, including enclosed outside storage; veterinary clinic or kennel totally enclosed within a building; laboratory for experiment, research, testing, and education of nonhazardous materials; compounding, packaging, and storage of cosmetics, drugs, perfumes, pharmaceuticals, soap, or toiletries, excluding

refining or rendering of fats and oils; government buildings including armories, maintenance, repair or storage facilities, including enclosed outside storage of equipment and materials; manufacture, repair, or storage of ceramic products, musical instruments, novelties, rubber or metal stamps, toys, optical goods, scientific or electronic supplies and equipment, business machines, boats, furniture, signs, metal goods, tires and similar operations, including enclosed/sight-obscuring fenced outside storage of equipment and materials; lumber and other wood products manufacturing or remanufacturing provided all manufacturing is within an enclosed building; repair, rental, sales, servicing, and storage of machinery, implements, equipment, recreation vehicles, delivery and service vehicles, mobile or modular homes, and the manufacturing and/or assembling of all items listed herein, including enclosed/sight-obscuring fenced outside storage of equipment and materials; automobile and truck sales and service, including service stations and truck stops with cafés, convenience stores, carwashes and other directly related types of uses; machinery or heavy equipment sales, service, repair, rental and storage, provided all repair and service work on-site is within a building, and including open/outside display of equipment for sale, but requiring all equipment for repair and materials therefore be enclosed; farm, feed and/or garden supply business including enclosed storage with open display of equipment and goods, but excluding on-site processing, not totally enclosed within a building; storage building(s) and/ or facilities for household goods and recreational vehicles or equipment; taxidermy totally enclosed within a building; utility facilities necessary for public service; farming or farm use or a commercial use commonly associated with farm use; resumption or replacement of an existing single-family dwelling, including a manufactured home; land partitioning where no new road or street is created; replacement of bridges and other stream or canal crossing facilities; maintenance or repair of an existing transportation facility, including reconstruction, surfacing, minor widening or realignment of an existing road within an existing right-of-way, including the addition of turn refuges at existing street intersections, but not including the addition of through travel lanes; temporary improvements in association with construction projects, such as temporary roads and detours; bikeways, footpaths and recreation trails; construction of new streets and roads, including the extensions of existing streets and roads that are included within locally adopted transportation systems plans (as may be amended), the State Highway Transportation Improvement Plan or as has been identified in a specific development review and approval process; and tire manufacturing business, which includes all of the following elements: tire and tire equipment manufacturing, retail sales, distribution, warehousing, trucking, and associated repair and office facilities.

M1 – Conditionally Permitted: automobile and other automotive wrecking yard, including enclosed outside storage of vehicles and materials; the resumption of a residential use, including a manufactured or modular home, where the subject use has previously been conducted and has not been discontinued for a period exceeding one year; any use permitted as an outright use where buildings are proposed to occupy more than 70 percent of the total lot or parcel area; any use permitted as an outright use that is adjacent to or within 100 feet of an existing residential zone, or within 200 feet of an existing hospital, nursing, or convalescent home or similar noise-sensitive use, measured horizontally from the actual use or development; any use permitted that is located within an airport approach zone; governmental structure or land use; community, fraternal, or social organization building; telephone, radio, and television facilities and electrical and other public or private utility facilities; secondhand store, pawn shop; sales, service, and repair, including enclosed/outside storage and display; mortuary, undertaking, or funeral parlor, including crematorium; utility substations; any use proposing open/outside storage of equipment and materials as an outright use excluding open/outside storage of equipment and/or materials; concrete or ready-mix plants or quarry or other mining operation, or asphalt plants; agricultural products storage and processing plants, including agricultural fertilizer and chemical operations; petroleum, synthetic, or other fuel producing and/or packaging plant, and by-products

thereof, including storage and distribution; commercial utility facilities or other facilities for the purpose of generating power for sale; operations conducted for the mining and processing of geothermal resources; solid waste transfer station and/or recycling facility; temporary mobile home or recreation vehicle park; and any other retail trade, business or industrial uses found similar to or compatible with the existing uses in the M-1 Zone that have not been declared a nuisance by the city, the county, or a court of competent jurisdiction, provided the use is not expected to create a nuisance because of odor, noise, dust, smoke, gas, traffic or other factors, is found to be in compliance with applicable nuisance and pollution regulations and is not specifically permitted in another zone.

M2 – Permitted Outright: farming and farm use, including the on-site storage and processing of farm products produced on-site or on other lands owned, lease, rented or otherwise farmed by the owner/operator; residence, including a modular or manufactured home, for a caretaker or night watchman on property with an existing use permitted by this section, or for the owner/operator of the use; public or private transportation station, freight depots or terminals, including railroad facilities, semi-truck parking and staging, and public or private parking facilities; truck or other heavy equipment sales and service; wholesale and retail distribution outlet, including warehousing and associated enclosed/fenced outside storage; welding, sheet metal, machine or other metal fabrication shop; construction-related business, warehousing, storage, sales, and distribution, including open storage; veterinary clinic or kennel, including outside, open holding facilities for livestock; government buildings including armories, maintenance, repair or storage facilities, including open storage; lumber manufacturing, remanufacturing and other wood processing, except pulp and paper manufacturing; compounding, packaging, storage, and distribution of cosmetics, drugs, perfumes, pharmaceutical, soaps or toiletries and the like, not including refining or rendering of fats and oils for the products; manufacture, assembly, repair, or storage of ceramic products, musical instruments, novelties, toys, optical goods, scientific or electronic appliances and equipment, business machines, computers, boats, manufactured and modular homes, furniture, signs, metal goods, tires and similar manufacturing, including associated enclosed/fenced outside storage of equipment and materials; railroad trackage and related facilities including railroad equipment manufacturing and repair; manufacture, repair, or storage of articles from bone, cellophane, cloth, cork, feathers, felt, fiber, glass, stone, paper, plastic, metal, wax, wire, wood, rubber, yarn and similar materials; home occupation or cottage industry conducted in an existing dwelling or in a structure accessory to the dwelling provided that all other limitations on home occupations or cottage industries are complied with; storage buildings and/or facilities, not including those used for commercial sales and/or service, either wholesale or retail; automobile and truck sales and service, including automotive fueling stations and truck stops with cafés, carwashes, auto and truck repair, convenience store, tire centers, and other directly related types of uses as an accessory use thereto, including but not limited to retail and wholesale tire and brake sales, installation and maintenance and repairs and other directly related types of uses, including associated open or canopied service and enclosed or canopied storage; farm, feed and/or garden supply business including plant nurseries and greenhouses with open storage and/or display of equipment and goods, and including on-site processing not totally enclosed within a building; utility facilities necessary for public service; and tire manufacturing business, which includes all of the following elements: tire and tire equipment manufacturing, retail sales, distribution, warehousing, trucking and associated repair and office facilities.

M2 – Conditionally Permitted: any use permitted as an outright use that is located adjacent to, within 100 feet of, or across the street from an existing residential zone where buildings are proposed to occupy more than 70 percent of the total lot or parcel area; any use permitted as an outright use that is adjacent to or within 100 feet of an existing residential zone, or within 200 feet of an existing hospital,

nursing, or convalescent home or similar noise-sensitive use, measured horizontally from the actual development or use, except those uses permitted as they existed, on or before the effective date of this chapter, including any exterior expansion, alteration, or remodeling thereof not to exceed 25 percent of the total square footage of all enclosed structures existing on a lot, parcel, or tract under a unit ownership on or before the effective date of this chapter; the resumption or replacement of a residential use where the subject use has previously been conducted and the use or structure has not been abandoned or removed for a period of more than one year; automotive wrecking yard; livestock sales yard and slaughter house totally enclosed within a building, but including outside loading/unloading facilities; quarry, gravel pit, subsurface or surface mining, including crushing, screening and washing of extracted materials subject to approval of the state Department of Geology & Mineral Industries, and for a site included within a required Goal 5 resource site inventory; concrete or concrete products manufacturing and distribution; taxidermy; solid waste transfer station and/or recycling facility; commercial operation for agricultural products processing, storage, and distribution; ice, cold storage, bottling, food processing and/or packaging plant or distribution center; petroleum products, storage, and distribution; compounding, packaging, storage and distribution of cosmetics, drugs, perfumes, pharmaceutical, soaps or toiletries and the like, including refining or rendering of fats and oils for such products; processing, packaging, and storage of foods or beverages including distillation, fermentation, rendering of fats or oils and slaughtering; commercial livestock feed lot, stockyards, sales yards, and slaughter house where all activities are not enclosed within a building; chemical, manufacturing or storage including fertilizer manufacturing, wet mixing or sulfuric acid manufacturing; glue manufacturing; acid manufacturing and explosive manufacturing and storage; pulp and paper mill; cement, lime, gypsum, or plaster of paris manufacturing; petroleum or petroleum products refining; asphalt plant; rendering plant and tannery; quarry, gravel pit, subsurface or surface mining, including crushing, screening, and washing of extracted materials subject to approval of the state Department of Geology & Mineral Industries, and for a site not included within a required Goal 5 resource site inventory; temporary recreation vehicle park; and any other manufacturing use not specifically listed in this section, except a use that has been declared a nuisance by statute or by action of the city, the county, or by a court of competent jurisdiction, provided the use is not expected to create a nuisance because of odor, noise, dust, smoke, gas, traffic or other factors, is found to be in compliance with applicable nuisance and pollution regulations, and is not specifically permitted in another zone.

City of Redmond Zoning Permitted Uses

M1 – Permitted Outright: homeless shelter; bakery (retail/sit-down); bar, lounge, tavern, nightclub, café, restaurant (sit-down), diner, brew pub; café, restaurant, espresso (drive-through); auto detailing; auto painting, auto body work; auto repair; car wash; card lock gas station; truck stop; truck terminal; vehicle storage; towing yard; aircraft service, maintenance; bakery, wholesale distribution; commercial manufacturing (retail support, craftsmen); distribution center; enclosed warehousing and manufacturing; landscaping supply (bulk); manufacturing (light industrial); medical research facility; precision machine shop; retail uses in support of primary industrial use; wholesale printing and distribution; wood product manufacturing and assembly; offices related to industrial use; printing, publishing; park, public or private; heavy equipment sales; contractor service; kennel; and mini storage.

M1 – Conditionally Permitted: caretaker/watchman; indoor commercial recreation; auto wrecking, recycling; rock crushing/recycling; office; telemarketing, call center; churches, religious institutions; lodge, club, non-profit/fraternal organization; public transportation station; schools, public or private; utility facility; heavy equipment service contractor's yard; child care home, center; and motel, hotel.

M2 – Permitted Outright: caretaker/watchman; bakery (retail/sit-down); bar, lounge, tavern, nightclub; café, restaurant (sit-down), diner, brew pub; café, restaurant, espresso (drive-through); auto painting, auto body work; auto repair; auto service; car wash; card lock gas station; truck stop; truck terminal; vehicle storage/towing yard; aircraft service maintenance; auto wrecking, recycling; bakery, wholesale distribution; batch plants (asphalt/concrete); commercial manufacturing (retail support, craftsmen); concrete and concrete products, stone-cutting; distribution center; enclosed warehousing and manufacturing; junkyard; landscaping supply (bulk); lumber mill; manufacturing (heavy industrial); manufacturing (light industrial); medical research facility; precision machine shop; retail uses in support of primary industrial use; rock crushing/recycling; slaughterhouse; tanning, curing, storing of hides; wholesale printing and distribution; wood product manufacturing and assembly; offices related to industrial use; park, public or private; heavy equipment sales; heavy equipment service; heavy equipment storage (outdoor); contractor service; contractor's yard; kennel; and veterinarian.

M2 – Conditionally Permitted: indoor commercial recreation; dump, landfill; public transportation station; and utility facility.

OSPR – Permitted Outright: grazing of livestock and horses; production of crops; parks, trails, reserve areas; and public facilities including cemetery.

OSPR – Conditionally Permitted: single-family dwelling; other farm uses; recreational facilities; and museum, theater, community center.

Comprehensive Plan Language for each Jurisdiction

City of Prineville

Urban Area Comprehensive Plan Economic Development Policies

Chapter 5 – Economy

- Updates to inventories and analysis of needed industrial and commercial land types, existing land supplies, and economic development strategies for meeting the requirements of the community are essential. It is necessary to provide adequate buildable industrial and commercial land for at least 20 years.
- State, local, and nationwide trends are not adequate to properly estimate needed industrial and commercial lands. Other local information and economic development targeting goals must be used to properly evaluate future land needs.
- Adequate public facilities must be planned, funded, and installed to serve industrial sites and commercial areas.
- Preservation of large industrial parcels over 20 acres in size will attract target industries and new manufacturing businesses.
- Additional land is needed to support commercial and industrial uses. Where there are particular locational requirements for certain activities, amendments to the Comprehensive Plan may be necessary. Amendments should be evaluated in relation to all applicable policies of the Comprehensive Plan.
- Successful economic development strategies require cooperation with a variety of agencies and other groups to develop a plan that best meets the requirements of a growing community.

- Successful economic opportunities rely upon the community’s ability to support and connect various elements of the economic development into an integrated framework.
- Promoting an entrepreneurial climate for existing and new businesses is a key factor in strategic planning.
- Providing a strong public partnership with local businesses is key to successful economic development.

City of Redmond

2020 Comprehensive Plan Economic Development Policies

Chapter 9 – Economic Development

- 9-1 Sufficient vacant industrial lands with a diversity of sizes, types, and service levels for future industrial development shall be designated on the comprehensive plan/zoning map.
- 9-2 Publicly-owned lands shall not be given a competitive advantage over private ownership through governmental land use regulations.
- 9-3 Industrial areas should be set aside primarily for industrial activities. Other supporting uses, including some retail uses, may be allowed if limited to sizes and locations intended to serve the primary uses and the needs of people working or living in the immediate industrial areas.

City of Bend

Comprehensive Plan (Bend Area General Plan) Economic Development Policies

Chapter 6 – The Economy and Lands for Economic Growth

- 6-1 In order to help meet the long-term need for future industrial development, at least 500 acres of the City-owned property known as Juniper Ridge shall be brought into the UGB, annexed to the city, and designated on the Bend Urban Area General Plan Map as Industrial Light.
- 6-2 Prior to permitting industrial development on the Juniper Ridge site, the City shall prepare and adopt a development plan for the area. Preparation of the plan shall include an assessment of public facilities improvements, including transportation facility improvements, which may be needed to support industrial development.
- 6-3 The development plan for the Juniper Ridge site shall allocate at least 30 percent of total net buildable area for sites of 10 acres and larger in size. Through the use of deed restrictions or other appropriate instruments, the City shall ensure that these large-lot sites will not be further subdivided prior to development.
- 6-4 The City shall work to preserve prime industrial lands for industrial purposes.
- 6-5 The community shall attempt to diversify its industrial base.
- 6-8 Industrial areas shall be protected from incompatible commercial and residential uses.

City of La Pine

The City of La Pine does not have an adopted Comprehensive Plan.

City of Madras

Madras Comprehensive Plan Economic Development Policies

Section III – Goals and Policies

The City shall seek opportunities to:

- C. Identify types of industries, which could be suitably located in Madras area and promote the advantage of the Madras industrial site to those types of industries.

Crook County

Crook County Comprehensive Plan Economic Development Policies

Economics

1. To diversify, stabilize, and improve the economy of the county.
2. To coordinate all planning programs and decisions concerning economical base resources in the county and to maintain an economic-environmental balance in all resource management and allocation decisions.
3. To require that development plans are based on the best economic information available and to take into account areas suitable for economic development, the effects on the existing economy, available resources, labor market factors, transportation, and livability.
4. To require an economic analysis of all major development proposals, resource management proposals, and allocation decisions.
5. To insure implementation of policies set forth in the commercial and industrial sections of the Land Use element of this Plan (Chapter III).
6. To implement programs and policies which provide economic and regulatory incentives for industrial stabilization and development.
7. To insure that implementing regulations provide maximum protection for existing industry and for expansion thereof, and to provide ample land area for additional industrial growth.
8. To insure that implementing regulations provide maximum protection for all existing economic developed areas and for expansion thereof.
9. To continue participation in the OEDP Program (County Overall Economic Development Plan and Program) to insure maximum opportunity for economic development assistance and financing.

Deschutes County

Deschutes County Comprehensive Plan Economic Development Policies

Chapter 23.52 – Economy

- 3 Land.
 - a. Adequate lands for commercial and industrial requirements shall be set aside (see Rural Development and Urbanization chapters).

- b. In order that local residents have adequate employment the County shall encourage programs that appropriately increase employment opportunities and assist, where feasible, public plans and programs to develop industrial land.
- c. While medium and heavy industry which meets State and Federal pollution standards shall be accommodated, the County shall seek and encourage only non-polluting (most likely light industry) manufacturers which are compatible with existing air and water quality.
- d. Deschutes County and the City of Bend will explore the feasibility of using the BLM land adjacent to the northern boundary of the original Bend UGB, and fronting on the east side of Highway 97, as future industrial land. The County shall work with the BLM to protect this land for possible industrial use until a final land use determination is made.
- e. Publicly-owned land is a community resource that should be used as trading stock and otherwise to implement this plan thereby assisting and meeting the community's future needs.
- f. Where there is a demonstrated public need for conversion of public land to private use, the County should continue to sell such land at public auction.
- g. Deschutes County shall cooperate with other local agencies in the preparation of a County-wide economic development plan and as an interim plan shall adopt as part of this plan the Deschutes County Overall Economic Development Plan.
- h. Deschutes County recognizes that the City of Redmond may need additional land for future industrial use. Thus, the 909 acres within County jurisdiction immediately to the south of the Redmond Airport, located outside of the UGB, and further described as the southern half of Sections 27 and 28, and that portion which lies to the west of the COI North Unit Canal in the southern half of Section 26, all in Township 15 South, Range 13 East, shall be considered for future industrial use. The County will take the necessary steps to preserve this area and preclude development which would be incompatible with industrial development.

Jefferson County

Jefferson County Comprehensive Plan Economic Development Policies

Part 2 – Goals and Policies – Goal 9 Economic Development

Policy 2: Adequate land in appropriate areas should be provided for industrial development.

- 2.1 When possible, industrial lands should be located adjacent to or near existing industrial uses or an UGB.
- 2.2 Industrial uses may be appropriate in unincorporated areas of the County when necessary to be near a resource utilized by the industry, when a location adjacent to rail lines is important for shipping needs, or when warranted because of space needs or probable impacts from the use.
- 2.3 The area north of the Madras City-County airport, adjacent to the existing city industrial park, may be a suitable location for additional industrial land, provided new industry in that area would not produce dust, steam or other emissions that would obscure visibility for pilots.
- 2.4 “Clean” or light industrial uses are preferable near city limits.

- 2.5 When considering whether land should be rezoned for industrial use, preference should be given to lands that are not irrigated, that have adequate sanitation and water, and that have adequate road access.
- 2.6 The permitting and approval process for new industrial development should be streamlined if possible.
- 2.7 When considering whether an industrial use should be permitted, the potential social, economic, environmental and energy impacts on the local area should be taken into account.

Site Scoring Matrix

Site	Inside UGB	Zoned Industrial	Acreage*	Rail Access**	Off Site Rail Support Infrastructure	Access to HWY/Freight Corridors	Close to Rail Served Industries	Development Costs	Neighborhood Issues	At-Grade Crossings	Total	Additional Considerations	
City of Prineville Sites													
1. Combs Flat Road Industrial Site	1	1	1	0	0	0	0	-1	0	-1	1	City has designated this for commercial use	
2. South Main St. Industrial Area	1	1	1	3	0	0	0	-1	-1	-1	3		
3. North Main St. Industrial Area	1	1	2	3	0	0	1	-1	-1	-1	5		
4. Northwest Industrial Park	1	1	2	3	1	1	1	0	0	-1	9		Location of COPR Freight Depot
Crook County Sites													
1. Crook County Heavy Industrial Zone	0	1	3	3	0	1	1	0	0	0	9		
City of Redmond Sites													
1. Hemlock Industrial Area	1	1	3	1	1	0	1	-1	0	-1	6		
2. Airport West Industrial Area	1	1	3	1	0	0	0	-1	-1	-1	3		
3. Badger Avenue Industrial Area	1	1	2	1	0	1	0	-1	0	0	5		
4. COID OSPR Area	1	0	3	0	0	1	1	-1	0	0	5		
City of Bend Sites													
1. Juniper Ridge Phase 1	1	0	3	1	0	0	0	-1	-1	-1	2		
2. Nels Anderson Industrial Area	1	1	1	1	0	1	1	-1	-1	-1	3		
3. Boyd Acres Industrial Area	1	1	1	1	0	1	1	-1	0	-1	4		
4. NE 1st Street Industrial Area	1	1	1	1	1	0	1	-1	0	-1	4		
5. Old Mill District	1	1	1	0	0	1	0	-1	-1	-1	1		
6. Centennial Industrial Area	1	1	1	1	1	0	1	0	-1	-1	4	Future High school site and area of special interest.	
7. SE Bend Residential Area	1	0	3	1	1	0	0	-1	-1	-1	3		
8. The Thumb	0	0	3	1	0	1	0	-1	0	0	4		
City of LaPine Sites													
1. LaPine Forest Use Zone	1	0	3	0	1	1	0	-1	0	-1	4	Currently no rail service to La Pine. With a large industrial user, and adequate support infrastructure BNSF may serve sites	
2. LaPine Industrial District	1	1	3	0	1	0	0	-1	0	-1	4		
Deschutes County Sites													
1. Prineville Junction	0	0	3	4	1	1	1		0	-1	9	There is strong interest in developing this parcel for industrial. A zone change, inclusion in the UGB would rank this site in the top tier.	
2. DSL South Redmond Tract	0	0	3	1	0	1	1	-1	0	-1	4		
3. Juniper Ridge Phase 2	0	0	3	1	0	1	0	-1	0	-1	3		
City of Madras Sites													
1. Madras Industrial Zone	1	1	3	1	1	1	1	0	0	-1	8		
Jefferson County Sites													
1. North Madras EFU Zone	0	0	3	1	0	0	1	-1	0	-1	3		
2. West Madras EFU Zone	0	0	3	1	0	0	1	-1	0	-1	3		
3. Metolius Industrial Zone	1	1	2	1	1	0	0	0	0	-1	5		
4. Culver Industrial Zone	1	1	1	1	0	0	0	0	0	-1	3		
5. Belmont Lane Industrial Zone	0	1	1	1	0	0	1	0	0	-1	3		
	*	0-50 Acres = 1	51-100 Acres =2	101+ Acres =3	Sites are weighted based on vacant land within the site and excluding built out land								
	**	BNSF Main = 1	COPR = 3		Weighting reflects increasing difficulty of acquiring and retaining rail service off of a mainline								