

3.12 PUBLIC SERVICES AND UTILITIES

This section describes the public services and utilities provided in the vicinity of the proposed Plymouth Generating Facility (PGF) in southern Benton County, Washington, and analyzes the potential impacts of the proposed PGF on the services and utilities. Public services and utilities analyzed include law enforcement, fire protection and emergency response (including ambulance response), disaster preparedness and response, schools, electricity, natural gas, water, solid waste, telephone, sanitary sewers/septic system, and stormwater.

3.12.1 AFFECTED ENVIRONMENT

3.12.1.1 Site Area

3.12.1.1.1 Public Services

Law Enforcement

The Benton County Sheriff's Office and Washington State Patrol (State Patrol) provide law enforcement services to the site area. The Sheriff's Office Patrol Division has 34 uniformed deputies on patrol in marked cars. These patrol officers work 12-hour shifts, starting at 6 a.m. and 6 p.m., and are the first responders to a law enforcement emergency. The Patrol Division is organized into four patrol squads, each with eight deputies. A maximum of eight deputies per shift are on patrol in Benton County at any one time. At certain times, fewer than eight deputies are on patrol due to vacations, sick leave, and other reasons. The Patrol Division also includes other commissioned officers with arrest authority, such as school resource officers and plainclothes detectives (Kissler 2002).

One deputy is dedicated to patrolling the south end of Benton County 40 hours per week during varied shifts. During the summer, additional patrols take place near Plymouth because the U.S. Army Corps of Engineers (Army Corps) contracts with the Sheriff's Office to patrol an unimproved camping area on Army Corps property at the Columbia River. In 2001, the Sheriff's Office responded to 296 incidents in the Plymouth-Paterson area (Thompson 2002). These incidents included thefts, burglaries, citations, civil complaints, and other calls for service, but do not include traffic accidents.

The Sheriff's Office Marine Division operates a boat located at a typically unstaffed office in Paterson, on Army Corps property (Kissler 2002). The Marine Division provides regular water patrol on weekends and full-time water patrol during the summer (Benton County 2002). The Marine Division boat also serves as a response platform for emergency services under the Chemical Stockpile Emergency Preparedness Plan. This emergency response plan has been prepared in the event that problems occur at the Umatilla Chemical Depot near Hermiston, Oregon. The Paterson office where the boat is located also has a four-wheel drive vehicle and an all-terrain vehicle.

The State Patrol Field Operations Bureau is responsible for enforcing traffic laws, investigating collisions, and assisting motorists on state and interstate highways throughout Washington State. State Patrol troopers also respond to aircraft, boat, and hazardous materials incidents (A. Brown 2002). Benton County is located in State Patrol Field Operations Bureau District 3 (District 3),

along with Asotin, Columbia, Franklin, Garfield, Walla Walla, and Yakima counties. District 3 is one of eight State Patrol Field Operations Bureau districts in the state, and encompasses over 900 miles of state and interstate highways. District 3 is headquartered in Union Gap. Troopers working from the Kennewick detachment¹ (the closest to the site area) patrol state and interstate highways in Benton County. The Kennewick detachment has 14 troopers on the roads, two sergeants on the roads, and four specialty officers (Sutton 2002). Other detachments are located in Sunnyside, Union Gap, and Walla Walla. District 3 has 139 employees working in general law enforcement, traffic investigations, auto theft, narcotics investigations, commercial vehicle enforcement, vehicle inspections, communications, and support services. The response time from the Kennewick detachment to the site area is approximately 30 to 45 minutes (Sutton 2002). According to the State Patrol, calls for service increase in the winter due to poor road conditions (Sutton 2002). District 3 also includes a crime laboratory.

Fire Protection and Emergency Services

The site area is within Benton County Fire District 6 (District 6), whose service area covers 276 square miles in southwest Benton County, including 32 miles of State Route (SR) 14. District 6 provides fire protection and emergency services (ambulance response) to southwest Benton County, and also provides ambulance service on SR 14 in the eastern part of Klickitat County. District 6 staff include one paid fire chief and 30 to 35 volunteer firefighters. The four District 6 fire stations are located at Plymouth, Paterson, 5 miles north of Paterson on SR 221, and 8 miles west of Paterson on SR 14. All four stations have Class A fire engines (Harris 2002). District 6 has responded to an average of 140 to 150 calls annually during the past 10 years, including an average of 75 medical calls (Harris 2002). District 6 is part of the Benton County 911 emergency systems. Calls to this system are dispatched through the Prosser Police Department.

The Plymouth Fire Station (Plymouth Station) serves the site area. Equipment at the Plymouth Station includes one fire engine, one four-wheel drive medical aid unit with intermediate life support equipment, and one off-road vehicle used for fighting grass fires. The medical aid unit does not transport patients. Response time from the Plymouth Station to the plant site is estimated at approximately 15 minutes, depending on the location of the volunteer firefighters at the time of the call.

The Paterson Fire Station (Paterson Station), located approximately 13 miles from the Plymouth Station, has one fire engine furnished with equipment to extricate people trapped in damaged vehicles. The Paterson Station also has the use of two intermediate life support transport ambulances, including one transport ambulance stationed at the Paterson Station, and a second transport ambulance that is shared between the Paterson Station and the station on SR 221. The ambulance that responds to an emergency would transport patients to the nearest facility that can handle the patient's injury. Patients are typically taken to Good Shepherd Medical Center in Hermiston, Oregon, about 8 miles from Plymouth, for emergency care (Good Shepherd Medical Center 2002). Patients can also be transported to Kennewick General Hospital, if Good

¹ A detachment is a field office.

Shepherd does not have the capacity or resources appropriate for the type of emergency. Some patients are transported to Good Shepherd, then airlifted to other hospitals if needed.

District 6 has mutual aid arrangements for fire and emergency (ambulance) response services with other fire departments in the region, including the City of Hermiston and Umatilla County in Oregon, and fire departments in the Tri-Cities and other areas in Benton and Franklin Counties. About 10 to 15 ambulances would be available to respond to an incident in the site area within 30 to 45 minutes (Harris 2002).

Emergency Preparedness and Response

Benton County Emergency Services (BCES) focuses on emergency preparedness, education, response, and recovery activities, in order to reduce the potential impacts of a major emergency or disaster. This type of planning has been developed because Benton County is at risk from incidents or disasters at nearby hydropower dams, the Hanford Site, and the Umatilla Chemical Depot, and is also at risk from natural disasters (Garza 2002). BCES is composed of two divisions: Benton County Emergency Management (BCEM) and Southeast Communications Center (SE-COMM) (Benton County Emergency Services 2002).

BCEM staff provides emergency preparedness planning and information, and coordinates emergency response and recovery efforts. Emergency planning involves coordination with various state, city, and county agencies and organizations such as the American Red Cross, Salvation Army, hospitals, and the telephone company, among others. The *Benton County Comprehensive Emergency Management Plan* is produced by the BCEM and establishes responsibilities for all participating agencies and organizations. During an emergency, local government and response agencies send representatives to the BCEM Emergency Operations Center, where emergency response would be coordinated. BCEM staff also provide support for (1) the Radiological Emergency Program to respond to incidents at the Hanford Site, and (2) the Chemical Stockpile Emergency Preparedness Program to respond to emergencies at the Umatilla Chemical Depot near Hermiston, Oregon. BCEM conducts frequent drills and exercises so that staff and outside agencies can practice for emergencies.

SE-COMM is the 911 dispatch center for the Benton County Sheriff's Office; Fire Protection Districts 1, 2 and 4; the Cities of Kennewick and Richland police and fire agencies; City of Richland police and fire agencies; and the West Richland Police Department.

Schools

The site area is within the boundaries of the Kennewick School District (KSD), which includes elementary, middle, and high schools. As of the 2001-2002 school year, 13 elementary, 16 middle school, and 16 high school students (45 total) from Plymouth attend KSD schools (Eckert 2002). The 45 students attend Ridge View Elementary, Horse Heaven Hills Middle School, and Southridge High School (Sealock 2002). The KSD adds portable classrooms as needed and has capacity for growth in student enrollment, even though the Plymouth Elementary School was closed at the end of the 2000-2001 school year. Overall, KSD enrollment was 13,993 in October 2001 (Office of Superintendent of Public Instruction 2002).

Less than 10 students from Plymouth attend Paterson Elementary School, which is located 13 miles west of Plymouth and is the only school in the Paterson School District No. 50 (PSD). PSD is immediately west of the KSD and includes grades K-8. Paterson Elementary School has 94 students enrolled (K. Brown 2002). A few grade levels are over capacity, but most have openings for students. The PSD is discussing whether to add classrooms (K. Brown 2002).

The Umatilla School District (USD) is located across the Columbia River in the City of Umatilla, Oregon. The USD has approximately 1,200 students enrolled in elementary, middle, and high schools. McNary Heights Elementary School has approximately 700 students in a building designed for 500 students. Clara Brownell Middle School is just under capacity. Umatilla High School, a new school, has 290 students in a building designed for 500 students. The USD uses portable classrooms as needed. The USD needs to expand, although funding for expanded operations is not currently available (Wilson 2002).

Higher education institutions in Benton County include Columbia Basin College, Washington State University Tri-Cities, and City University (Columbia Basin College 2002; City University 2002; Washington State University Tri-Cities 2002).

3.12.1.1.2 Utilities

Electricity

Electricity in the site area is supplied by the Benton Rural Electric Association (REA). Benton REA is an electricity cooperative owned by its members (Benton REA 2000). Founded in 1937, the Benton REA operates on a not-for-profit basis and serves an approximate 1,300-square-mile area in Benton and Yakima counties, including the community of Plymouth. Benton REA provides electricity to residential, industrial, commercial, and agriculture and irrigation members through its 25 distribution substations.

The Benton Public Utility District (PUD), first organized in 1934, became an operating utility in 1946. The not-for-profit Benton PUD serves most of Benton County except for the City of Richland, the Hanford Site, and some rural areas that are served by Benton REA. A Benton PUD transmission line runs to the south of the site area along Christy Road and connects to the Bonneville Power Administration (BPA) substation at McNary Dam.

The BPA is a federal agency that markets wholesale electricity and transmission to public and private utilities and some large industries in the Pacific Northwest (BPA 2002). BPA markets power generated at 30 federal dams and some nonfederal power plants such as the nuclear plant at the Hanford Site and some wind energy plants. BPA transmission lines run to the north of the site area and connect to McNary Dam. BPA headquarters are in Portland, Oregon.

Natural Gas

Williams Northwest Gas Pipeline Company (Williams Co.) operates and maintains a natural gas pipeline system that runs through Benton County. Four legs of the pipeline are connected to the Williams Co. Plymouth compressor station, located adjacent to the south side of the plant site.

The site area is within the service area of Cascade Natural Gas Corporation (Cascade), which builds, operates, and maintains natural gas distribution facilities in Benton County. Cascade's Kennewick office serves the Plymouth area (Cascade Natural Gas Corporation 2002).

For more information about natural gas sources and use, please see Section 3.5, Energy and Natural Resources.

Water

The site area is not currently served by a public water district. The Plymouth Water District, in existence since 1977, is a Class A public water district with 60 users in the community of Plymouth. The Plymouth Water District has two wells, with one serving as a backup and a 250,000-gallon storage tank. The district could accommodate additional users (Lear 2002). The Plymouth Water District capacity of 1,186,000 gallons per day greatly exceeds current demand (Benton County 2001).

Solid Waste

Solid waste pickup services are provided to the site area by Sanitary Disposal of Hermiston, Oregon, under a certificate issued by the State of Washington (Jewett 2002). Sanitary Disposal is certified to provide trash pickup in a 120-square-mile area along the SR 14 corridor, from McNary Dam on the east to the county line on the west. Sanitary Disposal serves approximately 130 residential and commercial customers and 10 industrial customers, and operates a transfer station at its Hermiston location.

Telephone

Telephone service in the Plymouth area is provided by Verizon (Avey 2002).

Sanitary Sewers/Septic System

A sanitary sewer system does not exist in the site area. New development provides its own septic system for sewage disposal.

Stormwater

No stormwater utility exists in the site area.

3.12.1.2 Proposed Action

3.12.1.2.1 Plant Site

The plant site would be served by the agencies and utilities discussed in Section 3.12.1.1, Site Area. Additional specific information related to law enforcement and fire protection and emergency services at the plant site is provided below.

Law Enforcement

The Benton County Sheriff's Office estimates that the minimum response time to the plant site for an emergency is typically 30 to 60 minutes. The response time would be faster if the deputy dedicated to patrolling the south end of Benton County were in the area when an emergency is reported. The Washington State Patrol Kennewick detachment is the closest detachment to the plant site.

Fire Protection and Emergency Service

The District 6 Plymouth Station is approximately 2 miles from the plant site, and the Paterson Station is approximately 11 miles from the plant site. Response times from the Plymouth Station to an incident at the plant site is estimated to be 15 minutes or less, depending on volunteer firefighters' location at the time of the call.

3.12.1.2.2 Transmission Interconnection

The area where the transmission interconnection would be constructed is within the site area. See Section 3.12.1.1 for a discussion of the public service providers and utilities that serve the site area.

3.12.1.2.3 Access Road

The area where the access road would be constructed is within the site area. See Section 3.12.1.1 for a discussion of the public service providers and utilities that serve the site area.

3.12.1.3 Alternate 230-kV Transmission Interconnection

The existing conditions for the alternate 230-kilovolt (kV) transmission interconnection would be the same as the existing conditions for the proposed transmission interconnection because the 230-kV line is located in the same physical location as that proposed 500-kV line.

3.12.1.4 Alternate Benton PUD/BPA Transmission Interconnection

The area where the alternate Benton Public Utility District (PUD)/BPA transmission interconnection would be constructed is within the site area. See Section 3.12.1.1 for a discussion of the public service providers and utilities that serve the site area.

3.12.1.5 Access Alternative

The area where the alternate construction and operation access roads would be constructed or improved is within the site area. See Section 3.12.1.1 for a discussion of the public service providers and utilities that serve the site area.

3.12.2 ENVIRONMENTAL CONSEQUENCES

3.12.2.1 Methodology

This section addresses the environmental impacts of the Proposed Action and alternatives related to public services and utilities. Sources of information for this section included consultations with public service agencies and utilities, review of the *Benton County Comprehensive Land Use Plan* (Benton County n.d.) and *Benton County Comprehensive Emergency Management Plan: Basic Plan* (Benton County 2002), and review of information available on Internet web sites for public agencies, utilities, and schools.

Impacts to public services and utilities were rated high (significant), moderate, or low. The rating depends on the extent to which the proposed project would (1) induce increases in demand for public services and utilities due to either expected increases in the number of calls for service or to a change in type of emergency, or (2) result in delays to police and fire emergency responses, or (3) result in disruptions in public services and utilities.

3.12.2.2 No Action Alternative

Under the No Action Alternative, the PGF would not be built. No impacts to public services and utilities would result.

3.12.2.3 Proposed Action

3.12.2.3.1 Plant Site

Public Services

Law Enforcement

Construction. During peak construction activity, 222 construction workers would enter and depart from the plant site daily, resulting in approximately 288 vehicle trips. In addition, 20 delivery trucks would enter and depart from the site on a daily basis during the peak construction period, which would last approximately 7 months. The additional traffic attributable to PGF construction could result in a small increase in traffic accidents requiring law enforcement response. Construction traffic approaching or leaving the plant site would not be expected to be heavy enough to cause a delay in law enforcement response. In addition, a disruption to the provision of law enforcement services attributable to construction would not be expected to occur.

Other potential calls for service due to construction could include heavy traffic at certain times, speeding vehicles, industrial accidents, or theft from the site (Kissler 2002). These incidents are expected to occur infrequently and would not result in substantial increases in demand for law enforcement services. Delays in response are not expected because no detours or road closures would occur during construction. In addition, the level of service (LOS) for transportation, an indicator of traffic movement and delays, would remain at its current level during project construction, thus suggesting that traffic delays and volumes would not differ substantially. LOS

is discussed in Section 3.11, Transportation. Impacts to law enforcement services are expected to be low.

The estimated minimum response time to the plant site during an emergency would remain at 30 to 60 minutes for Benton County Sheriff's Office, unless a deputy is nearby and can provide a faster response. Washington State law empowers police agencies to call other agencies in the state for emergency help (Kissler 2002). The State Patrol could also provide law enforcement service in an emergency, but is usually patrolling the Tri-Cities or Franklin County areas and therefore would be 25 or more miles away. Other possible responders include the Klickitat County Sheriff's Office and the City of Prosser police. The closest law enforcement agencies that could respond if called by the Benton County Sheriff's Office to serve as additional response agencies include Umatilla City Police, Umatilla County Sheriff's Office, and the Oregon State Police. The Benton County Sheriff's Department does not have a formal response agreement with the Oregon agencies. Because of the Plymouth area's isolation, law enforcement response to an incident at the plant site would not likely be immediate but would not change due to PGF construction.

Since peak construction would not occur during the winter, increased traffic accidents that occur under existing conditions due to poor winter road conditions would not likely be exacerbated by the peak number of construction vehicles. The State Patrol expects that they would be able to accommodate the increase in demand for service (Sutton 2002).

Operation. Incidents that would require law enforcement response during PGF operation include traffic accidents near the plant site, theft or other crime, or industrial accidents. With a maximum of 20 employees working the two or three shifts at the plant, and safety and security measures in place, the number of these incidents is expected to be minimal, thus resulting in a low impact to law enforcement services. Response times would be the same as those described for construction.

Fire Protection and Emergency Services

Construction. Incidents near or at the plant site that would require fire protection and emergency response during construction include traffic accidents, industrial accidents, and fires. The most likely impact is expected to be an increased in number of calls for service due to traffic accidents during the fall harvest season, when harvest workers and construction traffic would be on the road. Traffic accident rates have historically increased from one or two per week to one or two per day during harvest season (Harris 2002). Delays in response time are not expected because no detours or road closures would occur during construction. In addition, the LOS for transportation would remain at its current level during project construction, suggesting that traffic delays and volumes would not differ substantially. LOS is discussed in Section 3.11, Transportation. Impacts to fire protection and emergency response are expected to be low.

Flammable fuels such as gasoline and diesel would be used to operate construction equipment. Chemicals, lubricants, and paint would be used to treat or protect material surfaces, and to clean and lubricate equipment. Although use of these products introduces the risk of accidents, the contractor would be required to prepare and implement safety and materials handling plans and procedures to ensure safety for workers and the public. A discussion of hazardous materials is

included in Section 3.6, Environmental Health. The safety measures would minimize to the extent practicable accidents and the requirements for fire and emergency medical service response.

The Plymouth Station is approximately 2 miles from the plant site and would provide the initial response to any incident at site. The Paterson Station, located approximately 11 miles from the site, would also respond immediately with its transport ambulance. Response time to an incident at the plant site would remain at approximately 15 minutes, although the fire chief notes that the response could be faster depending on the location of the volunteer firefighters at the time of the call (Harris 2002). Through mutual aid arrangements with other fire districts, 10 to 15 ambulances could respond to an incident at the PGF within 30 to 45 minutes, if required. District 6 expects to be able to handle the increase in demand that would be related to PGF construction (Harris 2002).

Operation. The combustion of natural gas to produce electricity has inherent safety hazards including fire, explosion, worker exposure to hazardous chemicals, and electric shock. The PGF would be designed and operated to meet all applicable safety codes. In addition, automatic fire control systems would include fire alarms and sprinklers in all spaces. Other specialized fire suppression equipment would be installed as appropriate, and the PGF would include a 2-million gallon storage tank for firewater.

With a maximum of 20 employees working during two or three shifts at the PGF during operation, the chance of traffic accidents would be less than during the construction period. With the required safety and fire suppression measures in place, little increase in need for fire services is expected. As a consequence, operation of the proposed project is expected to have a low impact on fire and emergency medical services. In the event of an incident, response times and the ability to handle a slight increase in demand would be the same as those described for construction.

Disaster Preparedness and Response

The PGF operator would be required to develop an emergency response plan describing how emergencies would be covered during both construction and operation. The plan would be reviewed by BCES, which provides disaster preparedness and response services, as described in Section 3.12.1.1.1, Disaster Preparedness and Response. With safety and fire response measures in place as described under Section 3.12.1.1.1, Fire and Emergency Medical Services, impacts on BCES are expected to be low. Fire District No. 6 would also be able to respond to an emergency. Resources at Fire District No. 6 are discussed in Section 3.12.1.1.1. As stated above, Fire District No. 6 and mutual aid responders could respond with 10 to 15 ambulances in case of an emergency. The buildings and equipment at the plant site range in height from 50 to 88 feet; the highest structure at the PGF, with the exception of the exhaust stack, would be the HRSG at 88 feet. However, fire district personnel would give priority to fire suppression and protection of occupied structures, which would include the control center and administration building. These priority structures would be one-story buildings. Fire District 6 currently has equipment adequate to access these structures (fire trucks with 36-foot ladders) but would require additional resources to fight fires on the tallest structures. Additional equipment would

be provided by mutual aid agencies as discussed above, whose response times to the PGF site could be on the order of 30 to 45 minutes.

Schools

Construction. As discussed in Section 3.13, Socioeconomics, few construction workers are expected to move their families to the local area for the short project timeline. Therefore, any impacts from the PGF would be minor and less than significant.

Operation. During operation, 20 employees would work at the PGF over two or three shifts. About 85 percent (17 employees) are expected to originate from the local three-county area (Benton, Franklin, and Umatilla Counties). An estimated three employees would be hired from outside the area and could move to the three-county area. Although none of the 17 locally hired employees are expected to move, a few of the local employees (e.g., three employees) moving closer to the PGF would result in a total of six employees and their families moving to a local school district. For its comprehensive planning projections, Benton County assumes an increase in student population based on the existing 0.41 students per dwelling unit in the Plymouth area. This assumption would result in 2 or 3 additional students associated with the PGF operation. A more conservative projection of 1 or 2 children per family would result in 6 to 12 children attending local schools.² The schools generally have room for additional students, although some grade levels are at or over capacity. School expansions and changes in enrollment would occur by the startup of PGF operation in 2005. The potential addition of 6 to 12 students to one or more school districts would not result in a substantial increase in demand, and would result in a low impact.

Utilities

Electricity

Construction. Electricity required during construction would be provided by the Benton REA. A nearby Benton REA substation serves the adjacent Williams Co. compressor station and a Columbia River pumping station west of the site. Maximum electricity demand during construction is expected to be 500 kilowatts (kW) during the 40-hour work week. During nonworking hours, electricity would be used for lighting for security purposes. The Benton REA has adequate power to provide for electrical needs during construction. If the local distribution is not available or interrupted for some reason, portable gas/diesel electric generators or self-contained construction equipment such as engine-driven welders could be used. Impacts to electrical capacity during construction would be low.

Operation. The Benton REA or BPA would provide startup power and an estimated 2 megawatts (MW) of standby power for times when the PGF is temporarily out of service for maintenance and other reasons. An emergency diesel generator would also offer backup power if needed. During startup, the combustion turbine generator would be operated as a motor to

² Employees also may move closer to the PGF and remain within the same school district (e.g., move from Kennewick to Plymouth and remain in the Kennewick School District).

accelerate the turbine to operating speed. The turbine would be fired, and the generator would begin providing power to the transmission system. PGF would supply its own power when operating.

PGF would be interconnected to the BPA electric grid 0.6 mile to the north of the plant site. At a 97 percent capacity factor, the PGF would generate approximately 2.6 million megawatt (MW) hours of electricity annually and approximately 78.3 million MW hours of electricity over a 30-year operational life. The plant would have low impacts on electrical capacity during startup and down time.

Natural Gas

Construction. Natural gas would not be used during construction of the PGF, so there would be no impacts to natural gas supplies.

Operations. The PGF would be a natural gas-fired, combined cycle facility. Natural gas would be supplied to the project during operations through a direct pipeline connection with the Williams Co. compressor station, located adjacent to the south side of the proposed plant site. Williams Co. would construct and operate the gas supply pipe from their mainline to the plant site. Plymouth Energy would enter into gas supply contracts with one or more gas suppliers and/or marketers who have offered to sell gas. Impacts on natural gas supplies are discussed in Section 3.5, Energy and Natural Resources.

PGF would not connect to Cascade Natural Gas Company facilities, and would not cause any impacts on its facilities or natural gas supplies.

Water

Construction. Water needs during construction would be provided from a groundwater well unless rights will have been transferred to Plymouth Energy. A small-volume water well would be installed onsite for potable water to be used by workers for drinking and other personal use. The transferred water right would allow water to be used for construction. Additional discussion about the transfer of water rights is provided in Section 3.3, Water. Impacts on water are expected to be low.

Operations. Water for plant operations would be provided from the same sources as during construction. In addition, a potable water supply to serve the site employees would be installed. According to the Washington Department of Health (2002), the water supply serving the plant site employees would be classified as a public water system. Based on the estimated number of employees at the plant site, the water system is classified as a Group B public water system (Washington Department of Health 1995). Transmission, storage, and treatment of water would be in accordance with Washington Department of Health regulations. Potable water may be treated through the plant's treatment system or through a dedicated potable water treatment system. Impacts on the potable water supplied for employee use are expected to be low.

The proposed project does not presently assume any water use from the Plymouth Water District, so there would be no impacts to the district or its water supplies. If needed, the Plymouth Water

District would be able to provide both domestic and operations water supply for the PGF (Lear 2002). Water lines would need to be installed from the current service area to the PGF.

Solid Waste

Construction. Solid waste materials generated during construction would be stored in buildings or work areas and disposed of in an approved manner by the contractor; therefore, no impacts on the local solid waste contractor are anticipated. Approximately 150 tons of solid waste would be generated during construction, but its impact on the landfill capacity available in the region is expected to be low.

Operations. The combustion process of electricity generation in a gas-fired power plant produces no direct solid waste. Since hazardous materials resulting from PGF maintenance would be low volume and disposed of by the maintenance contractor, no additional local waste services would be required for disposal of hazardous wastes. During maintenance, large pieces of machinery from the turbines or heat recovery steam generator (HRSG) would be removed by the maintenance contractor and recycled to the vendor, recycled as salvage, or discarded in an appropriate landfill. Impacts are expected to be low.

As described in Chapter 2, Project Description, some solid wastes would result from routine PGF operation and maintenance. Solid waste would be composed of one small dumpster per week consisting of office paper, shipping cartons and pallets, used filters, small machine parts, and similar routine maintenance items. The small volume of nonhazardous solid waste generated by routine operations would be periodically collected by the local solid waste company (Sanitary Disposal, Inc.). The volume of the nonhazardous waste is not expected to require this contractor to require additional resources (trucks), nor is it expected to significantly deplete local landfill capacity. Therefore, impacts on local waste disposal utilities are expected to be low.

Telephone

Telephone service during PGF construction and operation would be provided by Verizon, which provides service to the area. Impacts to the telephone utility would be low.

Sanitary Sewer/Septic System

Construction. Because sanitary sewer service is not currently available at the plant site, sanitary cans and restroom facilities in construction offices would be provided and maintained as needed as temporary restroom facilities during construction. No impacts to sanitary sewers or septic systems would occur.

Operations. A septic system and drainfield for disposal of sanitary wastes generated by plant workers would be built onsite. The septic system would be designed to support a maximum work force of 20 persons. Under normal operating conditions, the largest single shift would have 12 to 14 employees. Total employment would be 20 persons working two or three shifts. If the septic system is properly built and maintained, impacts to groundwater would be low. See Section 3.3 for more discussion of impacts to groundwater.

Stormwater

Construction. Stormwater runoff during construction would be controlled by the slope of excavations, and the use of silt fences or straw or hay bales and a stormwater retention pond. Precipitation in the site area averages 8 inches annually, so adverse impacts from stormwater runoff would be low. A stormwater utility does not exist in the site area around the plant, so there would be no impacts to a stormwater utility.

Operation. During PGF operation, stormwater runoff from structures and paved areas would be collected and piped to a stormwater pond onsite. A portion of the water may be used as makeup water to the cooling tower. The remainder would evaporate. Impacts from stormwater runoff would be low, and there would be no impacts on a stormwater utility.

3.12.2.3.2 Transmission Interconnection

Impacts resulting from construction and operation of the transmission interconnection would be the same as described under Section 3.12.2.3.1 for Law Enforcement, Fire Protection and Emergency Services, Disaster Preparedness and Response, and Electricity. The other elements would not apply.

3.12.2.3.3 Access Road

Construction and operation impacts attributable to the access road would be same as described under Section 3.12.2.3.1 for Law Enforcement, Fire Protection and Emergency Services, and Stormwater. There would be no impacts on the other topics discussed, including Emergency Preparedness and Response, schools, and other utilities.

3.12.2.4 Alternate 230-kV Transmission Interconnection

Impacts due to the alternate 230-kV transmission interconnection would be the same as those that occur due to the proposed transmission interconnection, because the 230-kV line is located in the same physical location as the proposed 500-kV line.

3.12.2.5 Alternate Benton PUD/BPA Transmission Interconnection

Construction of the alternate Benton PUD/BPA transmission interconnection would require several power outages. Interruptions in electric service would be short to allow for connection of a temporary bypass in the transmission interconnection. Customers who would be affected would be notified in advance, and the impact resulting from the interruption would be low.

Other construction and operation impacts would be same as described under Section 3.12.2.3.1 for Law Enforcement, Fire Protection and Emergency Services, Disaster Preparedness and Response, and Electricity. There would be no impacts on the other topics discussed, including schools and other utilities.

3.12.2.6 Access Alternative

Impacts attributable to improvement and use of the alternate access roads would be same as described under Section 3.12.2.3.1 for Law Enforcement, Fire Protection and Emergency

Services, and Stormwater. There would be no impacts on the other topics discussed, including Emergency Preparedness and Response, schools, and other utilities.

3.12.3 CUMULATIVE IMPACTS

Projects in the vicinity of the PGF that are either (1) in the review process, (2) approved but not yet constructed, or (3) under construction but not completed, and have potential cumulative impacts on the public services and utilities when combined with the PGF include the following:

- Hermiston Power Project
- Wallula Project
- Schultz-Hanford BPA transmission line
- Wanapa Energy Center
- Motor Speedway
- Hanford Vitrification Plant

The Schultz-Hanford BPA transmission line and the Wallula Project are not analyzed for cumulative impacts on public services and utilities because their construction periods were indeterminate in June 2002.

The remaining four projects, in combination with the PGF, would result in cumulative impacts on public services and utilities due to the influx of workers during the daytime (and overnight in some cases) attributable to overlapping construction periods. Services would be affected due to the temporary increase in area population and the need to provide law enforcement, fire protection and emergency services, and other public services and utilities to that population. Housing supply (temporary, including RV parks, hotels, and permanent) could be stressed, although additional patrons would represent additional revenue and therefore a benefit to local suppliers. The construction periods for the five projects including the PGF would overlap. The PGF's contribution to this cumulative impact would be small when compared to other projects. See Section 3.13, Socioeconomics, for more information on employment levels associated with these projects.

3.12.4 SUMMARY OF IMPACTS

Adverse impacts on law enforcement, fire protection and emergency services, disaster preparedness and response, schools, electricity service, natural gas service, water service, solid waste service, telephone service, sanitary sewers/septic systems, and stormwater are expected to be less than significant for both construction and operation of the PGF.

3.12.5 MITIGATION MEASURES

No mitigation measures are proposed because no significant impacts would result from the PGF.

3.12.6 REFERENCES

Avey, Jeryl, business sales consultant, Verizon. 2002. Personal communication with Betty Renkor of URS Corporation. March 26.

Benton County. No date (n.d.). *Benton County Comprehensive Land Use Plan*.

Benton County Emergency Services Executive Board. 2002. *Draft Benton County Comprehensive Emergency Management Plan: Basic Plan*.

Benton County Emergency Services. 2002. *Benton County Emergency Services, Emergency Management and Southeast Communications*. Available at <<http://www.bces.wa.gov/>>.

Benton County, Washington. 2002. *Sheriff*. Available at <<http://www.co.benton.wa.us/html/sheriff.htm>>.

Benton Rural Electric Association. 2002. *People with Energy Working for You, and Benton PUD History*. Available at <<http://www.bentonrea.org/>>.

Bonneville Power Administration. 2002. *About BPA*. Available at <<http://www.bpa.gov/Corporate/KC/who/>>.

Brown, Kelly, secretary, Paterson School District #50, Paterson, Washington. 2002. Personal communication with Betty Renkor of URS Corporation. March 25.

Brown, Amy, trooper, Washington State Patrol, Union Gap, Washington. 2002. Personal communication with Betty Renkor of URS Corporation. April 1.

Cascade Natural Gas Corporation. 2002. *Service Area Map*. Available at <<http://www.cngc.com>>.

City University. 2002. *Locations*. Available at <<http://www.cityu.edu/locations/home.asp>>.

Columbia Basin College. 2002. *Welcome to CBC*. Available at <<http://www.cbc2.org/>>.

Eckert, Bob, Business Manager, Kennewick School District # 17, Kennewick, Washington. 2002. Personal communications with Betty Renkor of URS Corporation. February 21 and March 18.

Garza, Rick, Benton County Emergency Services Department, Richland, Washington. 2002. Personal communications with Betty Renkor of URS Corporation. February 22, March 15, and March 20.

Good Shepherd Medical Center. 2002. Available at <<http://www.oregontrail.net/gsch/>>.

Harris, Bill, Fire Chief, Benton County District #6, Paterson, Washington. 2002. Personal communications with Betty Renkor of URS Corporation. February 21, March 28, and April 8.

Jewett, Mike, manager, Sanitary Disposal Inc., Hermiston, Oregon. 2002. Personal communication with Betty Renkor of URS Corporation. March 21.

Kissler, Charles, Lieutenant, Benton County Sheriff's Office. 2002. Personal communication with Betty Renkor of URS Corporation. February 22.

Lear, Judy, Plymouth Water District, Plymouth, Washington. 2002. Personal communication with Betty Renkor of URS Corporation. March 18.

Office of Superintendent of Public Instruction. 2002. *Find It @ OSPI*. Available at <<http://www.k12.wa.us/findit/>>.

Sealock, Wayne, resource conservation specialist, Kennewick School District # 17. 2002. Personal communication with Betty Renkor of URS Corporation. February 21.

Sutton, Steve, lieutenant, Washington State Patrol, Kennewick office. 2002. Personal communication with Betty Renkor of URS Corporation. April 9.

Thompson, Al, Lieutenant, Benton County Sheriff's Office. 2002. Personal communication with Betty Renkor of URS Corporation. April 16.

Washington Department of Health. 2002. Letter to Benton County Planning Department, Plymouth Generating Facility Comments on Scope of Work and Environmental Impact Statement. January 24.

Washington State University Tri-Cities. 2002. Available at <<http://www2.tricity.wsu.edu/>>.

Wilson, Jean, Umatilla School District, Umatilla, Oregon. 2002. Personal communication with Betty Renkor of URS Corporation. March 15.