

**COMPREHENSIVE PLAN**

**APPENDIX 8**

**UTILITIES INVENTORY AND EXISTING CONDITIONS**

**December 30, 1996**



## APPENDIX 8

### UTILITIES INVENTORY AND EXISTING CONDITIONS

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## 8.1 ELECTRICITY

San Juan County relies on electricity generated primarily in the Pacific Northwest and transmitted to the San Juan Islands by the Bonneville Power Administration (BPA) and Puget Power. The BPA was created by Congress in 1937 to act as an agent to market power from Bonneville Dam. BPA has been designated to market power from the 29 additional federal dams located within the Northwest. The BPA does not build or own dams or power plants, but does operate the nation's largest network of long-distance high-voltage transmission lines. The BPA and Puget Power electricity is sold to the Orcas Power and Light Company (OPALCO) at BPA's point of delivery on Lopez Island. OPALCO is the sole electric service provider in San Juan County.

OPALCO is a member-owned, private, non-profit Rural Electric Administration (REA) Cooperative which provides local electric service to its members in San Juan County. OPALCO was formed in 1937 and currently maintains offices in Eastsound, Friday Harbor, and on Lopez Island, with headquarters in Eastsound. OPALCO is primarily an electric distribution utility at present, distributing power via submarine cables to members on twenty islands, but retains a small amount of generation capacity for emergency purposes at its original generation plant in Eastsound.

San Juan County is not connected to the extensive network of natural gas lines which serve the western United States, but alternative fuels, such as liquid propane and diesel, can be obtained and used as an alternative to electric power service.

### 8.1.1 Existing Conditions

According to OPALCO, existing electric utility facilities in San Juan County have adequate capacity to serve existing loads. OPALCO maintains a comprehensive system plan to expand capacity as load growth occurs. Table 1, *below*, lists the location and capacities of each substation in OPALCO's transmission network.

**Table 1. Capacity of OPALCO Electric Facilities**

<b>Substation</b>	<b>Location (Parcel No.)</b>	<b>Capacity (MW)</b>
No. 1 Decatur	152232002	0.75
No. 2 Lopez	252634004	12/16/20
No. 3 Shaw	262844002	3.75
No. 4 Orcas	262111003	7.5
No. 5 Friday Harbor	351391410	12/16/20
No. 6 Blakely	162842001	3.0
No. 7 Roche Harbor	462441001	12/16/20
No. 8 Olga	351151052	11.25
No. 9 Thatcher	150414002	4.5
No. 10 Eastsound	271421004	12/16/20

Table 2, *below*, lists the number of service accounts by District for 1994.

**Table 2. OPALCO Electricity Service Accounts—1996**

<b>Island</b>	<b>Accounts</b>
<b>District 1</b>	
San Juan	4,682
Henry	42
Pearl	32
Brown	41
<b>SUBTOTAL</b>	<b>4,797</b>
<b>District 2</b>	
Orcas	3,073
Obstruction	11
Crane	47
<b>SUBTOTAL</b>	<b>3,131</b>
<b>District 3</b>	
Lopez	1,764
Shaw	205
Blakely	141
Decatur	183
Center	85
Canoe	6
Charles	3
<b>SUBTOTAL</b>	<b>2,387</b>
<b>TOTAL</b>	<b>10,315</b>

### **8.1.2 Capacity Needs**

An analysis of capacity development necessary to meet future demand is contained in OPALCO's long range plan entitled *Power Requirement Study, 1992*, Orcas Power and Light Company, and is referenced here for planning purposes.

Detailed analyses have been and will be conducted by OPALCO on the basis of planned land use. Planned construction of electric utility facilities serving local load areas is based on load rather than time (years). Utilities determine the need for expanded or new electric utility regional transmission network facilities on the basis of established planning standards which define required system performance under specified conditions including load and generation levels, equipment outages, weather, and equipment ratings. As the electric load within San Juan County grows, OPALCO will need to add new electrical facilities to increase the capacity of its distribution system. OPALCO estimates an average annual increase of 3.1 percent for residential accounts and 3.5 percent for commercial accounts.

## 8.2 TELECOMMUNICATIONS

### 8.2.1 Telephone—Standard Service

The Washington Utilities and Transportation Commission (WUTC) regulates telecommunications utility providers to ensure that safe and reliable service is provided to consumers at reasonable rates.

Local standard telephone service to San Juan County is provided through Pacific Telecom Communications, Inc. (PTI) which is based in Vancouver, WA. PTI's service is made possible through a fiber optic cable network which connects many of the islands together and also provides service for many residents who "telecommute," or run their businesses from their homes. Currently service is extended to Blakely, Brown, Center, Crane, Decatur, Henry, Lopez, Obstruction, Orcas, Pearl, San Juan, and Shaw Islands. PTI does provides a choice of long-distance carriers for telephone calls made to places located outside of San Juan County. PTI offices are located in Gig Harbor, Washington. PTI is currently in the process of developing a long-range regional service plan. Table 3, *below*, shows the number of standard telephone service accounts per island for 1995.

**Table 3. Standard Telephone Service Accounts on San Juan, Orcas, and Lopez Islands.**

<b>Island</b>	<b>Office</b>	<b>Accounts</b>
San Juan	Friday Harbor	5,970
Orcas	Eastsound	3,803
Lopez	Lopez Village	2,391
<b>TOTAL</b>	<b>San Juan County</b>	<b>12,164</b>

The technology used by PTI Communications facilities in San Juan County means that capacity is not a problem for telephone companies providing service locally. Geographic isolation and comparatively small resident populations has, to date, inhibited the extension of telephone service to some islands within San Juan County, such as Stuart and Waldron Islands.

PTI plans for growth within its service area by projecting growth based on known development activity, past growth history, current County land use designations, and existing system capacity. Based on these studies, expansion projects are planned and included in annual capital plans. Five-year forecasts of capital spending requirements needed to address projected growth are made in PTI's capital plan.

### 8.2.2 Telephone—Wireless Service

Nationally, the Federal Communications Commission (FCC) regulates the airwaves and the personal wireless communications industry and is responsible for issuing construction permits for transmission facilities and licenses to operate wireless systems. The FCC licenses personal wireless communications companies to operate within strict guidelines. The licenses grant the right to use specific radio frequencies to provide wireless telephone service. The FCC awards only two operating licenses to cellular communications companies within Rural Service Areas (RSA's) and the San Juan County RSA is served by AT&T Wireless Services and Airtouch Cellular (U.S. West Cellular).

Local governments regulate the development of the wireless communications network by specifying where facilities can locate, applying buffering and setback requirements, etc. Local governments have been preempted by federal case law from regulating facilities covered by the Federal Aviation Administration (FAA). The FAA reviews the location and height of proposed towers to prevent

interference with operations of airports and flight paths. The FAA regulates proposed towers that exceed 200 feet and smaller towers located within 20,000 feet of a major airport and 10,000 feet of a general aviation airport. The FAA does not have the authority to deny an FCC construction permit, but it can cite a proposed tower as a hazard to navigation. (See the discussion on Airport facilities in Element II-D Transportation.)

Where feasible, personal wireless facilities use existing tower structures, poles, and buildings where antennas can be mounted on rooftops and electronic equipment located within the building itself.

Personal wireless communications facilities are not classified as public utilities or essential services.

### **8.3 CABLE TELEVISION**

State and federal laws do not allow for exclusive cable franchises in public rights-of-way. This means that any franchised cable company can serve the County; however, exclusive cable providers are allowed to serve private properties, such as apartment complexes and condominiums. Beyond this, cable companies are not regulated as a utility by the state. San Juan County regulates cable companies through road franchise agreements.

A new federal law requires the FCC to adopt broad-ranging regulation to implement its provisions. The FCC now needs to define its new cable regulatory authority and the degree to which it will preempt local authority. Two important procedures at the FCC level include:

- Establishment of standards for cost-based rates for installation and lease of equipment (converters, additional outlets, remote controls), and
- Establishment of procedures for reducing unreasonable rates and issuing refunds.

Cable television service is available only in the Friday Harbor and Eastsound areas. Century Island Association is a privately owned franchise that provides cable television service to San Juan Island residents living in and near the Town of Friday Harbor. As of October 1996 Century Island Association provided service to 1,049 customers in or near the town. Sun Country Cable is a privately owned franchise that provides cable television service to Orcas Island residents living near Eastsound. As of October 1996 Sun Country Cable provided service to 686 customers.

### **8.4 COMMUNICATIONS**

Antennae and towers atop Mt. Constitution on Orcas Island are used to provide communications and electronic controls. As telecommunications technology and demands change service providers must retain the ability to expand existing and build new antennae and towers for operational purposes.

Mt. Constitution Sites, Inc., owns 160 acres of land within Moran State Park and leases communications towers to approximately 33 users. One 400-foot tower, one 235-foot tower, and one 40-foot tower are located in the northeast corner of this property. In addition, one 500-foot tower is being planned for this area. East of the 160-acres of private property mentioned above the U.S. Coast Guard leases a one acre site from the Washington State Parks and Recreation Commission (SPRC) and operates a 100-foot tower with microwave dishes to monitor small vessels. KVOS leases a one acre site from the SPRC at the 2,409 summit of Mt. Constitution and operates a transmitter facility and a 150-foot tower. Washington Department of Transportation (DOT) leases a one acre site from SPRC southwest of the KVOS site and operates two 70-foot towers. The U.S. Forest Service also leases one acre from SPRC and operates two 70-foot towers. The University of Washington also operates a seismographic telemetry station at this site.