SECTION 5.2 TRANSPORTATION
(WAC 463-42-372)

This section presents information on the transportation-related aspects of the project. The information is provided in the following sections:

Transportation Systems & Vehicular Traffic (Section 5.2.1)
Waterborne, Rail, and Air Traffic (Section 5.2.2)
Parking (Section 5.2.3)
Movement/Circulation of People or Goods (Section 5.2.4)
Traffic Hazards (Section 5.2.5)

5.2.1 TRANSPORTATION SYSTEMS & VEHICULAR TRAFFIC

Approximately 120 roads will be affected by the pipeline. The pipeline will either cross or lie parallel to these roads, and will be adjacent to the existing roadway and within the road right-of-way as much as possible.

The pipeline will cross Interstate 90 at three locations: one crossing will be under I 90 within the existing Cedar Falls Trail; and two crossings will be under I-90 using a jack-and-bore technique. The pipeline will cross 12 designated federal and state highways. Along Tinkham Road, a Forest Service road, the pipeline will be placed within the roadbed itself. Tinkham Road will have to be closed and rebuilt as a result of the pipeline construction. Almost all of the pipeline across Snoqualmie Pass will be within existing rail-trail grade or the Tinkham Road right-of-way. The remaining roads are classified as county or local facilities.

The pipeline will be bored under all federal and state classified roadways and railroads. Consequently, traffic will not be affected by the construction, except for an occasional short disruption of traffic to get equipment to the other side of the highway. No disruptions of traffic will occur on interstate highways. The pipeline will be trenched through all county, local and private roads. Traffic using these roads will experience delays during construction. The contractor will flag traffic so that one side of the roadway can be excavated. Steel plates will be placed across the open trench while the other side is excavated. This will allow the road to remain open rather than require a detour. In some instances, it may be necessary to detour or temporarily close certain facilities. When it is necessary to do so, these activities will be planned to avoid peak traffic hours and will require approval by the jurisdictional engineer.

It is anticipated that neither the operation nor maintenance of the pipeline will generate a significant amount of traffic. Impacts on transportation facilities after construction will be negligible, with most impacts associated with the distribution center at Kittitas.

Table 5.2-1 is a list of roadways that will be affected by the construction of the pipeline. Most of these roadways will be crossed by the pipeline. The Level of Service (LOS) categories for unsignalized intersections are defined below:

Level of Service A	Operation with reserve capacity greater than 400 passenger cars per hour; little or no delay.
Level of Service B	Operation with reserve capacity of 300-399 passenger cars per hour; short traffic delays.
Level of Service C	Operation with reserve capacity of 200-299 passenger cars per hour; average traffic delay.
Level of Service D	Operation with reserve capacity of 100-199 passenger cars per hour; long traffic delay.
Level of Service E	Operation with reserve capacity of 0-99 passenger cars per hour; long traffic delay.
Level of Service F	Operation where demand volume exceeds capacity of lane; causing extreme delays and queuing.

TABLE 5.2-1
ROADWAYS CROSSED OR PARALLELED BY PIPELINE CORRIDOR[(a)]
AND THEIR AVERAGE DAILY TRAFFIC VOLUMES

Roadway	ADT Volume (existing)	V/C Ratio (existing)	LOS (existing)	Location of ADT Volume	Construction Method
Snohomish County					
46th Avenue SE	-			-	Trench
Maltby Road (SR 524)	7900	.36		East of 43rd Avenue SE	Jack and bore
Little Bear Creek Rd	1,350	.06	A	North of SR 524	Jack and bore
59th Avenue SE	-			-	Trench
State Route 9	17,500	.49	D	North of SR 524	Jack and bore

TABLE 5.2-1 (CONTINUED)
ROADWAYS CROSSED OR PARALLELED BY PIPELINE CORRIDOR[(a)]
AND THEIR AVERAGE DAILY TRAFFIC VOLUMES

Roadway	ADT Volume (existing)	V/C Ratio (existing)	LOS (existing)	Location of ADT Volume	Construction Method
86th Avenue SE	-			-	Trench
Broadway Road	950	.04	A	North of SR 524	Trench
Yew Way	-			-	Trench
SR 522	18,500	.51	D	North of SR 524	Jack and bore
95th Avenue SE	-			-	Trench
106th Avenue SE	-			-	Trench
Echo Lake Road	6,300	.29	B	South of SR 522	Trench
121st Avenue SE	-			-	Trench
Welch Road	450	.02	A	West of High Bridge Road	Trench
Ricci Road	-			-	Trench
161st Avenue SE	-			-	Trench
High Bridge Road	1,300	.06	A	South of Crescent Lk Road	Trench
State Route 203	6,500	.18	A	North of High Rock Road	Jack and bore
High Rock Road	-			-	Trench
Lake Fontal Road	350	.02	A	North of Cherry Valley Road	Trench
Kayak Road	-			-	Paralleled
King County					
NE 200th Street	-			-	Trench
NE 185th Place	-			-	Trench
Cherry Valley Road	2,400	.11	A	West of 318th Way	Trench
NE 144th Street	-			-	Trench
NE 141st Street	-			-	Trench
NE 139th Street	-			-	Trench
322nd Avenue NE	-			-	Trench
Kelly Road	2,200	.10	A	North of Big Rock Road	Trench
Lake Joy Road	-			-	Trench
Tolt River Road	-			-	Trench
E. Griffith Creek Road	-			-	Trench
Tokul Road	750	.03	A	East of SR 202	Paralleled

TABLE 5.2-1 (CONTINUED)
ROADWAYS CROSSED OR PARALLELED BY PIPELINE CORRIDOR[(a)]
AND THEIR AVERAGE DAILY TRAFFIC VOLUMES

Roadway	ADT Volume (existing)	V/C Ratio (existing)	LOS (existing)	Location of ADT Volume	Construction Method
SE 53rd Street	-			-	Paralleled
396th Dr. SE	1,225	.06	A	North of Reinig Road	Paralleled and in Road
Reinig Road	2,575	.12	A	West of 396th Dr SE	Trench
Main Avenue	-			-	Trench
Ballarat Avenue	-			-	Trench
SE 120th Street	-			-	Trench
Mt. Si Road	2,950	.14	A	North of North Bend Way	Trench
North Bend Way	2,775	.13	A	West of 468th Ave SE	Trench
SE Tanner Road	-			-	Trench
Interstate 90	28,000	.25	A	West of Edgewick Road	Under I-90 on Cedar Falls Trail
SE 145th Street	-			-	Trench
SE Edgewick Road	1,350	.06	A	South of I-90	Longitudinal Trench
Homestead Valley Rd	-			-	Paralleled and trench crossing
Tinkham Road	-			-	Paralleled and trench crossing
Kittitas County					
Stampede Pass Road	-			-	Trench
Hyak Driveway	-			-	Trench
Cabin Creek Road (3)	123	.01	A	West of Railroad Street	Trench
Little Creek Road	-			-	Trench
Woode & Steele Road	25	.001	A	South of West Side Road	Trench
Ridge Road	-			-	Trench
Markovich Road	25	.001	A	South of Upper Peon Point Road	Trench
Casassa Road	50	.002	A	South of Upper Peon Point Road	Trench
Interstate 90	19,000	0.25	A	West of SR 10 Interchange	Jack and bore

TABLE 5.2-1 (CONTINUED)
ROADWAYS CROSSED OR PARALLELED BY PIPELINE CORRIDOR[(a)]
AND THEIR AVERAGE DAILY TRAFFIC VOLUMES

Roadway	ADT Volume (existing)	V/C Ratio (existing)	LOS (existing)	Location of ADT Volume	Construction Method
Thorpe Prairie Road	263	.01	A	East of the City of Teanaway	Trench
State Route 10	1,400	.05	A	East of the City of Teanaway	Jack and bore
Hayward Road	-			-	Trench
U.S. 97	2,100	.07	A	South of SR 970	Jack and bore
Reecer Creek Road	151	.007	A	North of Smithson Road	Trench
Robbins Road	-			-	Trench
Smithson Road	66	.003	A	East of Reecer Creek Road	Trench
Robbins Road	50	.002	A	West of Reecer Creek Road	Trench
Tipton Road	56	.002	A	West of Look Road	Trench
Look Road	300	.01	A	North of Tipton Road	Trench
Wilson Creek Road	1,021	.05	A	North of Brick Mill Road	Trench
Brick Mill Road	443	.02	A	East of Wilson Creek Road	Trench
Lyons Road	400	.02	A	East of Wilson Creek Road	Trench
Game Farm Road	175	.008	A	East of Wilson Creek Road	Trench
Vantage Highway	3,076	.14	A	West of Fairview Road	Jack and bore
Kittitas Highway	250	.01	A	West of Fairview Road	Jack and bore
Cleamon Road	750	.03	A	North of I-90 Interchange	Trench
Hemingston Road	50	.002	A	South of Parke Creek Road	Trench
Prater Road	197	.009	A	at I-90	Jack and bore
Stevens Road	87	.004	A	at I-90	Trench
Interstate 90	10,000	.13	A	West of Huntzinger Road	Jack and bore
Huntzinger Road	191	.009	A	at Wanapum Dam	Paralleled
Grant County					
SR 243	2,300	.11	A	North of Wanapum Dam Road	Jack and bore
Beverly-Burke Road	600	.03	A	East of Red Rock-Coulee Road	Jack and bore
"K" SW Road	-			-	Trench
"J" SW Road	100	.005	A	at 14 SW Road	Trench
"I" SW Road	100	.005	A	at 14 SW Road	Trench
14 SW Road	400	.02	A	at "E" SW Road	Paralleled

TABLE 5.2-1 (CONTINUED)
ROADWAYS CROSSED OR PARALLELED BY PIPELINE CORRIDOR[(a)]
AND THEIR AVERAGE DAILY TRAFFIC VOLUMES

Roadway	ADT Volume (existing)	V/C Ratio (existing)	LOS (existing)	Location of ADT Volume	Construction Method
"F" SW Road	-			-	Trench
"E" SW Road	400	.02	A	at SR 26	Trench
State Route 26	2,500	.08	A	at SR 262	Jack and bore
"A" SE Road	-			-	Trench
"B" SE Road	-			-	Trench
"C" SE Road	25	.001	A	at SR 26	Trench
Adams County					
State Route 26	2500	.08	A	-	Jack and bore
Gillis Road	-	.005	A	-	Trench
Kuhn Road	100	.005	A	at O'Brien Road	Trench
McKinley Road	-			-	Paralleled
Franklin County					
State Route 24	1,000	.03	A	East of "E" SW Road	Jack and bore
Mound Road	-			-	Paralleled
Rangeview Road	-			-	Trench
Hendricks Road	156	.007	A	West of Sagehill Road	Paralleled
Sagehill Road	1,671	.08	A	North of Hendricks Road	Jack and bore
County Road 170	269	.01	A	West of Glade North Road	Jack and bore
Sheffield Road	-			-	Trench
West Klamath Road	-			-	Trench
Glade North Road	1,907	.09	A	North of Russell Road	Jack and bore
Russel Road	-			-	Trench
Ironwood Road	-			-	Trench
Ringold Road	477	.02	A	East of Taylor Flats Road	Trench
Glade North Road	1,947	.09	A	South of Ringold Road	Jack and bore
Fircrest Road	-			-	Trench
Eltopia West Road	-			-	Trench
Glade North Road	2,129	.10	A	South of Eltopia West Road	Jack and bore
Fir Road	-			-	Trench

TABLE 5.2-1 (CONTINUED)
ROADWAYS CROSSED OR PARALLELED BY PIPELINE CORRIDOR[(a)]
AND THEIR AVERAGE DAILY TRAFFIC VOLUMES

Roadway	ADT Volume (existing)	V/C Ratio (existing)	LOS (existing)	Location of ADT Volume	Construction Method
Elm Road	-			-	Trench
Dogwood Road	-			-	Trench
Cedar Road	-			-	Trench
West Sagemoor Road	-			-	Trench
Glade North Road	2,995	.14	A	South of West Sagemoor Road	Jack and bore
Birch Road	-			-	Trench
Alder Road	-			-	Trench
Selph Landing Road	616	.03	A	North of West Vineyard Road	Trench
West Vineyard Road	-			-	Trench
US 395	8,800	.29	A	South of West Vineyard Road	Jack and bore
E. Foster Wells Road	-			-	Trench
Pasco - Kahlotus Road	2,152	.10	A	West of US 12	Trench
US 12	14,850	.25	A	At Snake River Bridge	Jack and bore
Tank Farm Road	-			-	Trench

(a) For purposes of calculating the V/C ratios, it was assume that the peak hour factor was 12% and that the per lane capacity was 1300 for all county roads, 1800 for state highways other than interstate for which the capacity was 1900.

Table 5.2-1 presents the Average Daily Traffic volumes for those roads for which such data is available from the various county public works departments and WSDOT. Based on conversations with county public works staff, those roads without current data ADT's are assumed to be low (generally less than 500 ADT). Daily counts as low as 25 are shown. As a percentage of the existing counts, the construction traffic forecasts of 60 to 70 vehicles, per day, would range from relatively insignificant as in the case of I-90 (28,000 ADT at Edgewick Road or 0.25%) to a significant 280% at three locations in Kittitas and Grant Counties where the existing ADT is 25.

However this probably does not represent the most ideal method of measuring the impacts of the additional construction traffic. When viewed as the relationship of volume to capacity all the numbers become relatively insignificant. Volume to Capacity ratios are based on peak hour volumes (peak hour factors are unknown for most county roads however, these factors normally range between 10 and 12 %).

I-90 at Edgewick Road the peak hour volume is assumed to be 3360 (using a factor of 12%) vehicles

combined both directions. At this location there are three eastbound and three westbound lanes which would have a total capacity of 11,400. The existing V/C ratio therefore is approximately .2947 the addition of 8 peak hour construction vehicles would increase the V/C ratio to .2954. For county roads with existing ADT's of 25 the peak hour volumes is 3 (using the 12% factor) on a two lane roadway. The per lane capacity would be somewhat less than that of I-90 and for this calculation is assumed to be 1300. Therefore the existing V/C ratio is .001 which would increase to .028 during construction. All of these numbers would result in the Level of Service being A for both existing and during construction conditions.

Expected Traffic Volumes During Construction

Construction of the pipeline will occur in three locations, called "spreads", simultaneously. Within each spread there will be three main areas where traffic will be generated by the construction. These areas include: (1) pipe staging areas, (2) construction yards, and (3) construction sites. Each of these areas is discussed below.

Pipe Staging Areas

For each spread, two or three locations in the vicinity of the proposed pipeline corridor will be selected as pipe staging areas. These areas are places where the pipe will be unloaded from either railcars or ships/barges and temporarily stored while they await distribution (stringing) along the pipeline right-of-way. Each area will be located based on the availability of existing rail lines, the availability of land to store the pipe, the proximity of an improved highway, and its location in relation to the construction site.

Shipment by Rail: Pipe shipped by rail will be unloaded by crane and forklift and will be stacked on earthen berms at a site adjacent to the rail siding. The traffic associated with the unloading of these pipes will be minimal, as only crane and forklift operators will be needed for this task. It is estimated that a crew of 6 to 8 operators will be required to unload the railcars. Therefore, assuming that each operator will arrive at and leave the site in a separate vehicle, the traffic volume will be limited to approximately 12 to 16 total trips per day. The operators will arrive in the morning and depart at the end of the work shift or when all the pipe has been off-loaded.

In order to distribute pipe along the pipeline right-of-way, trucks will visit the staging area and haul away approximately 20 sections of pipe at a time. It is estimated that the distribution of pipes will take approximately 3 weeks. It is calculated that the truck traffic volume to distribute the pipes will range from 15 to 25 trucks, or a total of 30 to 50 total trips, per day.

Shipment by Ship or Barge: Pipe shipped by ship/barge will also be unloaded by crane and forklift and stored at a nearby pipe staging area. It is assumed that the barging company will unload the pipes from the barge and place them in the staging area. Consequently, there will be no additional traffic generated with

unloading of the pipes. It is possible that an inspector will visit the dock but this would generate only 1 or 2 round trips per day.

When the pipes are ready to be distributed, trucks will visit the staging area and haul pipes to the construction site. Because the travel distance will be greater from the staging area to the construction site, it is assumed that more trucks will be needed. However, since the trucks are traveling greater distances it is estimated that 15 to 25 trucks or a total of 30 to 50 trips per day will also be required for this method of shipment.

Construction Yards

The construction yards will be in areas approximately 10 to 20 acres in size. These yards will be used by the contractor to park the office trailers, storage trailers and fuel tanks. They will also be used as an assembly point for workers to meet prior to proceeding to the pipeline. Construction workers will drive vehicles to the construction yards from which most of the workers will be transported to the construction site(s) by bus. Depending on the availability of parking, buses may also pick up workers at offsite park-and-ride locations.

There will be a maximum of 375 workers per spread. There will be three spreads working on the pipeline at different segments of the job. One spread will be working in both western and eastern Washington from the beginning of the pipeline in Maltby to a point near Snoqualmie and from a point near Easton to Kittitas. The second spread, which will be smaller and require only 161 workers, will generally work in the mountains from Snoqualmie to Easton. The third spread will concentrate their efforts in eastern Washington from Kittitas to Pasco.

It is anticipated that construction yards will periodically be moved to remain relatively near to the actual work site as the pipeline construction progresses. The workers in each spread will either carpool or be bused from their living quarters or park-and-ride lots to the construction yard, or will drive their vehicles to construction yards. The Spread 1 construction crew, in western Washington, will likely live in one location and travel to the construction yard, while the eastern Washington workers likely temporarily locate in Pasco, Moses Lake/Othello, and Ellensburg. These workers will live in temporary housing such as apartments or motels and move to the next city as the pipeline construction progresses. Workers for Spread 2 are somewhat more restricted regarding lodging. There are motels and some apartments in North Bend and there are motels at Snoqualmie Pass, Easton, and Cle Elum.

Traffic volumes associated with the construction yard activities will consist of approximately 100 to 150 vehicles arriving at the construction yard in the morning and leaving in the evening. These 200 to 300 total trips will be construction worker trips. In addition, the estimated 30 to 35 welders that will be required for Spreads 1 and 3 and the 10 to 15 required for Spread 2 will travel to the construction yard in the morning

to obtain materials and then will proceed in their own vehicles to the job site. During the day, the traffic volumes in and out of the construction yard will be minimal. It is anticipated that supply trucks will arrive to deliver materials and supplies throughout the day.

Pipeline Construction

Buses will transport the workers from the construction yard(s) to the pipeline. It is estimated that seven or eight buses per spread, with a capacity of 44 passengers, will be needed. Welders will drive their welding trucks to the pipeline and then drive home in the evening. The welders will follow the construction crews as they progress along the pipeline. Trucks required for maintaining the equipment such as grease trucks, mechanics trucks, fuel trucks, as well as trucks needed for clearing, seeding, watering, mulching, etc. will be driven to the pipeline from the construction yard. They will generally return to the yard at the end of the day. Equipment needed to construct the pipeline such as bulldozers, skidders, pipelayers, backhoes, etc. will generally stay along the right-of-way and will not be driven back to the construction yard. Security personnel will patrol the job site during the non-work hours to assure that the operation remains safe. This will likely add two to three vehicles per spread to the anticipated daily traffic.

For Spreads 1 and 3, it is estimated that approximately 60 to 70 vehicles, including buses and trucks, will be driven to the pipeline per day. Forty to 50 per day will be driven to Spread 2. The buses will return to the construction yard after unloading the workers and return to the pipeline at the end of the work shift.

Pump Station Construction

Construction of each pump station will take an additional 20 workers approximately 45 to 60 days to complete construction. Traffic volume to the pump station site would be minor, with approximately 10 to 15 vehicles driving to and from the site. In addition to worker vehicles there would be occasional deliveries of construction materials by truck. The largest deliveries would be the electric pumps and associated equipment, other deliveries would include pipes, valves, concrete, and building materials. All of the proposed sites are larger than one acre and have sufficient space for parking and construction material laydown. All sites have existing access and no new roads or upgrading of roads would be required.

Kittitas Terminal Construction

At its peak, construction of the Kittitas Terminal will require approximately 30 construction workers for the tanks and 25 workers for other facilities such as the truck rack and office/warehouse. Most of these workers will be driving to and parking at the site. Access to the site is via I-90 and Badger Pocket Road. Current traffic volumes are low (see Table 5.2-1), and there will be no obstructions to traffic flow. There will be significant truck traffic making deliveries to the site, but since the current traffic volume is low, it is not expected to have an impact on local traffic. The site is large enough to accommodate anticipated

parking and construction material laydown needs. In addition the site is located within one-half mile of I-90 in a rural part of Kittitas County with little in the way of traffic generators. Circulation of construction related traffic to the site will have no impact to traffic utilizing I-90 and the associated ramps at the interchange.

For the existing conditions on Badger Pocket Road (Cleamon Road), the ADT is 750 combined volume for both directions on the two lane road. The forecast volume associated with construction is 30 vehicles per day for an increase of 4%. Again using a peak hour factor of 12%, the volume for the one hour period is 90 on a roadway with a capacity of approximately 2600. Therefore, the existing volume to capacity ratio is 0.035 which would increase to 0.042 during construction based on 20 of the 30 daily arriving during the peak period.

Access Routes to the Construction Site

Access to the pipeline construction sites will be accomplished by using existing federal, state and county roadways, private roads, logging roads, Forest Service roads, and existing maintenance roads. Neither construction nor operation of the pipeline will require new roads or improvements to existing roads.

Pipeline workers will use federal, state or county roads nearest the pipeline section being constructed for access. The list of roadways provided in the Appendix indicates the many different roadways that will be used for access.

Expected Traffic Volumes during Normal Operation

It is estimated that approximately 60 tanker trucks per day currently cross the Cascade Mountains via Interstate 90 or Highway 2 transporting gasoline products from the Seattle-Tacoma area to central Washington. This traffic is expected to be eliminated by the operation of the proposed pipeline.

The number of tanker trucks crossing the Cascade Mountains is a projection based on the estimated amount of fuel transported per day by truck divided by the amount of fuel a truck can carry. OPL estimates, based on information obtained from Energy Analysts International, Inc., that 350,000-420,000 gallons of refined petroleum product is being transported daily by tanker truck (EAI, 1997). There is no way to accurately calculate this total amount, as the product is transported by a number of independent shippers. A single tanker truck holds 5,000 gallons, and a tandem truck holds 10,000 gallons. We assumed 7,000 gallons as the average. To obtain the maximum number of tanker trucks, we divided 420,000 gallons by 7,000 gallons per truck, which results in 60 tanker trucks per day.

There will be three areas where traffic will be generated by the operation of the pipeline. These areas include:

- Pump Stations
- Kittitas Terminal
- Pipeline

Pump Stations

Operation and maintenance personnel will visit the pump stations up to once daily. The pump stations will be located in easily accessible locations close to improved highways. It is estimated that traffic generated for maintenance of each pump station will total one visit, or two total trips, per day.

Kittitas Terminal

A petroleum product storage and distribution facility is planned south of Kittitas, Washington. This facility will be located in the northeast quadrant of the Badger Pocket Road and the I-90 interchange (Exit #115). The distribution facility will have two truck bays with a maximum filling capacity of 3 trucks per hour per bay. The expected daily usage is 90 trucks, or about 180 total trips, primarily between the hours of 5:00 a.m. and 7:00 p.m. Drivers will have access to the facility 24 hours per day through the use of a card key system.

Four employees will be stationed at the distribution facility. Two will be stationed at the facility and will work a normal shift at the site. The other two employees will be pipeline maintenance personnel who will arrive and depart the facility once or twice per day.

Pipeline

Remote valve sites will have occasional maintenance requirements. It is anticipated that each valve site will be visited a minimum of two times per year.

Vegetation trimming along the right-of-way will be required on an intermittent basis. It is anticipated that this would occur once or twice per year. Traffic generated for maintenance of the pipeline will be insignificant at any one location, totaling less than one round trip per week.

Anticipated Maintenance Access

No new access routes will be constructed to the pipeline corridor for construction, operation or maintenance. To gain access to the pipeline, maintenance personnel will utilize existing roads nearest the pipeline section that requires maintenance. Individual easements, including both public and private easements, will specify how access to the pipeline for maintenance will be permitted.

Consistency with Local Transportation Comprehensive Plans

Counties and cities that have a transportation element in their comprehensive plans are listed below.

- Snohomish County (Snohomish County GMA Comprehensive Plan, Element 7)
- King County (1994 King County Comprehensive Plan, Chapter 9)
- City of Snohomish (Snoqualmie Vicinity Comprehensive Plan 1994, Element 6)
- City of North Bend (Comprehensive Plan 1994, Chapter 4)
- Kittitas County (Comprehensive Plan 1993, Section V)
- Grant County (Comprehensive Plan 1977, Transportation Element)
- Adams County (Comprehensive Plan 1966, Part 3)
- Franklin County (Comprehensive Plan 1995, Transportation Element)
- City of Pasco (Comprehensive Plan 1995, Chapter 7)

These comprehensive plans refer to the development of transportation systems in the context of the existing transportation system and sets goals and objectives for development of the transportation system within their jurisdiction in the context of the existing transportation system, i.e., roads and railways. Pipelines are considered as a "utility". As such the transportation elements of the comprehensive plans would be applied only to the construction traffic, i.e., movement of people, equipment and materials during the construction phase of the project, or to the placement of the pipeline within transportation corridors. The transport of people, equipment and materials will all be done using existing roads. No new roads will be developed, nor new access required to principal or minor arterials. The following is a discussion of the transportation element of each plan.

Snohomish County

Element 7 of the Comprehensive Plan is the Transportation Element. The purpose is to encourage efficient multimodal transportation systems that are based on regional priorities and coordination with county and city comprehensive plans. Element 7 contains 10 goals.

Goal TR1 Develop transportation systems that complement the land use element of the

county comprehensive plan.

Goal TR 2 Provide public transportation services that are enhanced by the land use element of the county comprehensive plan.

Goal TR 3 Improve nonmotorized transportation facilities and services.

Goal TR 4 Provide transportation services that enhance the health, safety and welfare of Snohomish County.

Goal TR 5 Design transportation systems that are efficient in providing adopted levels of service.

Goal TR 6 Implement transportation improvements that have positive or minimal adverse impacts on the natural environment, air quality, water quality and energy consumption.

Goal TR 7 Prioritize and finance transportation improvements for the greatest public benefit.

Goal TR 8 Plan, develop, and maintain transportation systems through intergovernmental coordination.

Goal TR 9 Enhance the movement of goods, services, employees, and customers.

Goals TR 10 Development transportation systems that enhance the economic competitiveness of the county, Puget Sound region, and state.

Goal TR1 would not apply as the project construction will not require the development of any new transportation systems. Goal TR2 would not apply as the project construction will not require the development of public transportation services. Goal TR 3 relates to the development of bikeways and walkways to ensure adequate pedestrian access and bicycle paths. The proposed project will utilize an existing electrical power transmission line within Snohomish County. No existing pedestrian walkways or bikeways will be impacted. Goals TR 4 is intended to provide for services that enhance the mobility of all citizens. This goal would not apply to the project's construction. Goal TR 5 would not apply as the project will not include the development of new transportation systems.

Goals TR 6, TR 7, TR 8, and TR 10 would not apply as the project will not include the design, implementation or maintenance of transportation improvements. Goal TR 9 relates to the

preparation of congestion management solutions, ensuring the efficient movement and access of freight vehicles to/from designated centers, and the preservation of railroad rights-of-way for alternative uses (i.e., recreation and transportation) when continued rail service is not practicable. The construction traffic will not impact the movement of goods, services, employees and customers.

King County

Chapter 9 of the King County Comprehensive Plan is the Transportation Element. The element includes 8 general policies relating to: mobility choices; maintaining an inventory of transportation facilities; the use of travel forecasts in development of facility and strategy needs; the identification of improvements and strategies needed to carry out the land use vision and to meet the level-of-service requirements for transportation; the development of a long-range financial component; the establishment of a Concurrency Management System to ensure that transportation improvements needed to support new development are completed within a 6-year timeframe; the coordination of all elements of the transportation system with the cities in and abutting King County, the adjoining counties, and other regional transportation agencies; and the monitoring, evaluation and revision of the Transportation Chapter periodically to endure its implementation. These 8 general policies are followed by subpolicies intended to carry out each of the general policies.

As the project's construction will not include the construction of any new transportation systems, nor cause any long-term impacts to the existing transportation system, the project complies with the transportation element of the King County Comprehensive Plan.

City of Snoqualmie

The Transportation Element of the Snoqualmie Vicinity Comprehensive Plan is found in Chapter 6. The general goal is to *Provide a safe and balanced multimodal transportation network which supports the land use element, maintains community character, and is coordinated and consistent with regional transportation programs.* The goal is followed by objectives: to provide transportation mobility choices; to establish level of service standards for principal, minor and collector arterials and intersections that will provide a cost effective and safe transportation system and encourage the use of alternative travel modes to the single occupant vehicle; to develop and maintain a cost effective street system to serve the existing and future population; to integrate nonmotorized transportation through the City and ensure linkages to regional nonmotorized facilities and networks; to encourage the use of transit, high occupancy vehicles, and other travel modes to reduce the need for street expansion projects; to develop an adequate and equitable funding program to implement transportation improvements concurrently with anticipated growth; and to work in cooperation with WSDOT, PSRG, King County, North Bend, school districts and

other agencies to develop and fund a comprehensive and continuous multimodal transportation system.

The construction phase of the project will include the use of high occupancy vehicles to transport workers from construction yards to the job site. As the project will not include the construction of new transportation systems, the remaining objectives do not apply. The project complies with the Transportation Element of the Snoqualmie Vicinity Comprehensive Plan.

City of North Bend

The Transportation Plan Element of the City of North Bend's Comprehensive Plan is included as Chapter 4 of the Plan. The purpose of the element is to: guide the City of North Bend for transportation improvements; integrate improvements with the regional transportation system; implement the Land Use Element of the City's Comprehensive Plan; develop a multi-modal transportation system with appropriate demand management strategies; and to ensure a financially feasible plan with a multi-year funding schedule. There are three goals:

T-Goal 1 Develop a transportation system that preserves and enhances the livability of North Bend.

T-Goal 2 Create a pedestrian-friendly environment through North Bend that integrates cultural, historic, recreational, and economic facilities.

T-Goal 3 Design a transportation system which supports and enhances the entire community.

The project will not include the need for the development of a transportation system, and therefore Goals 1 and 3, and the policies do not apply. T-Goal 2 includes 11 policies relating to the development of pedestrian and bikeway facilities. There are no policies which relate to the temporary use of, or closure of, existing trails. The pipeline is proposed to be located on the Cedar Falls Trail which goes through the City of North Bend. During construction there may be a need to temporarily close or detour the trail. As the pipeline construction progresses at the rate of 10,000 feet per day, the temporary closures or detours would be expected to last less than one day. Following construction, the existing trail will be restored. The project would be in compliance with the Transportation Element of the North Bend Comprehensive Plan.

Kittitas County

Chapter 4 of the Kittitas County Comprehensive Plan is the Transportation Element. There are 7 countywide planning policies: general transportation planning; Growth Management compliance; consistency and compatibility of transportation plans with comprehensive plans, and the cooperation in the analysis of proposed major regional industrial, retail/commercial, recreation or residential developments that may impact the transportation system; public participation and prioritization in the development of transportation plans; the promotion of a coordinated and efficient multi-modal transportation system including alternative forms of transportation for the movement of goods and people; the requirements that transportation plans will, to the maximum extend practical, provide a safe and environmentally sound system which responds to the needs of the community; and a concurrency requirement that transportation improvements which are necessary to maintain the identified level of service standards be implemented concurrent with new developments.

The Transportation Element includes 27 goals designed to support the countywide planning policies. Goals T1.0 through T7.0 relate to the development and maintenance of a multi-modal transportation and arterials system. The project will not cause the development of new transportation system. There are some short segments of the corridor within Kittitas County in the vicinity of Snoqualmie Pass where the pipeline will be located within existing roadway corridors. The pipeline will be below ground and will not interfere with the use of the right-of-way for roadway purposes. During construction, there may be short (less than one day) detours or closures that may be required. Any such detours or closures will be planned in advance with Kittitas County Public Works staff. After completion of the construction, the roadway will be restored.

Goals T8.0 through T12.0 are intended to guide the development of the transportation system, to be consistent with local land use plans, to ensure the support of new development, to provide a safe, reliable transportation system, to reflect the character of the surrounding neighborhood in the transportation system, to protect the environment, and to support economic growth and vitality. The project would not require the development of new transportation systems, nor would it cause any long-term impacts on the existing transportation system.

Goals T13.0 through T18.0 describe level of service and concurrency goals. The goals include the development and implementation of LOS standards which can identify existing system deficiencies and measure the impacts of new developments; to ensure the maintenance of adopted level of service standards, to develop LOS standards that correspond to land development goals, to encourage land use development patterns which reduce roadway capacity demands; and to develop a variety of performance measures to evaluate the transportation system. None of these goals are

applicable to the proposed project.

Goals T19.0 through T24.0 describe the goals for financing transportation improvements. The project would not cause the need for new transportation systems, and these goals are not applicable to the project.

Goals T25.0 through T27.0 require intergovernmental coordination and public participation in the planning, construction and maintenance of transportation systems. The project would not cause the need for new transportation systems, and these goals are not applicable to the project.

The proposed project would be consistent with the applicable policies of the Transportation Element of Kittitas County's Comprehensive Plan.

Grant County

According to Larry Angell, Grant County Planning Director, the existing Grant County Comprehensive Plan was written in the mid-1970s and is currently outdated. The county is currently preparing a new comprehensive plan. In the interim, the Grant County Zoning Ordinance is the primary tool used in land use decision making.

Adams County

According to Dee Caputo, Planning Director for Adams County, the current Adams County Comprehensive Plan dates from 1966. The county is currently preparing a new comprehensive plan. In the interim, the Adams County Zoning Ordinance is the primary tool used in land use decision making. As of the date of this revised application (April, 1998), a plan still had not adopted.

Franklin County

The Transportation Element of the Franklin County Comprehensive Plan (1995) begins on page 143. The stated county policy is to *Encourage efficient multi-modal transportation systems that are based on regional priorities and coordinated with County and city Comprehensive Plans*, and to maintain active County-city participation in the Regional Transportation Policy Organization in order to facilitate intergovernmental coordination in planning regional transportation facilities to serve essential public facilities. The element includes 7 objectives: recognition of transit and ridesharing as important elements of the transportation system; encouraging the extension of Ben Franklin Transit to new areas; coordination with social service agencies to effectively serve social service clients by transit; meet the needs of bicyclists,

pedestrians and equestrians traveling on roads and to encourage the provision of non-motorized facilities (sidewalks); to provide an efficient road network to provide adequate mobility for all people, goods and services; to coordinate other transportation facility and service plans with the Franklin County Transportation Plan; and to outline strategies and actions necessary to finance and implement the planned transportation improvements.

The proposed project would not require new transportation systems or the extension of transit, nor would it be placed in existing roadways or non-motorized facilities (walkways or bikeways). None of these policies are directly applicable to the project.

City of Pasco

There are 4 overall goals listed in the Transportation Goals of the City of Pasco Comprehensive Plan:

TR-1 Continue to provide and maintain an effective and convenient street system.

TR-2 Encourage efficient, alternative and multi-modal transportation systems.

TR-3 Beautify the major streets of the city.

TR-4 Provide pedestrian and vehicular communication through neighborhoods to help foster a sense of community.

There are 8 policies listed under TR-1, including: participate in the transportation activities of the Benton-Franklin Regional Council; work with other jurisdictions to plan, fund and implement multi-jurisdictional projects necessary to meet shared transportation needs; make transportation decisions consistent with the land use objectives of this plan; minimize conflicts with major traffic corridors to help assure safe and efficient movement of traffic; discourage through traffic and high speed vehicular movement in single family residential neighborhoods; provide inner-neighborhood travel connections allowing transportation disbursement by the development on interconnected network of streets, trails and other public ways while preserving neighborhood identity; provide continuity and maintain geographic and linear consistency with the rest of the community in establishing street naming and developing numbering systems for new developments; and to build streets and sidewalks in a local improvement district without interrupted or patch work rights-of-way or construction. The project would not require the construction of new roadway, nor would it be placed in existing roads or trails. None of these policies are applicable to the project.

Goal TR-2 has 5 policies: support efforts to build a train-transit interstate bus terminal; coordinate

with the transit authority in programming transit routes, transit stops, and supporting facilities which optimize user acceptance; encourage van/car pooling; encourage the greater use of bicycles and walking by providing safe and purposeful bicycle and pedestrian routes; and to encourage park-and-ride lots for bicycles and/or automobiles. None of these policies are applicable to the project.

There are 2 policies listed under TR-3: to incorporate extensive tree and landscape planting and decorative support features into all major arterial and collector streets as they are constructed; and to institute retrofit projects to build significant amount of landscaping and attractive street related facilities. The project will not create the need to build new arterials and collector streets, not to retrofit existing streets. These policies are not applicable to the project.

Under TR-4 there is one policy: to direct land development proposals to incorporate networks for motor vehicle ways and pedestrian/bicycle greenways connecting to bordering development, schools, neighborhood parks and employment centers. This policy is directed at the design of subdivisions and it not applicable to the project.

The proposed project is consistent with the goals and policies set forth in the comprehensive plans.

Impacts

Impacts associated with construction and operation of the pipeline will be minimal and primarily as a result of construction. Specifically, potential impacts will result from the trucks hauling pipe to the job sites, workers reaching the construction yards and job sites and the boring operations under state highways and federal roads coupled with the crossing of county roads.

Additional traffic volumes associated with the hauling of pipe and personnel will not affect the level of service on state roads. V/C ratios have been calculated for all roads and added to the revised Table 5.2-1 above. It should be noted that for all state highways the level of service is A except SR 524, 9 and 522 whose Levels of Service are D, D and B respectively for existing conditions. However, low volume county and federal roads in rural areas will experience a marked increase in traffic for a short period of time (normally less than two weeks for any one road). Despite the increase in traffic, these facilities will continue to operate with minimal delay.

Construction operations will be fast paced with work zone traffic impacts varying throughout the day. With this in mind the following table has be developed to present some generalized traffic data for a comparison of the traffic impacts associated with construction. For this comparison, state highways are excluded and would naturally be expected to carry substantially higher volumes than county roads in rural areas. State highway crossings will be bored or jacked thus having minimal impact on traffic flow during

construction. Construction related traffic refers to the volume of traffic at the pipeline line laydown area and considers that most of the workers will be transported to the site via bus. The number includes the bus and truck volumes needed to deliver the workers, equipment and materials to the site.

TABLE 5.2-2
TYPICAL AVERAGE DAILY TRAFFIC (ADT) FOR COUNTY ROADWAYS

County	Typical ADT	Construction Related Traffic Volumes
Snohomish	up to 1000	60 to 70
King	2000 to 3000 for county roads	60 to 70 in western county 40 to 50 in eastern county
Kittitas	less than 1000	60 to 70 in eastern county 40 to 50 in western county
Grant	less than 500	60 to 70
Adams	less than 100	60 to 70
Franklin	up to 3000	60 to 70

Short term impacts associated with trenching across a county road will be experienced. Partial or complete road closures will be required while the excavating equipment digs the trench, lays the pipe, and finally backfills the trench. Boring pits adjacent to state highways will have a minor affect on the flow of traffic; however, closures of the road will not be required. Along Tinkham, Homestead, Edgewick, High Rock, Crescent, Huntzinger, and Tokul (396) Roads, the pipeline will be located within the roadway prism. This facility will be required to be closed during the construction of the pipeline. Along other roadways such as Kuhn Road, SR 26, and Glade North Road, the pipeline will be located outside of the roadway right of way. Construction along these facilities will generally be off the roadway and will not require any closures.

Mitigation Measures

Mitigation measures that will be employed during construction include the following:

- Workers will be transported to the job site via bus and using state highways and the pipeline access road as much as possible.
- On Kuhn Road, SR 26, and Glade North Road, the pipe will be laid outside of the roadway right-of-way .
- When trenching across roads, every effort will be made to maintain one lane of traffic through the use of flaggers and steel plates over open trench areas.

- If construction is not complete during work hours, all trenches across public roads will either be backfilled to grade or heavy steel plates will be placed across the trench and the location appropriately marked with warning signs prior to the completion of the days work activities.
- Temporary closures will be planned to avoid peak travel times.
- Security patrols will be provided at each job site to assure the safety of the public and to the contractor's equipment.

There will be no impacts to traffic from operation of the pipeline, and no mitigation measures for operation are required.

5.2.2 WATERBORNE, RAIL, AND AIR TRAFFIC

Transport by Rail

Rail transport will be used only during construction and will be used to ship the pipe to pipe staging areas, which will be located near rail sidings and will serve as storage areas for the pipes prior to distribution along the pipeline. Shipment by rail will require approximately 125 railcars to be delivered over a 1 to 2 month period. Railcars would deliver pipes in shipments of 5 to 30 cars depending on the railroad company dispatcher. The following discussion describes rail transport associated with the project in eastern and western Washington.

Eastern Washington

The following description of planned rail and truck transport is based on preliminary evaluations of rail and highway facilities.

In eastern Washington, pipe staging areas will be located at rail sidings in Pasco, Royal Slope and Easton. The pipes will await further distribution by truck. From the pipe staging area near Pasco, state highways such as SR 17, SR 24, SR 26, US 12, and US 395 will be used to transport the pipe via stringing trucks. County/local roads likely to be used include but are not limited to Pasco Kahlotus Road, West Vineyard Road, Glade North Road, and Hendricks Road. In Ellensburg, trucks would deliver pipes from the pipe staging area using state routes I-90, SR 243, SR 26, US 97, and SR 10 and county/local roads such as Kuhn Road, Lower Crab Creek Road, Beverly Burke Road and Reecer Creek Road. Pipe distribution from the Easton pipe staging area would use I-90. County/local roads would include Cabin Creek Road and Upper Peon Point Road.

Existing railroad facilities are adequate for project-related needs. No additional rail access or rail facilities will need to be developed for the project. The access roads have the capacity to accommodate the trucks

delivering the pipes and thus no new access routes will be required for pipe distribution.

Western Washington

All pipe for staging in western Washington will be delivered to a site leased from the Port of Everett that is located adjacent to the Snohomish River and East Marine View Drive. This is the site previously owned by Weyerhaeuser and has been used in the past for industrial uses. The site has been cleared and is no longer in active use as an industrial site. The pipe can be delivered to the site via rail car or barge. Access to the site is via East Marine View Drive which has access directly to I-5 south to I-405 and the Thrashers Corner area. In addition East Marine View Drive has access from I-5 to Highway 2 east bound that provides access to eastern Snohomish and King County.

Transport by Water

Water transport may be required to deliver pipes in western Washington. Possible water transport methods include delivery by ship or barge to the Ports of Tacoma, Seattle, or Everett. The pipes would be stored near the docks in pipe staging areas. It is assumed that pipes shipped by water could be accommodated in one shipment. When needed, trucks will load the pipes and distribute the pipes along the pipeline in western Washington.

Port of Tacoma

If the delivery of pipe is to the Port of Tacoma, trucks would use I-5, I-405, SR 522 and SR 9 to distribute pipes in Snohomish County. As the pipeline work continues south into King County, trucks would deliver pipes using state routes I-5, SR 18 and SR 203. As the pipeline progresses past Snoqualmie, trucks would deliver pipes from the pipe staging area using state routes I-5, SR 18, and I-90. Various county and local roads will also be used to get the pipe as close to the pipeline corridor as possible. Based on an estimated 15 to 25 trucks or 30 to 50 trips per day, impacts on state highways or county roads will be minimal.

Port of Seattle

If the delivery of pipe is to the Port of Seattle the trucks would follow state routes I-90, I-405, SR 522, and SR 9 to Snohomish County. State routes I-90 and SR 203 would be used to deliver pipes south of Snohomish County and only state route I-90 would be used to deliver pipes from the pipe staging area east of Snoqualmie. County and local roads will also be used as stated in the previous paragraph. Based on an estimated 15 to 25 trucks or 30 to 50 trips per day, impacts on state highways or county roads are expected to be minimal.

Port of Everett

Delivery of pipes to the Port of Everett would change the delivery routes. Delivery trucks would use US 2, SR 9 and SR 522 to deliver pipes in Snohomish County. Trucks would deliver pipes using state highways US 2, SR 203, and SR 202 for the remaining pipeline sections. The use of county and local roads will also be required as stated previously. At some point in the pipeline construction, approximately when work reaches the Snoqualmie area, pipe transport would be via state highways SR 5, SR 405, SR 90 and SR 202.

Transport by Air

The Cross Cascade Pipeline project will not use air transport during construction or operation.

5.2.3 PARKING

Impacts

Parking for the workers will be primarily at the construction yard. It will the responsibility of the contractor to provide sufficient parking space for the workers. As stated previously, the work force will meet at the construction yard in the morning prior to being bussed to the construction site (pipeline). As many as 375 workers will be working in Spreads 1 and 3. In western and eastern Washington, the smaller Spread 2 work force will concentrate its effort in the mountains and at the Columbia River crossing.

For the most part, the 375 workers per spread will be carpooling to the construction yard, with an average of 2 to 3 workers per vehicle. After arriving at the construction yard, most of these workers will be riding the bus to the pipeline. In addition, the construction bus may be used to pick up workers at hotels or at pre-designated areas which will reduce the number of vehicles traveling to the construction yard. Some of the workers such as welders will drive their vehicles to the construction yard and then to the construction site (pipeline). Since parking will be limited along the route, only construction-related vehicles will be at the pipeline.

It should be noted that the pipeline work force will be spread over many miles of the right-of-way as the various sequential construction activities are in progress. For example, the right-of-way clearing crew will be a few miles ahead of the area being trenched and even further beyond the areas being backfilled after the pipeline has been installed. As a result, the construction related vehicles needed at the pipeline will be spread over many miles and, therefore will not be congregated at any one area along the pipeline. All construction related vehicles, whether they be welders trucks, trenching equipment or security personnel, will be parked along the alignment of the pipeline and therefore will not be parked within public rights of way of state or county roads. In order to protect sensitive areas adjacent to the pipeline construction zone, parking areas for construction vehicles will be clearly marked and enforced.

Mitigation Measures

- Most pipeline workers will be transported from the construction yard, or directly from their hotels to the job site by bus.
- Only construction-related vehicles will be allowed on the job site.
- Parking areas for construction vehicles will be clearly marked and enforced to protect sensitive areas adjacent to the pipeline construction zone.

5.2.4 MOVEMENT/CIRCULATION OF PEOPLE OR GOODS

Impacts

The movement and circulation of goods on roadways across the Cascade Mountains will be improved by the elimination of tanker truck traffic with the use of the pipeline and terminals. There will be temporary and minor delays during construction of the pipeline across roadways that are trenched. Some delay may also be experienced at bridges when the pipeline is placed along the structure. With the exception of Kayak, High Rock, Tokul, 53, 396, Edgewick, Homestead and Tinkham Roads, no roadways will be closed to traffic for more than 15 minutes at a time under normal circumstances. Generally, roadways that will be trenched for the pipeline will remain open. These roadways will have flaggers controlling traffic while one lane is being trenched. Steel plates will be placed across the trench so that traffic can resume across the open trench until the pipeline is laid. As stated previously, some facilities may be temporarily closed. However, mitigation measures will be employed to reduce the impact of these short-term closures.

Tinkham Road, located south of I-90 and east of North Bend, will be closed during construction, as the pipeline will be placed in the roadbed of this road. The duration of this closure will be limited to the actual time required to complete the pipeline installation, approximately 5 days. The roadway will be rebuilt after the pipeline is installed. Minor delays may occur on other roadways where the pipeline will be placed adjacent to the roadway. Construction vehicles working adjacent to a roadway will generally be off the travel surface of the road. During operation, the project will not have an impact on the movement or circulation of people or goods.

The route of the pipeline follows existing rights-of-way as much as possible. Approximately 96 miles of the pipeline (40 percent) is within existing rights-of-way. The majority of the existing rights-of-way being utilized are Bonneville Power Authority, U.S. Forest Service, Washington State Parks and Recreation, and Washington State Department of Transportation. Measures to restore or rehabilitate disturbed areas are addressed in Section 7.3 Initial Site Restoration Plan.

The Olympic Pipe Line Company does not control the use of barges on the Columbia River, tankers in

Puget Sound, or tanker trucks on the Interstate 5 network, and therefore can only qualify the beneficial traffic impact of the use of the pipeline on these three transportation networks.

If this project is approved, it is possible that the existing barges on the Columbia River would be used to transport other goods as the barges are currently used to transport agricultural products down river from Pasco. There would be a beneficial impact from a reduction in the risk of a petroleum product spill on the Columbia River, but may not be a change in overall barge traffic. If the project is not approved, there would be an increase in barge traffic on the Columbia River to transport refined petroleum products from the western Washington refineries to markets in eastern and central Washington.

Tankers are currently transporting refined petroleum products from the western Washington refineries to a number of locations including Alaska, off-shore, and the mouth of the Columbia River. If this project is approved, there would be an expected decrease in the number of tankers that leave the western Washington refineries and travel down the Washington coast to the mouth of the Columbia River. If this project is not approved, the number of tankers heading toward the mouth of the Columbia River would be expected to increase with a possible decrease in the number of ships heading off-shore, although the overall tanker traffic in Puget Sound may remain the same. If there are future expansions at the refineries, the overall tanker traffic would likely increase without this project.

It is estimated that 60 trucks per day are crossing the Cascade Mountains to transport refined petroleum products. These trucks are likely to be using some portion of Interstate 5 to access either Interstate 90 across Snoqualmie Pass or Highway 2 across Stevens Pass. If the project is approved, the impact of the reduction of 60 trucks per day from the Interstate 5 network would be insignificant from a traffic capacity viewpoint. However, with fewer tanker trucks traversing this mountain range there is decreased opportunity for injuries and deaths, accidents and property damage which could result from a hazardous materials spill. As volumes on both SR 2 and I-90 continue to build it is important that every opportunity be taken to reduce the numbers of vehicles attempting to make the trip. As a percentage of the total traffic, the removal of 60 trucks a day represents less than 0.3% KC verify number of the total trips on I-90 compared to an annual growth rate of 2% for total traffic. Large trucks make up 4% of the total traffic on Snoqualmie Pass or about 920 trucks per day and 8% or 345 on Stevens Pass.

If the project is not approved, there would be an increase in tanker truck traffic crossing the Cascade Mountains. Some of these trucks are likely to use the Interstate 5 system to access either I-90 or Highway 2. Given the overall traffic volumes on Interstate 5, an increase in tanker truck traffic is likely to be insignificant in the view of overall traffic capacity but could be significant in reducing hours of rad closures in the event of an accident.

Mitigation Measures

- In order to ensure safe utilization of the construction areas, pipe staging areas, construction yards, and construction sites (pipeline) will be patrolled by security personnel.

- The pipe staging areas and construction yards will be fenced.
- At the pipeline, open trenches through roadways will be covered during all non-construction hours.
- During construction, the public will generally not be allowed access to the pipeline right-of-way. Only land owners and the pipeline owner will have access to the right-of-way.
- After construction is completed, the roads will be returned to preconstruction standards unless otherwise agreed upon by the land owner or agency with jurisdiction over the road.

5.2.5 TRAFFIC HAZARDS

Impacts of Construction and Operation

In general, traffic hazards will increase only slightly as a result of increased traffic associated with the construction of the pipeline. This will be minimized by the use of buses transporting most of the workers to the construction site. Other traffic hazards may apply with the use of flaggers when trenching across roadways.

One of the more likely sources of potential hazard is the transporting of pipes along narrow county roads. In some cases, pipe distribution trucks may haul 80' long sections of pipe which will require pilot vehicles to help negotiate hills and curves in mountainous regions.

Boring pits adjacent to state highways can present a potential hazard to traffic. To minimize this potential, the pits will be set back as far as is practical from the edge of the traveled way. In addition concrete barriers will be installed to protect the work site if required for a specific site.

During operation of the pipeline, few hazards will be created. The Kittitas Terminal will be located adjacent to the I-90 westbound off-ramp at Kittitas. Due to the proximity of this facility to the I-90 interchange, a slight hazard to passing motorists will exist. However, safety precautions followed during the filling operations will minimize the safety hazard. The truck rack at the Kittitas Terminal may serve up to 90 trucks per day. However, truck use at the distribution facility will be spread out throughout the day (5:00 am to 7:00 pm) and the resulting impacts will be insignificant. The operation of the distribution facility will not create any hazards, but the increase in traffic will proportionally increase the probability of an accident.

Mitigation Measures

Mitigation measures for construction are as follows:

- State highways will be utilized as much as is practical for transporting of pipe segments from the pipe staging areas to minimize impacts on local roadways.
- Pilot vehicles will be used where necessary to assist pipe distribution trucks negotiate curves and hills in mountainous regions.
- Boring pits will be constructed as far from the traveled way as is possible and the boring sites will be protected with concrete barriers to prevent accidents if required for a specific site.

No mitigation measures are proposed for operation as no impacts are expected to occur.

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