

3.10 Public Services and Utilities

This section examines the impacts of the project on public services and utilities in the study area. These services include education, medical, fire, police, and recreation, while the utilities include electrical, energy, communications, water, sewer, stormwater, and solid waste. The Tier I FEIS examined the impacts of the proposed corridor on these public services and utilities. The Tier II NEPA process builds upon this earlier analysis with additional detail on the affected services and utilities.

3.10.1 Studies Performed and Coordination Conducted

This section incorporates information from the *Land Use/Farmland/Social-Economic Discipline Report* (Washington State Department of Transportation [WSDOT] 2004) and from utility location maps provided by utilities throughout the study area. The SR 167 Tier I FEIS was also used as a reference to ensure continuity. When needed, information was verified with personal communications. For the analysis of parks and recreation areas, Pierce County and the Cities of Fife, Milton, Puyallup, and Tacoma were contacted regarding existing and planned park sites within or adjacent to the proposed corridor.

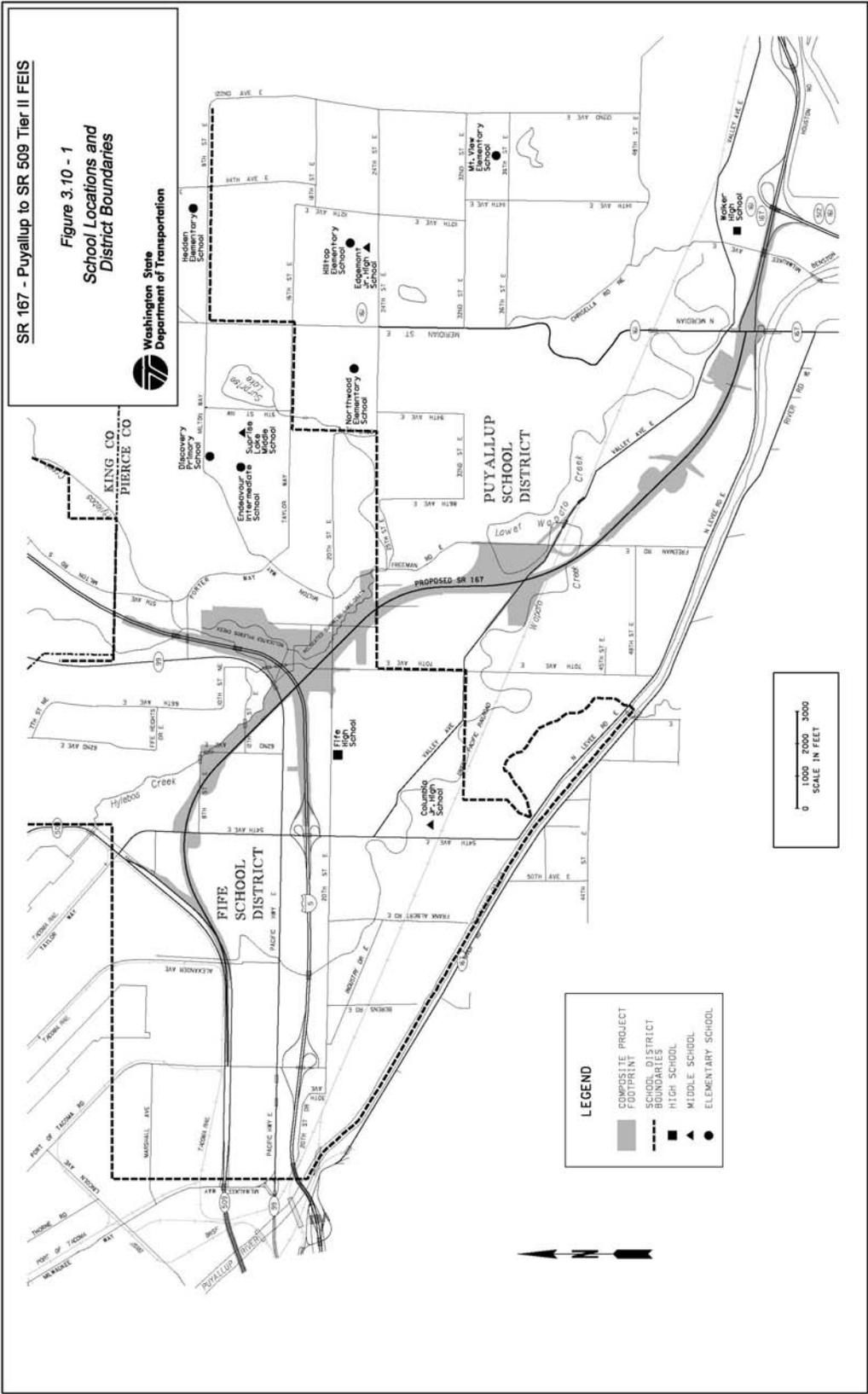
3.10.2 Affected Environment

Educational Facilities and Attendance Boundaries

Fife School District

The Fife School District serves both the Cities of Fife and Milton. Attendance boundaries for the Fife School District cover 10 square miles and extend as far south as Levee Road, to the north as far as Fife Heights, to Hedden Elementary School east of North Meridian, and as far west as the Tacoma city limits. With the opening of Columbia Junior High School in September 2003, the district has six schools in the study area with a total enrollment of 3,200 students (Figure 3.10-1).

Twelve buses travel 20 routes to provide both morning and afternoon transportation to the elementary, middle and high schools. The primary school bus routes through the Fife valley are 54th Avenue East, N. Levee Road East, 70th Avenue East, and 20th Street East. The majority of school bus trips occur on 20th Street East, as this street is the most widely used corridor connecting the eastern and western halves of the district (Jenkins 2001).



Puyallup School District

The Puyallup School District serves the Cities of Puyallup and Edgewood while sharing most of its northern boundary with the Fife School District. The district's southern boundary extends as far south as 191st Street East, as far west as Canyon Road, and as far east as the Puyallup city limits. The district has five schools located within the study area and the primary bus routes include Valley Avenue, Freeman Road East, 24th Street East, and North Meridian (Hammond 2001).

Government and Social Institutions

The only government facility located in the study area is the Fife City Hall at 5411-23rd Street East. Two social institutions are located in the study area.

1. The Fife Senior/Community Center, located at 2111-54th Avenue East, is a Red Cross meal location three times a week and provides a variety of services to the community. These services include classes, health screening, seminars and social functions. The Fife Senior/Community Center also rents out to individuals creating a revenue source for the center.
2. FISH Food Banks of Pierce County operates a food bank at 2003 54th Avenue East.

Medical Services

The Port of Tacoma Medical Clinic located on the Port of Tacoma Road and the Fife Medical Clinic located on 54th Avenue East are urgent care facilities for the study area. They provide emergency services for the port industrial area and Fife. St. Josephs Hospital in Tacoma and Good Samaritan Hospital in Puyallup are the major medical facilities that service the study area. Powers Ambulance Service provides most of the ambulance service in the study area with Shepard Ambulance Service providing occasional backup.

Fire and Police

Firefighting/Emergency Services

Most of the study area is within Pierce County's Fire District No. 10 (Figure 3.10-2). Since 1995, the Tacoma Fire Department has provided fire suppression and emergency medical services under the terms of a service agreement between Fire District No. 10 and the City of Tacoma. Within the study area, the Tacoma Fire Department maintains station No. 12 located at the intersection of 20th Street East and 54th Avenue East. Station No. 2, located in the southeast section of the study area near the 4200 block of Freeman Road East, is currently not active and has been leased to the Fife Police Department. The average response time for calls within the service area is four to six minutes (Fitzgerald 2001).

For calls involving the project area, other units are supplied from nearby stations. Pierce County Districts Nos. 8 and 11 provide limited fire suppression and emergency medical response services to the study area. District No. 8 mainly serves the community of Edgewood but occasionally provides response elsewhere, particularly along the northern sections of Valley and Freeman Roads.

The City of Milton provides police and fire service within their municipal limits. They have reciprocal inter-local agreements to provide service to unincorporated Pierce County and surrounding jurisdictions when needed.

Police

The major portion of the study area is served by the Fife Police Department. The department maintains coverage for the entire area bounded by the Fife city limits. On average, the department has four to six officers patrolling citywide. Within the Fife valley, Valley Avenue from 70th Avenue East to Freeman Road is patrolled an average of six times a day. The average response time for calls within the service area is five minutes or less (Blackburn 2001).

The Puyallup Police Department serves a small segment of the southern section of the study area. Because this section of Puyallup is relatively small and undeveloped, police patrol is light in comparison to the remainder of the city. The Milton Police department serves the City of Milton and has established an unofficial response time of three minutes for emergency calls. A small segment of the project area falls under the jurisdiction of the Pierce County Sheriff's Department's East Precinct. The Pierce County Sheriff's Department serves unincorporated Pierce County. Due to the undeveloped nature of the area, patrols are light.

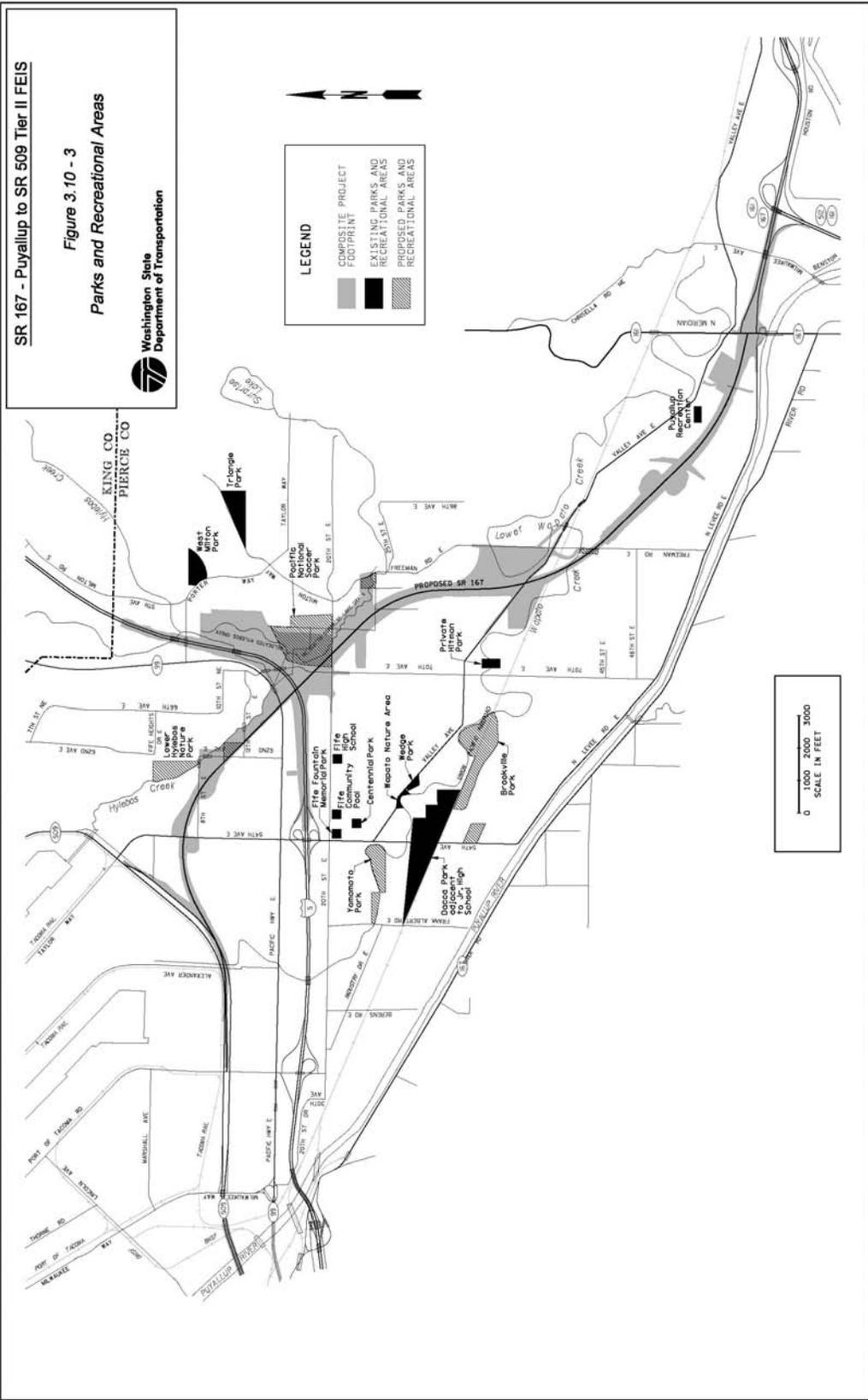
Recreation

Figure 3.10-3 illustrates the location of existing and proposed park and recreation facilities in the study area. These facilities and their uses are discussed below. The City of Fife maintains a community swimming pool located at 20th Street East and 54th Avenue East. Fife High School provides recreational opportunities for community residents during after-school hours and in the summer. In 2003, the City of Fife purchased 54 acres in the vicinity of the I-5 interchange for the purpose of developing a soccer park. The City of Milton Interurban Trail is located in the same area. WSDOT and the Federal Highway Administration (FHWA) will make every effort to minimize impacts to these properties. Fife has constructed Dacca Park, a sports park adjacent to Columbia Junior High School, on purchased farmland located at 54th Avenue East north of the Union Pacific Railroad (UPRR) tracks. Hitman Park is a private park with two softball fields located on 70th Avenue East between Valley Avenue and the UPRR tracks. Both parks are outside the project area.

The City of Puyallup operates a recreation center at 808 Valley Avenue Northwest. The center is situated on the south side of Valley Avenue adjacent to the proposed project corridor. There is no plan to further expand the facility at this time (Dannenberg 2001).

Other recreational facilities can be found at several schools within the Puyallup School District including ball fields, playgrounds, gymnasiums, and outdoor tracks.

Figure 3.10 - 3
Parks and Recreational Areas



Utilities

Electric Utilities

There are three electrical service providers for the study area. The City of Milton provides electric service within most of its municipal limits. Tacoma Power provides service north of I-5 and south of I-5 west of 70th Avenue East. Puget Sound Energy (PSE) provides service for the remaining area. Figure 3.10-4 shows the distribution of major electrical lines affected by the project.

Natural Gas and other Fuels

There are three separate companies that provide natural gas and other fuel types within the project area. McChord Pipeline Co. has a 6-inch gas line that parallels the east side of the Port of Tacoma Road (Figure 3.10-5). This gas line was located in the year 2000 for WSDOT's Port of Tacoma Road project. It is located approximately 30 feet below grade and it is not anticipated that this gas line would be disturbed for this project. Olympic Pipeline Co. maintains a 14-inch high pressure petroleum gas line within the area of the proposed SR 167 and I-5 interchange.

PSE serves most of the study area through intermediate- and high-pressure natural gas lines. PSE also has a 12-inch natural gas supply line that parallels 20th Street East and serves the Port of Tacoma and the City of Tacoma.

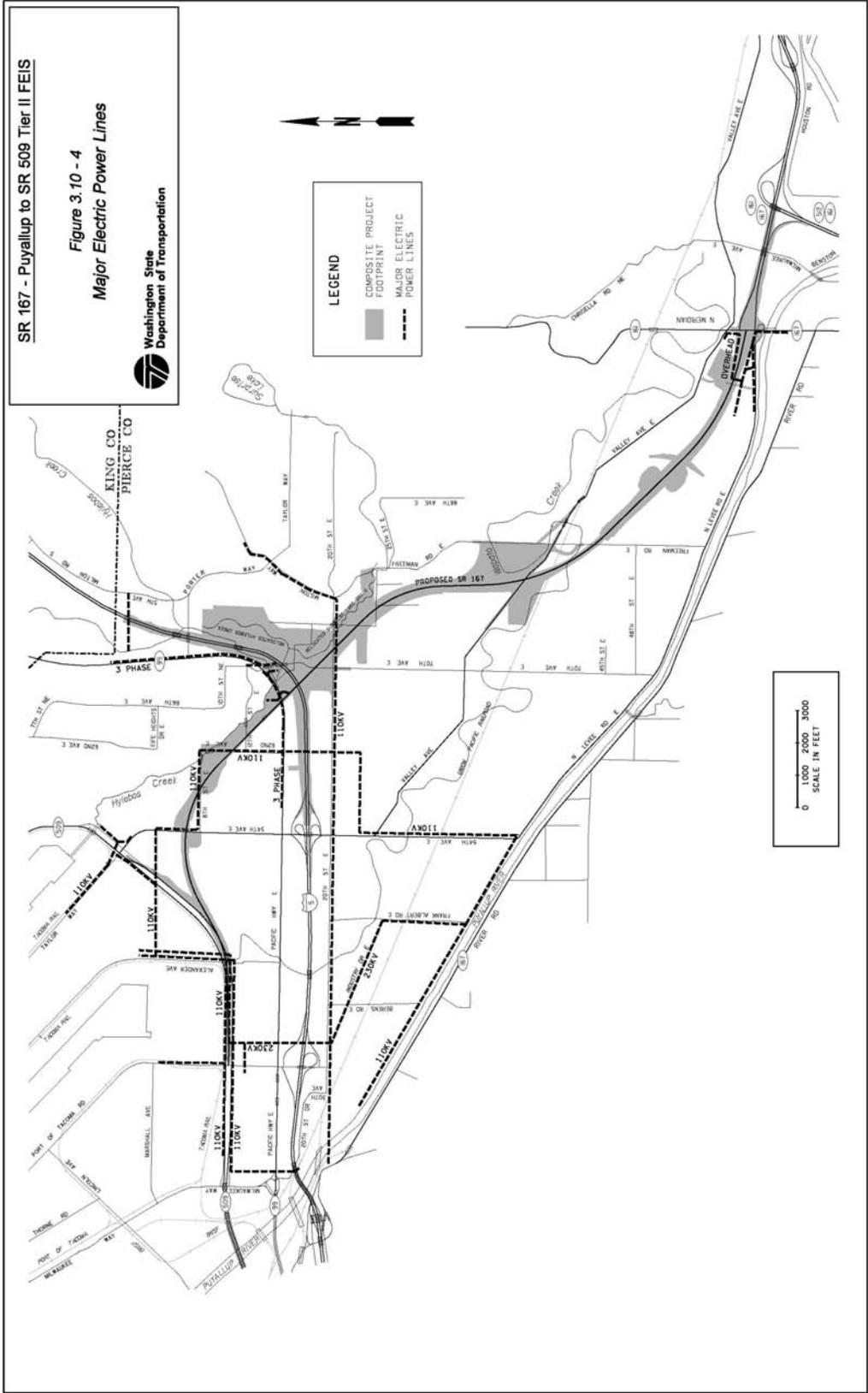
Telecommunications

QWEST provides wire line telecommunications service throughout the project area. These facilities are overhead and buried communication lines. There are buried conduits that carry feeder cables that were identified in the Tier I FEIS (Figure 3.10-6).

AT&T has a buried fiber optic line along SR 509; however, this line appears to be outside the project boundaries. At the intersection of 54th Avenue East/SR 509 and Alexander Avenue/SR 509 there are fiber optic lines owned by Tacoma Power and operated by Click! Network.

At the time of the field survey in early 2003, there were three cellular towers within the study area. Two towers were located just south of the 70th Avenue East/20th Street East intersection and the third tower was at the 45th Street East/70th Avenue East intersection.

Figure 3.10 - 4
Major Electric Power Lines



SR 167 - Puyallup to SR 509 Tier II FEIS

Figure 3.10 - 5
Major Gas/Oil Lines

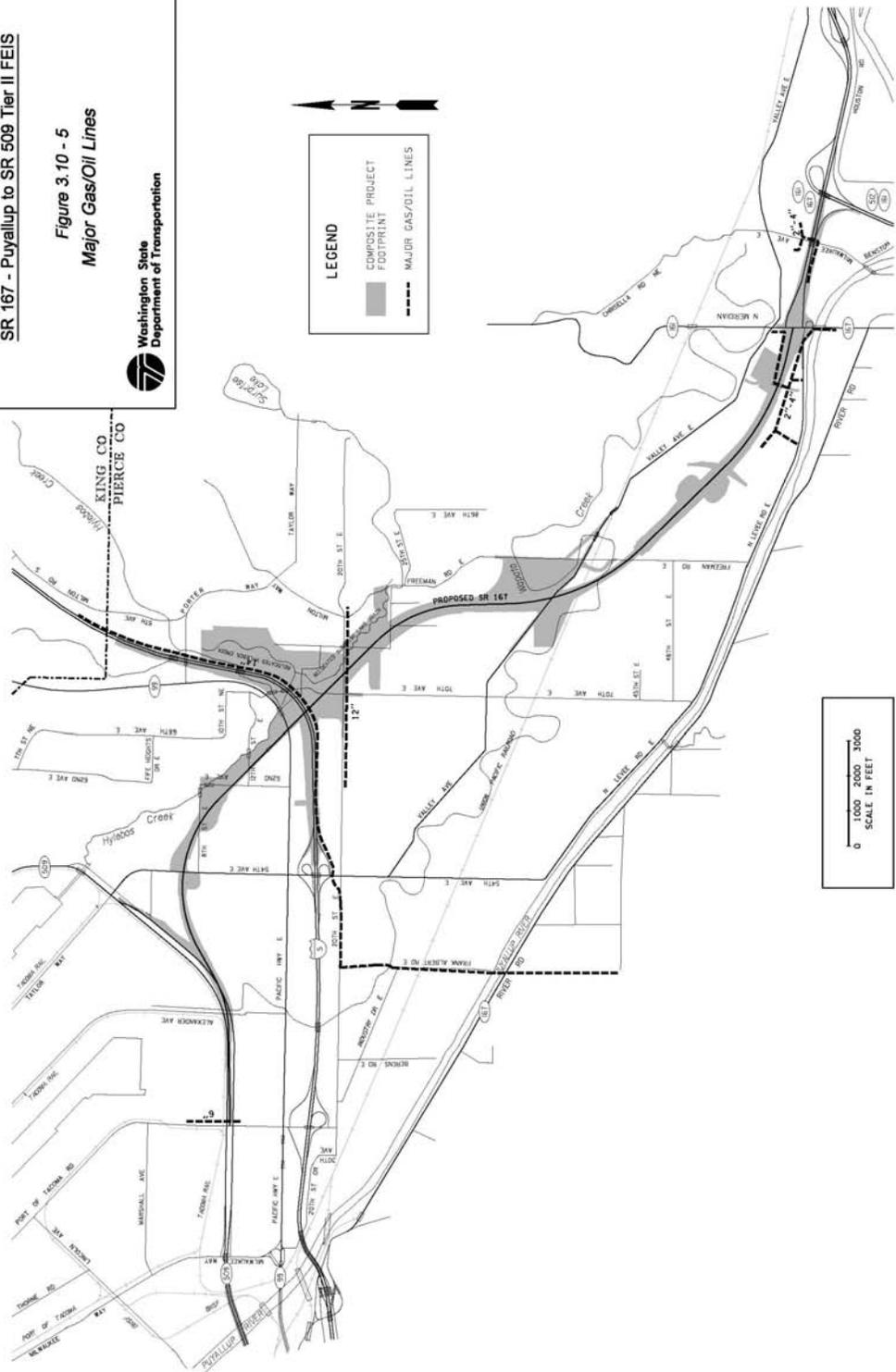
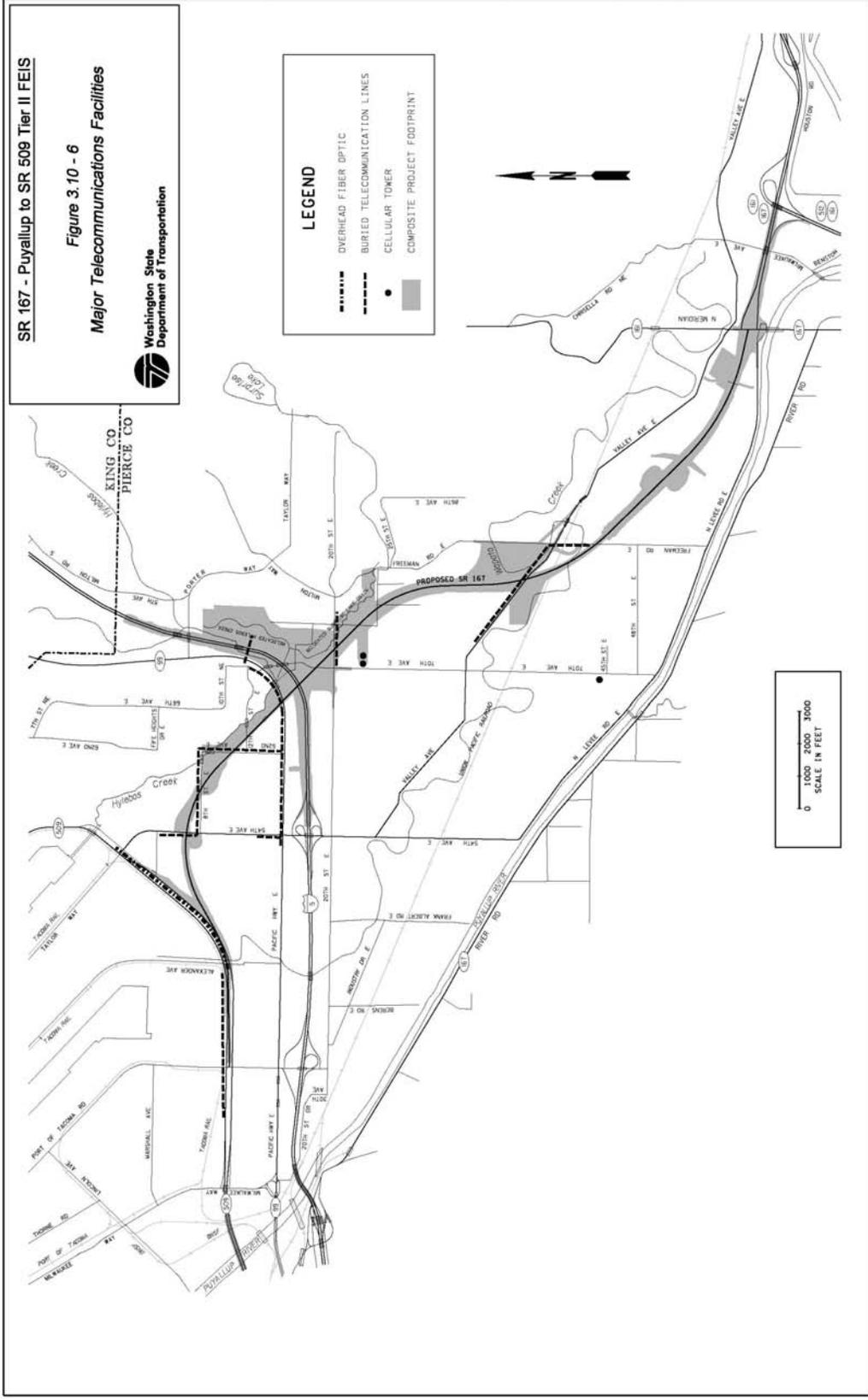
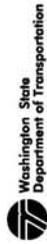


Figure 3.10 - 6
Major Telecommunications Facilities



Water

There are four different water service providers for the project area. Tacoma Water services the beginning of the project, the City of Milton services the proposed SR 167 and I-5 interchange area, and the City of Puyallup services the area of the proposed SR 161 and SR 167 interchange. The City of Fife is also a water provider. Figure 3.10-7 illustrates the major water lines in the study area.

The remainder of the project area is serviced by private wells. Many of these are community wells classified as Group A or B by the Washington State Department of Health. These are shown on Figure 3.2-5 in the Water Resources section and are discussed in more detail there.

Sewer

Four separate municipalities provide sewer service within the proposed project area. They are Tacoma Public Works, Pierce County Public Works, the City of Fife, and the City of Puyallup. Figure 3.10-8 shows the locations of the major sewer lines. The majority of the private homes in the valley have their own septic systems.

Stormwater

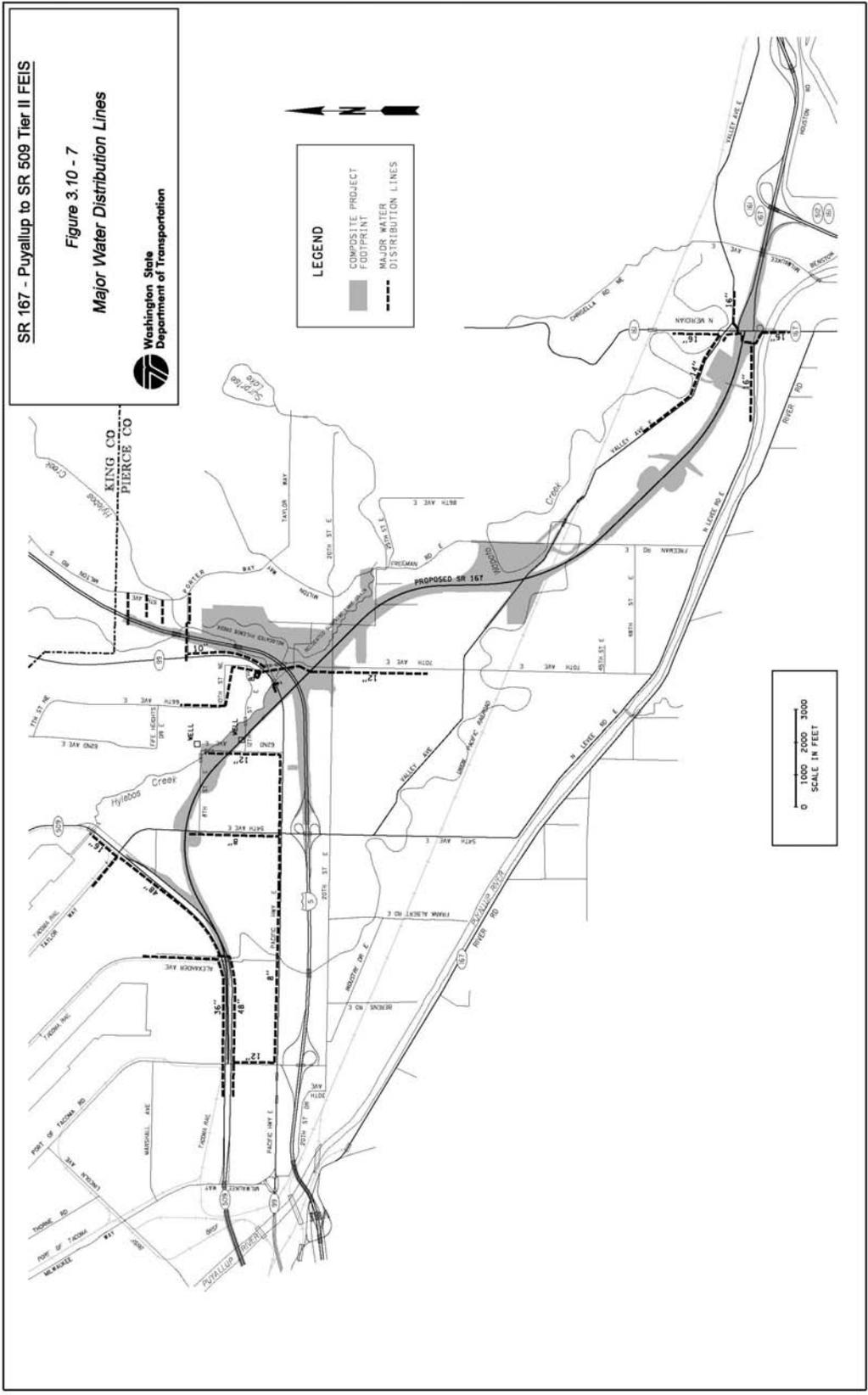
There are three stormwater systems that may be impacted by this proposed project. Two of these systems are near the Port of Tacoma along SR 509 and the other is near the proposed interchange of SR 167 and SR 161. The major features of each system are shown in Figure 3.10-9.

Tacoma Public Works owns and operates a system that runs parallel to the North Frontage Road of SR 509. It ranges in size from a 24-inch to 36-inch pipe. Another system is near the 54th Avenue East and SR 509 intersection. This system ranges in size from 12-inch to 30-inch pipe. Tacoma Public Works recently acquired these systems and is in the process of mapping, locating and inventorying the systems.

The stormwater system near the proposed SR 167/SR 161 interchange is owned by the City of Puyallup.

Solid Waste

Murray's Disposal Company collects and disposes of the solid waste within the study area. The company operates a solid waste transfer station outside the project area near 70th Avenue East and N. Levee Road. There are between 30 and 40 truck trips daily to this transfer station. From the transfer station refuse is then transported to a local landfill.



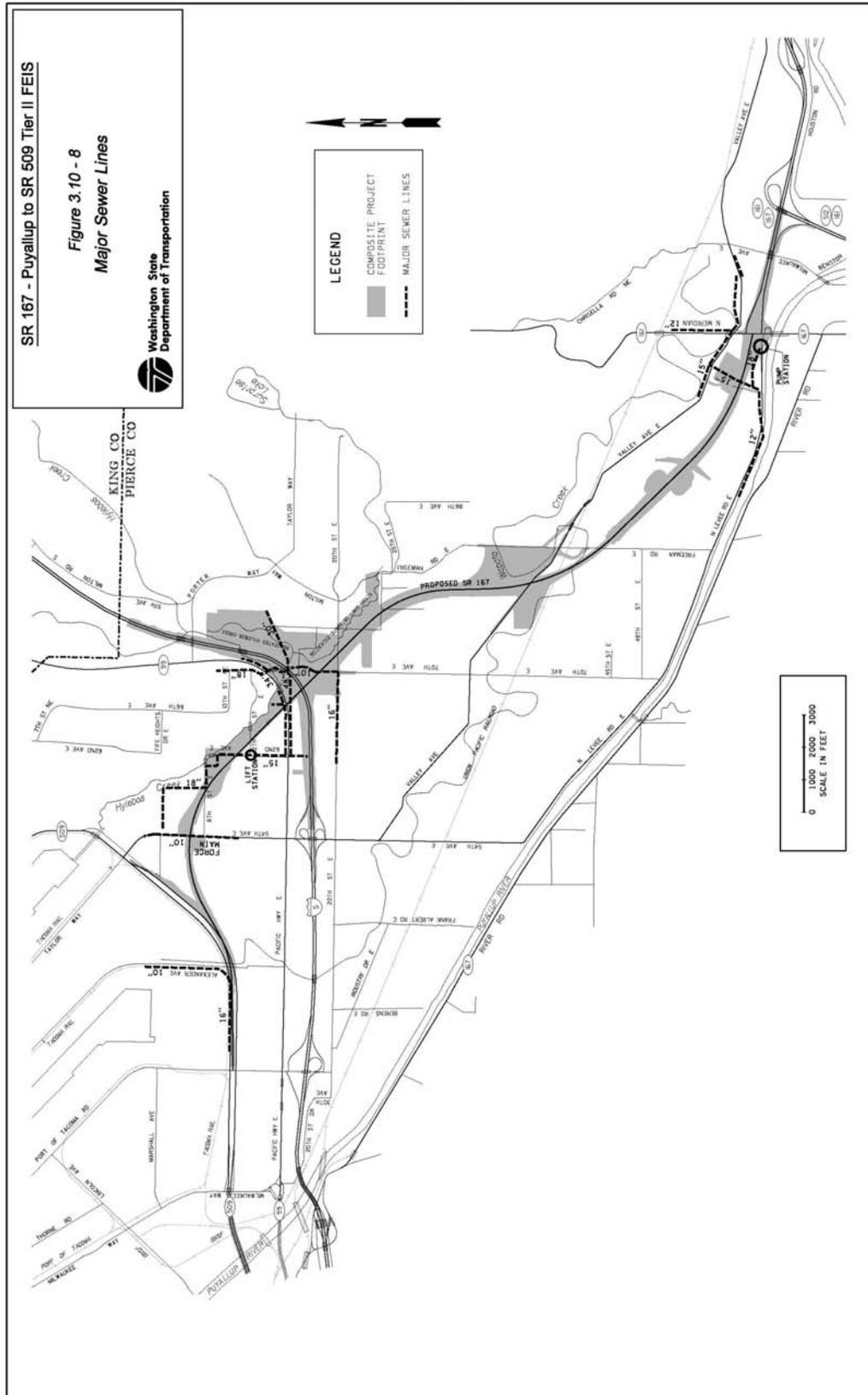
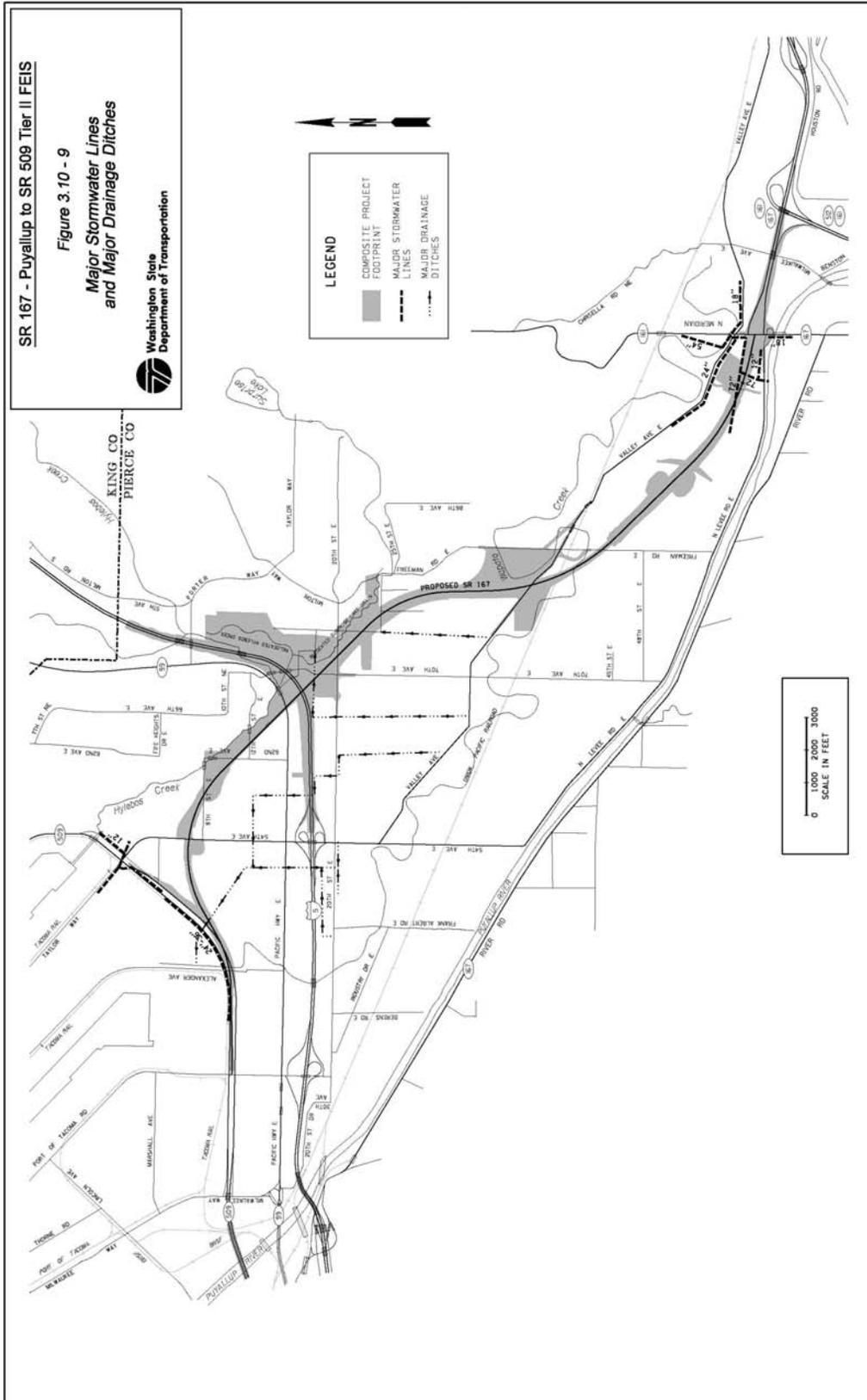
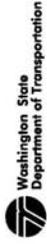


Figure 3.10 - 9
Major Stormwater Lines
and Major Drainage Ditches



3.10.3 Impacts of Construction

No Build Alternative

The No Build Alternative would have substantially fewer construction impacts than the Build Alternative. The cities and county would continue to make improvements to the transportation network. These improvements would likely impact some utilities and public services, but the location and extent of these impacts are unknown at this time.

While the project would not be constructed, WSDOT would continue making improvements to the existing facilities. These include SR 167 (River Road), SR 161, SR 99, SR 509, and I-5. These improvements could include capacity additions, HOV lanes, intersection improvements, and park and ride facilities. Individually, these projects are likely to have fewer impacts on public services and utilities compared to the Build Alternative.

Build Alternative (Preferred)

The analysis of construction impacts is broken into the different project segments proceeding from SR 509 to the SR 167/SR 161 interchange for each of the service areas.

Public Services (Education, Government, Social, Medical, Fire, Police, and Recreation)

There are no public facilities such as hospitals, schools, and police departments located within the project corridor or separated from the community they serve by the project. Access to these facilities and their services will not be halted by construction, but use of alternate routes may be necessary during periods of construction. Rerouting and disruptions in access could temporarily impact emergency service responders such as ambulance, police, and fire protection, especially when traveling through construction areas.

There are no existing recreational facilities that will be permanently impacted from the construction of the project. Some existing facilities will be temporarily impacted due to traffic control and road closures. Once the project is completed, traffic patterns will re-establish themselves based on the revised road system.

Two planned recreational facilities, the Pacific National Soccer Park in Fife and the Interurban Trail, will likely be permanently impacted by the project. FHWA and WSDOT have and will continue to coordinate with the City of Fife, Pierce County and the City of Milton in order to minimize impacts. Section 3.15 and Chapter 5 provide additional discussions of these facilities.

The City of Milton police and fire departments, and Tacoma Fire Station No. 12, located near the construction zone of the I-5 interchange, could experience unavoidable delays in response times for calls requiring travel through the construction area. Temporary detours and time delays during construction may necessitate changes in established routes for the duration of construction. No change in fire district service areas will occur as a result of the project and no additional facilities or services will be warranted.

Both the police and school buses use 20th Street East heavily. The route serves as the most widely used bus corridor, connecting the eastern and western halves of the school district. Temporary detours and time delays during construction will necessitate changes in established routes for the duration of construction. No change in school district service areas will occur as a result of the project and no additional facilities or services will be warranted.

Utilities

WSDOT will determine the locations of utilities within the construction zone during the design phase. Before construction begins, utility impacts will be closely evaluated and a determination made on whether or not to relocate the utility facilities. The number of relocations will depend on the final design of the mainline and each interchange.

Electric Utilities

Mainline

The 230-kV power line that crosses the proposed project between Alexander Avenue and Port of Tacoma Road should not be impacted by the proposed construction (see Figure 3.10-4). The 110-kV line that crosses the proposed alignment between Alexander Avenue and 54th Avenue East and then turns east following 8th Street East will be impacted during construction. The alignment in this area is designed to be on structure and these lines may need to be moved for clearance.

I-5 Interchange

At the I-5 interchange, Tacoma Power has facilities along the north side of SR 99 and along 70th Avenue East that may be impacted by the proposed interchange. These power lines will potentially need to be relocated to avoid structures and new alignments.

54th Avenue East Interchange

The Half-Diamond design option would necessitate the relocation of one large transmission tower, possibly two, depending on the final design. Two transmission towers will need to be relocated if the 54th Avenue East Preferred Loop Option is built.

Valley Avenue Interchange

There were no major power facilities located in this area. There may be smaller, low-voltage residential lines that may be impacted. These lines will be evaluated during the design phase of this project and it will be determined which ones may need to be relocated.

SR 161/SR 167 Interchange

The three options have the same impacts on electric power utilities. The power is carried on overhead power poles located along the edge of the impacts for these design options. These lines will need to be evaluated during the design phase to determine if relocation of the facilities is necessary. There is one line that crosses over the proposed alignment and will need to be relocated or buried.

Natural Gas and Other Fuels

Mainline

There is one identified gas line in the SR 509 area. McChord Pipeline Company owns a line that runs parallel to the east side of Port of Tacoma Road. It is unlikely that there would be any impacts to this gas line because of its depth (see Figure 3.10-5).

I-5 Interchange

At the I-5 interchange, the Olympic Pipeline Company owns a major gas line that runs parallel to the northbound lanes of I-5. This high-pressure gas line will be impacted by the proposed interchange. The relocation of 70th Avenue East and 20th Street East will have major impacts to the line as well. Close coordination with Olympic Pipeline during the design phase will minimize such impacts as pier locations for structures. However, the gas line may need to be relocated prior to the beginning of construction to avoid damage.

The PSE natural gas line that parallels 20th Street East may be impacted by the construction of the I-5 interchange. During design, this gas line will be located. It may need to be relocated due to structure locations. The final design will determine the extent of impacts to this line.

54th Avenue East Interchange

There are no identified gas lines or other fuels in this area.

Valley Avenue Interchange

There are no identified gas lines in this area.

SR 161/SR 167 Interchange

There are some small gas lines within the interchange area that will be impacted. Coordination with PSE during the design phase will determine if these lines will need relocation or if during construction new lines should be buried underneath the proposed roadway. All design options will have the same impacts to the gas facilities in this area.

Telecommunications

Mainline

The small buried conduits throughout the project corridor owned by QWEST may be impacted. These conduits may need to be relocated prior to construction. Final design will determine the impact to these facilities.

The improvements to the mainline of I-5 may impact a buried communication line that crosses underneath it near Hylebos Creek. The depth of the cable and its condition will determine if this line needs to be relocated or replaced. If it is in good condition and has enough cover, there may be no impacts of construction to this cable. Another buried cable located in the 20th Street East vicinity will need to be relocated to avoid the new configuration of the pair of roundabouts.

WSDOT conducted a field survey in 2003 and found that three cellular towers are located in the study area. There will be no impacts to any of these cellular towers.

54th Avenue East Interchange

The Half-Diamond Option would have more impacts along 8th Street East than along 54th Avenue East. During the design phase of the project, the telecommunication lines would be surveyed to find their exact location. This would determine the extent of impacts. If the line is located on the west side of 54th Avenue East and the north side of 8th Street East, there may be no impacts. However, if the line is on the opposite side of the road, some relocations or temporary lines may need to be constructed until the project is finished with construction.

The Preferred Loop Option at this location will impact the communication line along 54th Avenue East regardless of which side of the street the conduit is on. Relocation or temporary services may be necessary to maintain service.

Valley Avenue Interchange

All design options for the Valley Avenue interchange would impact the existing buried telecommunications line that travels parallel to Valley Avenue. This line will need to be relocated since Valley Avenue would be widened from two lanes to five in this location.

SR 161/SR 167 Interchange

No telecommunication lines are identified in this area.

Water

Mainline

Along SR 509 between the Port of Tacoma Road and Taylor Way, a large water system exists (see Figure 3.10-7). This system may be impacted close to where the proposed SR 167 would begin. Tacoma Water will be involved early on in the design process so that impacts to their water system can be minimized. It is unlikely that these water lines will need to be relocated. If the pipe is not structurally strong enough to have more fill or asphalt on top of it, a cap may be designed to place over it for protection.

The fill over 62nd Avenue East north of SR 99 may impact the 12-inch line and one of Fife's city wells. The final design will determine the extent of impacts. It may be necessary to relocate the water line.

I-5 Interchange

There is a water system in the vicinity of the proposed SR 167 and I-5 interchange. Impacts to this system will be minimal because most of the roadway improvements will be on structure. During the design phase of this project, the system will be evaluated and, if plausible, structure piers will be placed to avoid impacting this facility. If the system will be impacted by

additional fill or if it is located within the proposed right-of-way, it may need to be relocated.

54th Avenue East Interchange

The eight-inch line along 54th Avenue East may need to be relocated under the Preferred Loop Option. The Half Diamond Option would not impact known water lines.

Valley Avenue Interchange

There are no identified water systems in this area.

SR 161/SR 167 Interchange

The water system in this area may need to be relocated depending on the final design configuration. The placement of bridge approaches may determine whether this system would need to be relocated or capped. The part of the system that is not encompassed by the structure may need to be moved if the Low Diamond or Medium Diamond option is chosen to accommodate the on ramps to northbound SR 167 in the final design.

Sewer

Mainline

Near SR 509, Tacoma Public Works maintains a sewer line that parallels the North Frontage Road and turns north on Alexander Avenue (see Figure 3.10-8). It is not anticipated that this sewer line will be impacted by construction of this project.

A 15-inch sewer line crosses the proposed mainline at 62nd Avenue East. The mainline is on fill in this area. The final design will determine the extent of impacts.

I-5 Interchange

At the I-5 interchange, Tacoma Public Works maintains a major 48-inch sewer line. WSDOT will coordinate closely with Tacoma Public Works to determine how to relocate this sewer line or find another plausible solution in lieu of relocation, if the sewer line is directly impacted.

The City of Fife has an existing gravity sewer system in the vicinity of 70th Avenue East and 20th Street East.

54th Avenue East Interchange

The City of Fife has one existing 10-inch sewer line located in 54th Avenue East. WSDOT will coordinate closely with the City of Fife to determine how to relocate this sewer line or find another plausible solution in lieu of relocation, if it is impacted.

Valley Avenue Interchange

There are no identified sewer lines in this area.

SR 161/SR 167 Interchange

Just west of the SR 161/167 interchange, there is a 15-inch sewer line that crosses underneath the mainline. This sewer line will need to be protected from the additional fill material that would be placed on it. This may be in the form of a cap or a reinforced sanitary sewer pipe.

The 15-inch sewer line connects with an 18-inch sewer line that travels to a lift station just west of the N. Levee Road intersection with SR 161. This sewer line and lift station would be impacted by any of the interchange design options. It may be necessary to relocate the lift station outside of the fill and therefore realign the 18-inch sewer line that comes into the system. The sewer line will need to be replaced with a reinforced pipe if fill heights warrant it. This may interrupt sewer service for customers until these construction-related impacts are finished.

Stormwater

Mainline

Along SR 509, a stormwater system runs parallel to the North Frontage Road. It is unlikely that this system will be impacted by the project, however final design will determine if any impacts will occur.

I-5 Interchange

No stormwater systems are identified in the I-5 interchange area.

54th Avenue East Interchange

No stormwater systems are identified in this area. The city of Fife has an existing sewer system located in 54th Avenue East.

Valley Avenue Interchange

No stormwater systems are identified in this area.

SR 161/SR 167 Interchange

There is a large stormwater system located in the interchange area. A 72-inch-diameter pipe network is located along the mainline just west of the interchange. This stormwater system will need to be redesigned to adjust for the changes that the project would create. If it is determined that these pipes may stay in place, they will have to have some sort of pipe protection. Replacing the pipes with a reinforced concrete stormwater pipe is an option as well as capping the existing pipes with concrete. If possible, the 72-inch outfall should remain in place and not be disturbed. All of the design options for this location would impact this stormwater system.

Solid Waste

Mainline and Intersection Options

Travel times for solid waste trucks will likely increase during construction throughout the project area. This service will not be halted by construction, but use of alternate routes may be necessary during periods of construction.

Temporary detours and time delays during construction will necessitate changes in established routes for the duration of construction.

3.10.4 Impacts of Operation

No Build Alternative

Public services in the project area would continue to suffer from the operation impacts of the current transportation system under the No Build Alternative. Emergency service response times would increase because of the increased traffic congestion. The local jurisdictions would continue to make improvements to the transportation network, but travel times would likely continue to increase.

WSDOT would continue to make improvements to the existing facilities including SR 167 (River Road), SR 509, SR 99, I-5, and SR 161. But these improvements would not improve traffic congestion nor reduce safety issues to the same degree as the Build Alternative.

No foreseeable impacts of operation are expected to the utilities under the No Build Alternative.

Build Alternative (Preferred)

Public Services (Education, Government, Social, Medical, Fire, Police, and Recreation)

Mainline and Intersection Options

Once construction is complete, school buses, police, fire, and emergency vehicles will be provided with an additional route option in providing services. With heavy industrial traffic removed from local arterials, historically congested streets will no longer impede emergency vehicles. As a result, access will improve and travel times will decrease in the project area. Emergency service response times to residential areas will improve. No change in service area will occur as a result of the project. No additional facilities or services will be warranted. No existing recreational facilities will be impacted by the new highway alignment. FHWA and WSDOT will make every effort to minimize impacts to any proposed recreational facilities. For additional information on recreational facilities see the *Section 4(f) Evaluation* in Chapter 5 of this Final EIS.

Utilities

Mainline and Intersection Options

Upon completion of construction, there will be no operational impacts to utilities. All substantial impacts will be taken care of during the construction phase of the project. All relocations of services will be finished and temporary service facilities will be removed before completion of construction.

Once construction is complete, disposal trucks will be provided with an additional route option in providing solid waste services. No change in service area will occur as a result of the project. No additional facilities or services will be warranted.

3.10.5 Cumulative Impacts

Cumulative impacts to public services and utilities are not discussed because the proposed transportation project is not likely to contribute, either positively, negatively, nor is it likely to alter the magnitude of other foreseeable impacts.

3.10.6 Mitigating Measures

Public Services

Impacts to fire, emergency, and police services during construction will be limited to temporary disruptions of service routes within the construction zone. Service providers affected by construction will be notified in advance of the construction period. Police, fire and emergency response, school districts and solid waste providers will be notified of construction schedules, access restrictions and possible detour routes prior to access modification.

To the extent possible, the scheduling of road closures and detour routes will be coordinated with police, fire, and emergency services, school districts and businesses dependent on delivery routes in the active construction area to minimize delay times. Traffic control requirements during construction will conform to state and local regulations. Restricting lane closures and construction activities that impact traffic during peak commuter hours and peak holiday travel periods can help to ease backups and time delays. Maintaining an open communication process will keep local residents informed of development phases, areas of construction, and possible travel alternatives.

Utilities

Impacts to utilities will be determined during the design phase of the project and any relocation should take place prior to construction.