
3.6 Traffic and Circulation

Construction of the Wanapa Energy Center would most likely affect traffic flow on McNary Beach Access Road, U.S. Highway 730, and U.S. Highway 395/State Route 32. Up to 600 workers would travel to the facility site during construction, 100 to the natural gas supply/wastewater discharge pipeline routes, and 120 to the transmission line route. During operation, 30 workers would work at the facility.

3.6.1 Affected Environment

Major highways accessing the project study area include U.S. Highway 730 (i.e., U.S. Highway 730; the Columbia River Highway), U.S. Highway 395/State Route (SR) 32 (i.e., SR 32; the Umatilla-Stanfield Highway), Interstate 82 (I-82), and State Route 207 (i.e., the Hermiston Highway). U.S. Highway 730 is a 2-lane west-east highway that generally runs along the south side of the Columbia River. U.S. Highway 395/SR 32 is a 2-lane northwest-southeast highway that runs from U.S. Highway 730 in the north; through Umatilla, Hermiston, and Stanfield; and then to I-84/U.S. 30 in the south. I-82 is a 4-lane highway running north-south from the Tri-Cities in Washington until it intersects with I-84/U.S. 30. SR 207 is a 2-lane highway that runs southwest-northeast, starting at I-82 in the west, through Hermiston, and then intersecting with U.S. Highway 730 in the east. **Table 3.6-1** summarizes the average daily traffic (ADT) and accident counts by milepost and location for these major roadways for 2001.

Direct access to the project site is via McNary Beach Access Road, about 0.5 mile north of its intersection with U.S. Highway 730. McNary Beach Access Road is a narrower 2-lane paved county road. McNary Beach Access Road has a load limit of 105,000 pounds. Loads greater than this limit would require obtaining a permit from the Umatilla County Public Works Department (Phillips 2003a).

McNary Beach Access Road had a traffic count of 904 vehicles for a 24-hour period, from noon of August 25, 2003, until noon of August 26. In comparison, the same site had a traffic count of 350 vehicles per day on May 26, 1998, prior to the construction and operation of the TRCI. Peak traffic periods during the 2003 count occurred 6:00-8:00a.m. and 3:00-4:00 p.m. Average speed on the road was 46 miles per hour. (Phillips 2003b).

Table 3.6-1
Average Daily Traffic and Accident Counts - 2001

| Highway/ Milepost | Location Description | ADT | Accidents |
|-----------------------------|--|--------|-----------|
| U.S. Highway 730: | | | |
| 182.60 | Western Umatilla city limits to Umatilla Bridge spur | 8,234 | 8 |
| 184.03 | Umatilla Bridge spur to U.S. Highway 395/SR 32 | 10,100 | 5 |
| 184.80 | U.S. Highway 395/SR 32 to eastern Umatilla city limits | 6,339 | 7 |
| 186.85 | Eastern Umatilla city limits to junction with SR 207 | 3,079 | 1 |
| Subtotal | | | 21 |
| U.S. Highway 395/ SR 32: | | | |
| 0.04 | U.S. Highway 730 to northern Hermiston city limits | 11,721 | 18 |
| 4.22 | Northern Hermiston city limits to junction with SR 207 | 17,028 | 43 |
| 5.40 | North of junction with SR 207 to south of junction with SR 207 | 20,200 | 4 |
| 5.46 | South of junction with SR 207 to southern Hermiston city limits | 10,430 | 15 |
| 8.45 | Hermiston to Stanfield | 8,377 | 4 |
| 9.25 | Stanfield | 7,491 | 7 |
| 12.44 | Stanfield to junction with I-84/US 30 | 6,700 | 0 |
| Subtotal | | | 91 |
| Interstate 82: | | | |
| 0.00 | Washington State line to northern Umatilla city limits | 15,300 | 0 |
| 0.48 | Northern Umatilla city limits to UPRR crossing | 15,300 | 2 |
| 0.76 | UPRR crossing to crossing of U.S. Highway 730 | 15,300 | 1 |
| 1.00 | U.S. Highway 730 crossing to beginning structure SBD | 9,300 | 1 |
| 1.65 | Beginning to end of structure SBD | 9,300 | 0 |
| 1.84 | End of SBD structure to southern Umatilla city limits | 9,300 | 2 |
| 2.07 | Southern Umatilla city limits to crossing of Westland-Ordinance Road | 8,978 | 5 |
| 9.78 | Crossing of Westland-Ordinance Road to junction with I-84/US 30 | 8,700 | 3 |
| Subtotal | | | 14 |
| SR 207: | | | |
| 0.02 | Junction of U.S. Highway 730 to eastern Hermiston city limits | 4,267 | 13 |
| 6.15 | Eastern Hermiston city limits to U.S. Highway 395/SR 32 | 6,909 | 5 |
| 7.30 | U.S. Highway 395/SR 32 to Northwest Buttercreek Road | 8,186 | 10 |
| 8.34 | Northwest Buttercreek Road to southern Hermiston city limits | 8,962 | 20 |
| 9.04 | Southern Hermiston city limits to junction with I-84/ US 30 | 5,404 | 7 |
| Subtotal | | | 55 |

Source: Oregon Department of Transportation (DOT) 2002.

Note: Since 1998, a crash (referred to as an accident, above) has to be reported if it occurs on a public roadway and results in a fatality, bodily injury, or damage to one person's property in excess of \$1,000.

Additional modes of transportation to the project study area include river barge access via the Port of Umatilla facilities on the Columbia River and railroad access via the UPRR, both located within or east of Umatilla and west of the project site. Air access to the study area is available via the Hermiston Municipal Airport. The airport does not have passenger or air freight service, but air charter services are available. The airport has a 4,500- by 75-foot runway (Oregon Economic & Community Development Department 2003).

3.6.2 Environmental Consequences and Mitigation

Construction of the project is estimated to take 24 to 26 months, starting in the fourth quarter of **2005**, with a ramp-up of activities during the beginning of construction and ramping-down at the end. Most construction materials and equipment likely would be shipped to the project site by the statewide and regional highway transportation system. Regional transportation access would be via U.S. Highway 730, located about 0.5 mile south of the project access road, and then McNary Beach Access Road. The new paved access road would be about 7,525 feet (1.4 miles) long and would extend from the McNary Beach Access Road to the power plant site. Large power plant equipment, such as the turbines and steam generators, might be shipped by rail and then offloaded in Hermiston or Umatilla for trucking to the project site on U.S. Highway 395/SR 32 or U.S. Highway 730. Alternatively, this equipment could be barged to the Port of Umatilla and then offloaded and transported by the McNary Beach Access Road to the project site. Major construction equipment accessing or being hauled to the various components of the project could include personal vehicles, light and heavy trucks, welding trucks, farm tractors, backhoes, bucket-wheel excavators, concrete trucks, bulldozers, graders, side booms, and cranes.

The large power plant and construction equipment may require transport of wide and/or long loads, requiring lead and/or follow-up vehicles and would be slower moving than typical lighter vehicles such as cars, and pickup trucks. Thus, these large tractor trailer and other vehicles could result in some traffic congestion and an increase in the potential for vehicular accidents. Assuming that the majority of workers and truck deliveries would turn north from U.S. Highway 730 onto Beach access road, it is likely that from 300 to 500 personal vehicles could turn left or right off U.S. Highway 730 onto Beach Access road at shift changes over a period of 1 to 2 hours. This traffic increase would be 10 to 20 percent of the current daily traffic on this segment of U.S. Highway 730; the estimated traffic increase for Beach Access Road would be 30 to 60 percent of the current daily traffic levels.

To reduce the potential for pipeline construction impacts on traffic, when constructing in or near a roadway, one traffic lane would always remain open. Some major roadways might be directionally bored to avoid damage to the travel surface and traffic disruptions. It is assumed that basalt mostly underlies U.S. Highway 730, so an open cut crossing is planned there and a traffic control plan would be implemented to avoid disruptions to traffic. Railroads and irrigation canals would be directionally drilled to avoid loss of service.

In addition, 100 to 600 workers would be traveling to the project site during the 24 to 26 months of construction, 100 would be working on the natural gas supply/wastewater discharge pipeline routes over 3 months, and 120 would be working on the transmission line route over 4 months. These workers may travel to the construction sites with private vehicles, by carpooling or vanpooling, or some could be bused to the site. These workers would likely originate from throughout Umatilla County, Morrow County, and the Tri-Cities area in Washington, and would represent a dispersed increase in traffic into the study area.

Beginning in the fourth quarter of **2007**, the project would operate 24 hours each day, 365 days a year. During operation, 30 workers would be accessing the facility, likely over the course of three work shifts. Most of this vehicular access to the project site would be with private vehicles and trucks from Hermiston, Umatilla, or other parts of Umatilla County. Additional truck traffic would occasionally occur to the project site to deliver materials and supplies, and to conduct maintenance and repairs. The impacts of this traffic would be minimal and would require no mitigation.

Recommended Mitigation.

T-1. Implement partial plant site shift changes to reduce the number of personal vehicles that queue at the Beach Access Road/U.S. Highway 730 intersection.

T-2. Time major construction material deliveries to off-peak hours (early morning, late evening) to prevent local congestion on U.S. Highway 730.

T-3. A site-specific construction traffic flow plan would be submitted to the Oregon DOT that documents the present traffic volumes, expected volume of project construction traffic, and the intersections to be used. If warranted by this study, the width of the U.S. Highway 730 at the Beach road intersection (or other intersections) would be expanded to provide left-hand and right-hand turn lanes.

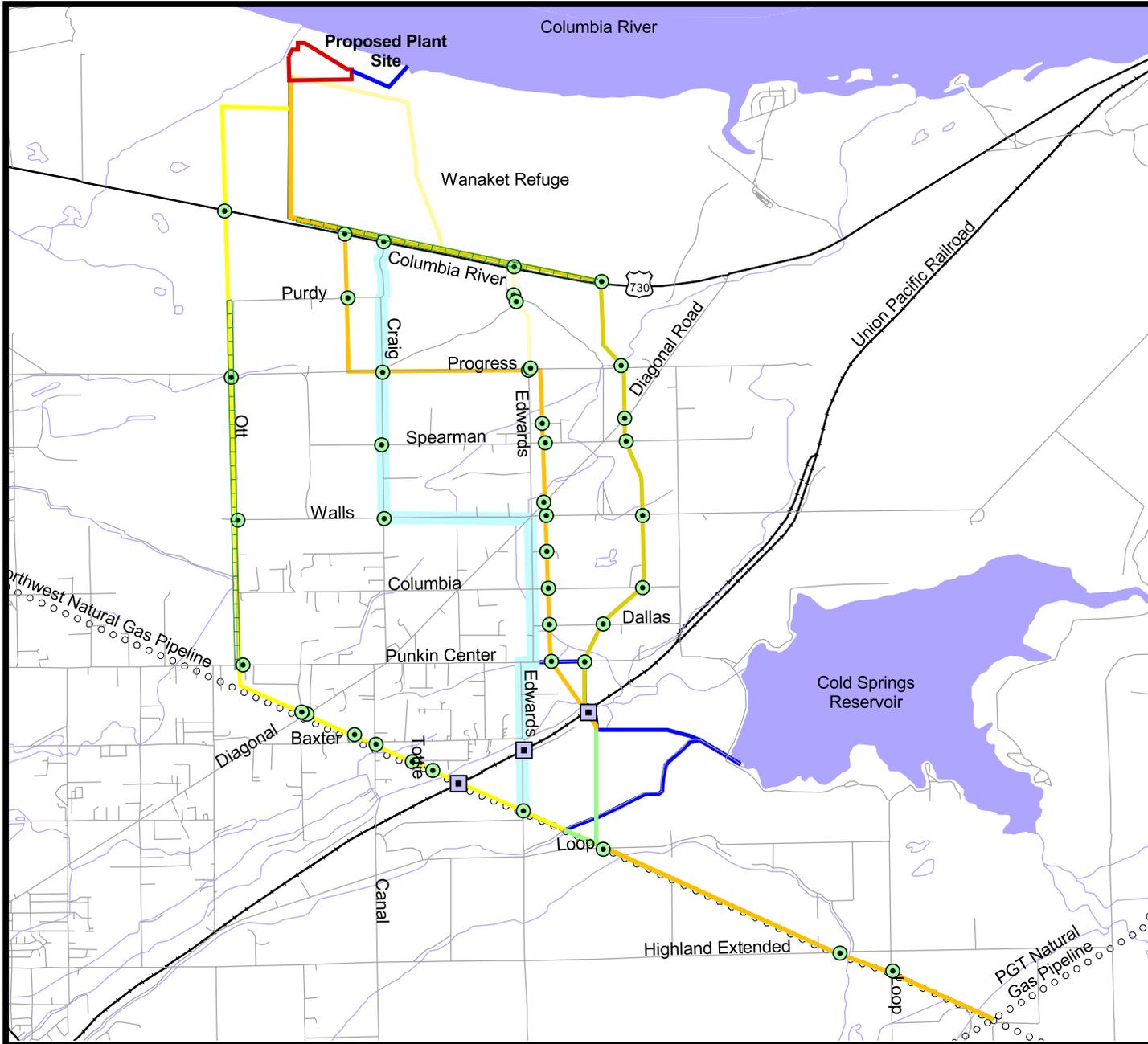
3.6.3 Proposed Action Impact Summary

Project construction and operation would result in increased traffic on U.S. Highway 730, U.S. Highway 395/SR 32, and local roads. Temporary traffic increases on access roads during a 24- to 36-month period for power plant construction. Temporary traffic increases on roads used for the pipelines and electric transmission line would occur during a 3- and 4-month period, respectively. Increased traffic levels also would result in an increased risk for accidents. Increased traffic for an estimated 30 workers would occur during plant operation. Impacts on traffic levels and flow and accident risks would be reduced by implementing a traffic flow plan, timing major construction traffic during off-peak hours, and use of partial site shift changes at the plant.

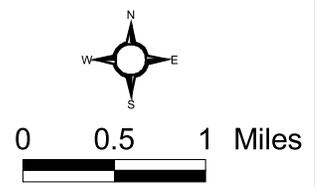
3.6.4 Component Alternatives Impact Summaries

Gas and water discharge pipelines construction effects on local traffic and circulation would consist of open cut road crossings across gravel roads, and boring under larger highways and paved roads. Railroads would be bored. The pipeline route options are similar in the number of highway and county road crossings that would be required (Figure 3.6-1). However, Alternative 5 and 6 would be installed in the county road right-of-ways, either in the roadway, or next to the roadway, with equipment stationed on the road. This construction could require one way traffic with traffic controllers, or detours. As a consequence, travelers on Craig, Walls, and Edwards Roads could experience detours or short-term delays for several weeks during the construction period. Electrical transmission line construction would not interfere with local traffic except for very short periods of time when the conductors are pulled through conductor reels above road crossings. Construction of the plant discharge water pipeline would coincide with gas pipeline construction for any of the gas pipeline alternatives; no construction near, or in highways and county roads would be required to construct the plant discharge water pipeline between the plant site and the Columbia River .

3.6-6



- Legend**
- Pipeline ROW Located Parallel to Road ROW
 - Railroad Crossing
 - Road Crossing
 - Pipeline ROW Located within Road ROW
 - Natural Gas / Plant Discharge Water Pipeline Alternative ROWs
 - Natural Gas Pipeline Alternative ROWs
 - Plant Discharge Water Pipeline Alternative ROWs
 - Channels
 - Railroads



Wanapa Energy Center EIS

Figure 3.6-1

Pipeline Route Alternatives Interaction with Local Transportation System