



# SAN JUAN COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT

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## MEMO

**REPORT DATE:** April 25, 2022

**TO:** San Juan County Planning Commission

**CC:** David Williams, Department of Community Development (DCD) Director

**FROM:** Sophia Cassam, Planner II, DCD *SC*

**SUBJECT:** 2036 Comprehensive Plan Update  
Draft Section B, Element 8, Utilities

**DISCUSSION:** May 6, 2022

**ATTACHMENTS:** A. Draft Section B, Element 8, Utilities  
B. Comments from OPALCO and the Agricultural Resources Committee

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### PURPOSE

To provide the draft Comprehensive Plan (*Plan*) Section B, Element 8, Utilities (Utilities Element) to the Planning Commission for review and to prepare a public hearing draft.

### PUBLIC COMMENTS

Please send all public comments to [compplancomments@sanjuanco.com](mailto:compplancomments@sanjuanco.com). Please do not copy the County Council, Planning Commission members, or County Staff. Written public comments received by 12pm on May 5 will be provided to the Planning Commission prior to the meeting. Please focus public comments on the issues and options contemplated in this report.

All comments received on the Utilities Element are available on the County website at:  
<https://www.sanjuanco.com/1306/Comprehensive-Plan-Elements>

### BACKGROUND

The Utilities Element is a mandatory component of a Comprehensive Plan prepared in accordance with the WA Growth Management Act (GMA). RCW 36.70A.070(4) requires “a utilities element consisting of the general location, proposed location, and capacity of all existing and proposed utilities, including, but not limited to, electrical lines, telecommunication lines, and natural gas lines.” The Utilities Element contains background information, goals, and policies for electricity, propane, and communications services. Because there are no natural gas services in the County, this element discusses propane, a gas utility common throughout the islands, instead. *Plan* Appendix 8, the Utilities Inventory, includes required information on the locations and capacities of utility facilities.

The draft Utilities Element is provided in Attachment A. This draft of the Element shows the proposed changes in strikeout and underline format (~~Removal~~, Addition). The proposed changes reflect the work of the Planning Commission and County Council on goals and policies during the *Plan* update. Public comments were

incorporated into the draft Utilities Element, including information from Orcas Power and Light Cooperative (OPALCO) and comments from the Friends of the San Juans.

The Planning Commission and County Council each completed two rounds of review in 2019 and 2020. The Planning Commissioners last reviewed this element at the February 21, 2020, meeting where they made changes to the draft, most of which were accepted by the County Council in spring of 2020 and are reflected in the current draft.

## **UTILITIES IN THE *PLAN* VISION**

The Vision adopted in 2018 contains language specifically referencing utilities. The Energy and Resources section states, “Our community strives for energy independence and zero waste. We use renewable energy, materials, and natural resources on a sustainable basis...” The Vision for communications states, “advanced communication infrastructure is encouraged.” The Utilities Element should support the *Plan* Vision. When reviewing the draft Utilities Element, the Planning Commission should consider whether the existing draft goals and policies will bring the County closer to the Vision.

## **CHANGES SINCE LAST PLANNING COMMISSION REVIEW**

The draft in Attachment A contains additional comments and updated information submitted by OPALCO and the Agricultural Resources Committee (ARC) since the last review of the draft. The comments are incorporated into the draft for the Planning Commission’s consideration. They are shown in green strikeout/underline. The comments are also available as submitted in Attachment B.

OPALCO’s suggestions update old information in the Utilities Element and the Utilities Inventory. They do not suggest any new changes to the goals or policies. Staff is supportive of including OPALCO’s suggestions in the draft to ensure that current information is presented. The draft Utilities Element also contains the following new policy proposed by the Agricultural Resources Committee under goal 6 on page 10:

Ensure that solar installations are sited and designed in a manner that minimizes impacts on agricultural land, allows for flexibility in future agricultural activity and maximizes potential for multiple benefits from agrivoltaics.

At the May 6 meeting, the Planning Commission can decide whether to accept OPALCO’s and the ARC’s proposed changes.

## **PUBLIC HEARING DRAFT**

At the meeting on May 6, 2022, the Planning Commission will review the draft Utilities Element to agree on a draft to use for the future *Plan* public hearing. The draft Element can be brought forward as-is (Attachment A), or the Planning Commission can discuss and make any edits or additions before agreeing on a public hearing draft.

## **NEXT STEPS**

After the Planning Commission makes its edits to the draft Utilities Element the draft will become the public hearing draft. This is the draft that will be brought forward at the Planning Commission’s public hearing on the *Plan*. At the public hearing, the Planning Commission will hear public testimony and, after deliberations, make its final edits to the draft *Plan* to be recommended to the County Council.

**COMPREHENSIVE PLAN  
SECTION B, ELEMENT 8**

**DRAFT**

**UTILITIES ELEMENT**

**November 2005**

**April 25, 2022**

**DRAFT NOTE:**

**OPALCO and ARC suggestions shown in green**

**DRAFT**

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**ELEMENT 8**

**DRAFT  
UTILITIES ELEMENT**

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1 **8.1 INTRODUCTION**

2  
3 **8.1.A Purpose**

4  
5 ~~The purpose of the Utilities Element is to set goals and policies which provide guidelines for the~~  
6 ~~provision of utility services in San Juan County, and to facilitate coordinated, cost-effective~~  
7 ~~planning and construction by the County and by individual utility service providers in a manner~~  
8 ~~consistent with the goals and policies set forth in this *Plan*. This element consists of General Goals~~  
9 ~~and Policies, Utility Specific Goals and Policies, and a Utilities Inventory in Appendix 8.~~

10 The Utilities Element includes the current and projected conditions of utilities in San Juan County. Utility  
11 services included in this Element are electricity, propane, telecommunications, internet and cable. San  
12 Juan County does not provide utility services; therefore, this Element relies on information shared by  
13 utility providers.

14  
15 This Element establishes goals and policies to guide the provision of utility services. Goals and policies  
16 aim to facilitate coordinated, cost-effective provision of services, planning, and construction by utility  
17 service providers in a manner consistent with the goals and policies of other elements of the  
18 *Comprehensive Plan (Plan)*. This document also identifies opportunities and challenges for utility services  
19 through the 2036 planning period. These opportunities and challenges stem from projected population  
20 increases, new technologies, and climate change.

21  
22 The Utilities Element reflects certain key assumptions:

- 23  
24 1. Utility providers are the best identifiers of utility problems and the solutions needed to overcome  
25 them;\_;  
26  
27 2. Level of service (LOS) standards, concurrency, and capacity requirements do not apply to utility  
28 services addressed in this element;\_;  
29  
30 3. Privately owned utilities are not public facilities although they provide a public service. Each utility  
31 bears the responsibility for providing services to San Juan County residents within the guidelines  
32 of their own policies and in a manner consistent with the regulatory bodies having jurisdiction  
33 over them;\_ and  
34  
35 4. County residents ultimately bear the majority of the costs associated with the provision of utility  
36 services through utility rates, taxes, land development costs, and impacts to environmental and  
37 aesthetic values.  
38

39 This Element supports the *Plan* Vision and fulfils the requirements of the Growth Management Act (GMA)  
40 for utilities planning. Regarding energy, the Vision states, “Our community strives for energy  
41 independence...we use renewable energy.” Regarding communication systems, the Vision affirms that  
42 “Advanced communication infrastructure is encouraged...we encourage new ideas and new technology...  
43 [and] communication systems support our economy.”

44  
45 The Utilities Element is oriented toward meeting the needs of the people of the County in the midst of  
46 growth, climate change, and ever-advancing technologies. The GMA calls for comprehensive plans to  
47 include “the general location, proposed location, and capacity of all existing and proposed utilities” in

1 RCW 36.70A.070(4). By fulfilling the GMA requirement, the County positions itself to make effective use  
2 of existing utilities infrastructure, and to be responsive to inevitable change. Together, this Element and  
3 Appendix 8, Utilities Inventory meet this requirement. Appendix 8 contains the in-depth inventory of  
4 utilities.

## 5 **8.2 RELATIONSHIP TO OTHER PLAN ELEMENTS**

6  
7 The siting and provision of utility services interacts with other topics in the *Plan*. Utilities information can  
8 be found in both the Utilities and Capital Facilities Elements and Inventories. Water and sewer utilities  
9 are discussed in the Capital Facilities Element and Inventory, and are subject to concurrency requirements  
10 and Level of Service (LOS) standards. Services discussed in the Utilities Element and Inventory are not  
11 subject to concurrency requirements or LOS standards. The siting of utilities facilities, such as propane  
12 storage, electrical substations, and telecommunication towers, is a land use issue. Telecommunication  
13 services are closely tied to issues discussed in the Economic Development Element. The Utilities Element  
14 must be consistent with other *Plan* elements. No element can be enacted independently without  
15 consideration of other elements.

## 16 17 **8.3 CURRENT CONDITIONS AND FUTURE OUTLOOK**

18  
19 The following subsections summarize existing utilities conditions and provide a look at what the future  
20 may hold for the provision of those services. The outlook is based on the assumption that the County  
21 will grow according to the population projections in *Plan* Appendix 1. Both existing and future utility  
22 services are and will be operating in the context of climate change and the development of new energy  
23 and communication technologies.

### 24 25 **8.3.1 Electricity**

#### 26 27 Current Conditions

28  
29 Orcas Power and Light Co-operative (OPALCO) provides electricity in the County. The majority of  
30 electricity is sourced from hydropower on the mainland. Bonneville Power Administration and Puget  
31 Power generates and distributes it. Local renewable energy sources, such as solar power, currently  
32 generate about ~~one~~ three percent of electricity. In ~~2019~~2021, OPALCO served about ~~1415,913~~1415,913-000  
33 accounts on 21 islands. OPALCO estimates an annual increase of 0.5 percent for the number of residential  
34 accounts and 2.0 percent for commercial accounts.

#### 35 36 Energy Outlook

37  
38 Globally, we face a climate crisis induced by human-generated greenhouse gas emissions. In the Pacific  
39 Northwest, we have observed wildfires, drought, lack of snowpack, and increased ocean acidification in  
40 recent years<sup>1</sup>. Governor Inslee's Executive Order 14-04 includes key areas for addressing climate change,  
41 including reducing carbon emissions and improving energy efficiency<sup>2</sup>. San Juan County can reduce  
42 carbon emissions by increasing reliance on electricity if it comes from clean, renewable sources, and is  
43 used as efficiently as possible. Transportation and home heating/cooling are two major sources of energy

1 <https://fortress.wa.gov/ecy/publications/documents/1902031.pdf>, pg. x.

2 [https://www.governor.wa.gov/sites/default/files/exe\\_order/eo\\_14-04.pdf](https://www.governor.wa.gov/sites/default/files/exe_order/eo_14-04.pdf)

1 expenditure in the County (and anywhere else). Thirty five percent of county residential energy use is for  
2 heating, and over half of energy use is for transportation, which accounts for ~~41-45~~ percent of Washington  
3 State fossil fuel emissions<sup>3</sup>. Electric transportation costs about 75 percent less than fossil fueled  
4 transportation, helping keep dollars in the local economy<sup>4</sup>.

5  
6 The Washington State 2021 Energy Strategy estimates the electrification of transportation and heating  
7 ~~are expected to~~ will nearly increase load by 37 percent by 2030 double load by 2050. Over this same period,  
8 the electrification of transportation and heating is estimated to ~~and~~ reduce greenhouse gas emissions by  
9 72 percent by 2050<sup>5</sup>. The number of Electric Vehicles (EVs) in the county increased by 65 percent in 2019  
10 as they became less expensive and provided longer ranges<sup>6</sup>. The State has reinstated tax breaks for non-  
11 luxury electric vehicles in an effort to increase their prevalence and reduce transportation emissions.

12  
13 In 2019, Washington State Ferries (WSF) announced that it would begin transitioning its diesel ferry fleet  
14 to hybrid-electric. The anticipated 2030 ferry electrification will add load as well. Ferry electrification is  
15 an effort to drastically reduce greenhouse gas emissions. Currently, WSF generates fifty percent of  
16 greenhouse gas emission from working boats in Puget Sound (220,000 metric tons annually), despite only  
17 making up only six percent of such boats<sup>7</sup>.

18  
19 While power in Washington may be cleaner than in other states that rely heavily on fossil fuels to generate  
20 electricity, hydropower is not without environmental impact. Chinook Salmon populations have been in  
21 decline in both dammed and undammed river systems in the northwest. Dams that generate hydropower  
22 are harmful to Chinook Salmon populations, which Orca Whales in the Salish Sea rely on Chinook as a food  
23 source. That said, WA hydro power is cleaner than solar, wind, coal and natural gas and most other sources  
24 of energy, and helps reduce the impacts of climate change on ocean warming and acidification, which is  
25 driving ecosystem collapse, impacting thousands of species<sup>8</sup>. Hydro is an essential resource in the 2019  
26 WA Clean Energy Transformation Act (CETA) and WA 2021 Energy Strategy, for firming intermittent  
27 renewables like solar and wind.

28  
29 There is a push toward energy independence from the mainland. Renewable energy resource costs have  
30 been falling, while mainland pricing has been slowly rising. The point at which they cross is called *grid*  
31 *parity*. In other words, grid parity is the point at which an emerging technology becomes economically  
32 viable. At that point, the emerging technology has increasing cost savings compared to the legacy  
33 technology. Once a resource is at grid parity or better, it can be added into OPALCO's energy portfolio to  
34 replace or moderate the cost of legacy energy sources. OPALCO expects that local renewable energy  
35 resources will become competitive with mainland power wholesale electric rates and reach grid parity  
36 around ~~2025~~2028. OPALCO is transitioning to a more locally generated energy mix, which could include  
37 member-generated energy (solar, wind, micro-hydro), Community Solar, utility-scale solar, tidal energy,  
38 and other new technologies. OPALCO expects that up to fifty percent of County energy ~~will~~ could be  
39 generated locally by 2040<sup>9</sup>.

3  
3  

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<sup>3</sup> OPALCO analysis, US Department of Energy, WA Department of Ecology

<sup>4</sup> OPALCO analysis, US Department of Transportation, WA State Department of Transportation

<sup>5</sup> The Brattle Group

<sup>6</sup> WA State Department of Transportation

<sup>7</sup> <https://medium.com/wagovernor/clean-transportation-advances-with-hybrid-electric-ferries-85d2db1f902b>

<sup>8</sup> UN IPCC [https://archive.ipcc.ch/pdf/special-reports/srren/SRREN\\_FD\\_SPM\\_final.pdf](https://archive.ipcc.ch/pdf/special-reports/srren/SRREN_FD_SPM_final.pdf)

<sup>9</sup> OPALCO Integrated Resource Plan

1 The impacts from climate change, changing carbon emission regulations, and the restructuring of the  
2 electric transmission market throughout the Pacific Northwest will impact the electric grid serving the  
3 County. This may increase the potential for unplanned outages and rolling blackouts. The need for locally  
4 generated electricity from wind, solar, tidal, and other sources are vitally important to prevent economic  
5 disruption and preserve the County’s environment. The County Vision states, “Our community strives for  
6 energy independence...we use renewable energy.” To achieve this vision will require significant land and  
7 water areas to host local renewable energy and tidal power sites. Development of- Joint Use Wireless  
8 Facilities fostered the rapid development of reliable ubiquitous cellular service in the county, improving  
9 healthcare, emergency services, public safety communications and economic activity. County land use  
10 designations should be similarly reviewed and updated for siting renewables. To increase energy  
11 independence from the mainland will require predictable permitting processes, to ensure timely  
12 achievement of grant funding and site development. This is particularly so for agri-solar applications on  
13 Rural Farm Forest and Ag land. Just as improved wireless land use designations fostered rapid  
14 improvement of wireless services in the county, updating land use designations for local renewable energy  
15 sites can help accelerate achieving the vision of “energy independence.”

16  
17 Siting electric facilities serving locally generated electricity and its supporting infrastructure can enable  
18 the deployment of an electric ferry system and the electrification of the state’s transportation system.

19  
20 More information about the future of electricity in San Juan County can be found in OPALCO’s planning  
21 documents. OPALCO’s long-range plan contains an analysis of capacity development needed to meet  
22 future demands. Additionally, their four-year Construction Work Plan contains load forecasts and  
23 information on construction projects.

### 24 25 **8.3.2 Propane**

26  
27 There are no natural gas lines in San Juan County. The population relies heavily on propane. Propane  
28 tanks are not allowed on Washington State Ferries. Propane utility providers barge propane from the  
29 mainland to their distribution centers on San Juan, Orcas, and Lopez islands. The two propane providers  
30 in San Juan County are Inter-Island Propane and San Juan Propane. Inter-Island Propane recently  
31 established a facility on Orcas Island, which is subject to County inspection prior to starting operations.

32  
33 The demand for propane will likely increase as the County’s population increases. However, alternative  
34 renewable energy sources, such as home solar energy installations, and changes in State building code  
35 and greenhouse gas emission reduction requirements to meet WA State Greenhouse Gas targets for  
36 energy efficiency may reduce the per capita demand for propane in the future.

### 37 38 **8.3.3 Communications**

39  
40 San Juan County encourages the development of advanced communication infrastructure. Reliable, up-  
41 to-date communication services support everything from healthcare and public safety, to economic  
42 opportunity and modern lifestyles. Geographic isolation and relatively small resident populations have  
43 historically inhibited the extension of telecommunication services to some islands in the County. Today,  
44 Fiber and LTE are providing faster and more expansive communication services.

- 45  
46
  - 47 **Fiber:** The availability of fiber optic based services has grown extensively throughout the County in  
the past decade, meeting the growing needs of the electric grid, emergency communications, and

1 residential and business broadband and cell phone service. Approximately half of County addresses  
2 are located within a serviceable distance of existing fiber optic facilities. As demand for higher  
3 bandwidth and additional improvements are made to public infrastructure, the availability of fiber  
4 optic services are expected to continue to grow. Fiber is provided in San Juan County by Rock Island  
5 and Century Link.

- 7 ▪ **Voice over Internet Protocol (VoIP):** Anyone with a reliable internet connection can purchase VoIP  
8 service, which is becoming more common as internet access and speed increases. It is the  
9 predominant method for non-wireless voice communications around the nation, particularly for  
10 businesses. Rock Island is the primary provider of VoIP in the County.
- 11  
12 ▪ **Fixed Wireless - Long-Term Evolution (LTE):** LTE is a standard for wireless broadband  
13 communication for mobile devices and data terminals. It increases the capacity and speed using a  
14 different radio interface together with core network improvements. LTE utilizes cellular technology  
15 to provide high-speed data and voice service has been deployed throughout the County. It provides  
16 access to phone and internet where fiber is currently unavailable, including eighteen non ferry-  
17 served islands. Fixed wireless is primarily provided by Rock Island in San Juan County.
- 18  
19 ▪ **Fixed Wireless –Cellular Service:** All major cellular carriers have coverage to an extent in the  
20 County; however, the geography currently limits coverage in some areas. For some residents and  
21 visitors, lack of cell service poses a safety concern because it would be difficult to call for help in the  
22 case of an emergency. T-Mobile is the most extensive provider of cellular service in the County.
- 23  
24 ▪ **Plain Old Telephone Service (POTS):** The main provider of POTS is CenturyLink. Use of POTS has  
25 decreased in the recent years as consumers discontinue landline service or switch to VoIP.
- 26  
27 ▪ **Cable:** Cable internet and television services are available from CenturyLink, Zito Media, and POGO  
28 Zone in parts of Friday Harbor and Orcas Island. Use of cable services is declining as fiber and  
29 wireless broadband becomes more popular.

#### 31 **8.4 KEY CHALLENGES**

32  
33 The key challenges for utilities provided below are based on the utilities inventory in *Plan* Appendix 8 and  
34 the energy outlook. Considering the assessment of electricity, propane, and communications services,  
35 the utilities goals and policies in the following section put an emphasis on:

- 36  
37 ▪ Preparing to serve the County’s 2036 forecasted population in *Plan* Appendix 1;
- 38 ▪ Meeting energy and telecommunications needs within and outside of population centers;
- 39 ▪ Reducing greenhouse gas emissions;
- 40 ▪ Reducing environmental impacts of all forms of energy we use;
- 41 ▪ Achieving the vision of energy independence;
- 42 ▪ Increasing energy efficiency; and
- 43 ▪ Working with the challenges presented by the islands’ unique geography.

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## 8.5 GOALS AND POLICIES

Utilities goals and policies guide San Juan County’s actions affecting the provision of utility services. This section aims to result in meeting San Juan County’s current and projected needs for energy and communications in a way that is cost-effective, efficient, appropriate for the character of the islands, and responsive to climate change. These goals and policies are informed by the 2005 Utilities Element, other Plan elements, information from utilities providers, community feedback, and by state climate directives.

### **8.5.A General Goals and Policies**

The ~~G~~general ~~G~~goals and ~~P~~policies in this Element address the planning, location and siting of utilities;<sub>z</sub> services to new development;<sub>z</sub> and environmental protection. These issues are common among all utility services.

#### ~~8.2.A Long-range Planning~~

~~**Goal 1.** Goal: To e Coordinate planning efforts between San Juan the County and utility service providers and encourage the regular exchange of information plans, maps, and other pertinent information; to aid utility service providers in anticipating and responding to growth by establishing land use policies and regulations to direct and manage future growth; and to maintain consistency between utility service plans and San Juan County plans.~~

CLEAN: Coordinate planning efforts between the County and utility service providers and encourage the regular exchange of information to aid utility service providers in anticipating and responding to growth and to maintain consistency between utility service plans and County plans.

#### Policies (8.2.A.1-6):

1. Provide utility service providers with appropriate plans and mapped information to help establish a common eCounty-wide base map for utilities planning.
2. Obtain Mmaps and facility inventories, with text designating the approximate location of existing facilities and the general location of proposed new facilities, ~~will be obtained~~ from utility service providers and integrated them into the eCounty’s Geographic Information System (GIS).
- ~~3. Review the utility facilities inventory annually and provide updates on a biennial basis or as necessary.~~
- ~~3.~~ 4. Provide utility service providers with ~~annual updates and status reports~~ for the six year capital improvement financing plan to aid in their ability to coordinate necessary system improvements.
- ~~4.~~ 5. Cooperate with utility providers in siting facilities for new and alternative technologies to save money and promote reliability of existing utilities by conserving existing energy resources, while promoting a feasible conversion to energy-saving technologies.

1 ~~5. 6.~~ Cooperate with utility service providers in future comprehensive planning efforts, and in to  
2 evaluating actual patterns and rates of growth and comparing such patterns and rates them to  
3 demand forecasts.

4  
5 ~~8.2.B~~ Project Coordination

6  
7 ~~Goal 2. Goal: To a~~ Allow for the timely and cost-effective provision of utility services to eCounty  
8 residents by enabling inter-agency joint project planning; and ~~to~~ ensure the availability and use of utility  
9 corridors within public rights-of-way for the placement of utility service facilities.

10  
11 Policies (8.2.B.1-4):

- 12  
13 1. Facilitate inter-agency coordination and planning for joint trenching, installation, upgrade, repair,  
14 maintenance, and construction of new utility facilities between the Public Works Department, the  
15 various utility service providers, and other agencies.  
16  
17 2. Provide timely notification of proposed projects in public rights-of-way to utility service providers  
18 and coordinate the placement of both above- and underground utility facilities, which are  
19 necessary to provide adequate service, including transformers, switch vaults, telephone  
20 pedestals, utility equipment cabinets, and other necessary utility equipment or structures.  
21  
22 3. Allow for utility services in ~~New~~ dedications for public rights-of-way ~~should allow for utility~~  
23 ~~services.~~  
24  
25 4. ~~Utility providers should be consulted~~ Encourage consultation between permit applicants and  
26 utility providers during the permitting process for installation of utility systems. [Moved from Goal  
27 4]

28  
29 ~~8.2.C~~ Location and Siting

30  
31 ~~Goal 3. XX XXX~~

32 ~~Goal: To Allow for the presence, continuing operation, maintenance, and expansion of the full range of~~  
33 ~~utility services available as reflected in the facilities inventory.; to Accommodate future changes in~~  
34 ~~conditions and technologies which may impact the character and operation of utility facilities. ; to~~  
35 ~~recognize that the geographic character of San Juan County necessitates providing access and the ability~~  
36 ~~to cross shorelines and waterways to utilities; and to recognize that utility facilities must occupy and~~  
37 ~~traverse a broad range of areas and land use designations.~~

38  
39 Policies (8.2.C.1):

- 40  
41 ~~1. Recognize that the geographic character of San Juan County necessitates providing access and the~~  
42 ~~ability to cross shorelines and waterways to utilities; and to and that recognize that utility facilities~~  
43 ~~must occupy and traverse a broad range of areas and land use designations. [Moved to~~  
44 ~~Environment/Rural Character goal]~~  
45  
46 ~~2. Locate and site utility facilities to minimize negative impacts to the rural character and natural~~  
47 ~~environment of the county. New transmission facilities, substations and submarine transmission~~

1 cable terminal facilities should be located and sited to minimize adverse impacts to the county's  
2 shorelines and rural character. [Moved to Environment/Rural Character goal]

3  
4 ~~3. New utility facilities should conform to the policies of the Land Use Element.~~

5  
6 ~~8.2.D Permitting~~

7  
8 ~~**Goal 3.** Goal: To foster predictability and timeliness in processing permit applications for utilities new  
9 utility facilities or utility service work; and to allow for necessary development, maintenance, repair,  
10 improvement, and expansion of utility facilities in a timely and efficient manner.~~

11 ~~Policies (8.2.D.1-3):~~

12  
13  
14 ~~1. Priority should be given to maintenance and repair work required to restore utility service under  
15 emergency circumstances.~~

16 ~~Provide provisions for emergency response for delayed permitting of activities necessary to  
17 prevent an imminent threat to public health, safety, or the environment; or to public or private  
18 property.~~

19  
20 ~~2. Identify utility installation, relocation and maintenance activities which are expected to have  
21 insignificant environmental impacts and will establish exemptions from permit requirements for  
22 those types of activities.~~

23  
24 ~~Continue to allow utility exemptions from critical area requirements for the installation and  
25 construction of utility lines and equipment, provided the conditions of exemption are met and  
26 documented.~~

27  
28 ~~8.2.E New Development~~

29  
30 ~~**Goal 4.** Goal: To minimize adverse impacts of providing utility services to new development on the rural  
31 character of San Juan County ; to allow for the provision of the full range of utility services to county  
32 residents; and to provide for new utility facilities which are compatible with or can be mitigated to  
33 minimize adverse impacts to adjacent land uses. Protect rural character while also providing for the  
34 location and extension of necessary utility facilities.~~

35  
36 ~~Policies (8.2.E.1-3):~~

37  
38 ~~1. Require N~~ew utility installations~~ distribution lines to serve for new development ~~should to~~ be  
39 installed underground, ~~except that s~~Services for single-family residential construction on an  
40 existing parcel may connect with existing overhead utility facilities.~~

41  
42 ~~2. Require N~~ew development should to~~ be designed so that utility easements are accessible and  
43 have sufficient capacity for installation of the full range of required utility services.~~

44  
45 ~~3. Utility providers should be consulted during the permitting process for installation of utility  
46 systems. [Moved to Goal 2]~~

1 Require landscaping to buffer adjacent uses for new utility installations excluding aboveground  
2 utility facility development and distribution or transmission corridors when located outside a  
3 public right-of-way.

- 4
- 5 4. ~~New utility installations should provide vegetative screening or buffers for existing adjacent~~  
6 ~~development. Locate and site utility facilities to minimize negative impacts to the rural character~~  
7 ~~and natural environment of the county. [Moved from old goal 3]~~  
8
- 9 5. ~~New development approved adjacent to existing utility facilities should provide vegetative~~  
10 ~~screening or buffers. New utility generation facilities, transmission facilities, substations and~~  
11 ~~submarine transmission cable terminal facilities should be located and sited to minimize adverse~~  
12 ~~impacts to the eCounty's shorelines and rural character. [Moved from old goal 3]~~

13

14 **8.2.F Environmental Protection**

15

16 **Goal 5.** ~~Goal: To Protect and preserve natural habitats and environments while also providing for the~~  
17 ~~location and extension of necessary utility facilities.~~

18

19 Policies (8.2.F.1-4):

- 20
- 21 1. ~~View Environmental protection and a quality environment are viewed as one product of, and not~~  
22 ~~a constraint on, good utility service, and are important components of operation in the public~~  
23 ~~interest. Regulations for environmental protection should recognize both the significance and~~  
24 ~~permanence of potential environmental damage and the cost to mitigate or avoid potential~~  
25 ~~damage for proposed utility projects.~~
- 26
- 27 2. ~~Locate Nnew utility facilities should be located away from, or constructed them in a manner~~  
28 ~~compatible with, critical areas, Rresource Llands, and Sshorelines. Recognize that physical and~~  
29 ~~service constraints may not allow relocation away from or full compatibility with such areas and~~  
30 ~~resources.~~
- 31
- 32 2. 3-Condition the approval of new utility facilities so as to avoid or mitigate any significant adverse  
33 impacts, and to develop appropriate compensating measures where mitigation is not feasible.
- 34
- 35 3.4Ensure that utility service providers are responsible for costs such as those associated with damage  
36 caused to the environment and public rights-of-way so that utilities providers will seek to  
37 minimize those costs in their planning, decision-making, and project execution.
- 38
- 39 4. 5-Recognize that the geographic character of San Juan the County necessitates requires providing  
40 access to and the ability to cross shorelines and waterways to connect utilities; and to and that  
41 ~~recognize that utility facilities must occupy and traverse a broad range of areas and land use~~  
42 ~~designations. [Moved from old goal 3]~~
- 43

44 **8.5.B Utility-Specific Goals and Policies**

45

46 **ELECTRICITY**

47 **8.3.A5.B Electricity**

1  
2 **Goal 6.** Minimize the environmental impacts of electricity production and use while promoting energy  
3 independence.

4 ~~Goal: Encourage the exploration of innovative and alternative technologies regarding energy~~  
5 ~~conservation.~~  
6

7 Policies (8-2.G-1):  
8

9 1. Encourage utility service providers to explore innovative and alternative methods of producing  
10 energy.

11  
12 2. ~~Support the transition toward energy independence from the mainland by.~~ [Moved to goal 7,  
13 ~~policy 7]~~

14  
15 ~~Working with the San Juan County Conservation District and OPALCO to promote community~~  
16 ~~solar projects and provide technical assistance and incentives to increase individual home solar~~  
17 ~~installations.~~

18  
19 3. Encourage utility providers, Washington State Department of Transportation (WSDOT), and the  
20 public to reduce greenhouse gas emissions.

21  
22 4. Adopt regulations that allow facilities that support the distribution of electricity for cleaner  
23 transportation including electric vehicles and electric ferries.

24  
25 5. Encourage the provision of electric vehicle chargers at key destinations throughout the County.

26  
27 6. Increase energy efficiency of buildings and systems on the islands by:  
28

- 29 ▪ Providing educational materials and supporting education on energy efficiency in buildings,  
30 beyond State energy efficiency requirements; and
- 31 ▪ ~~Updating and building new County buildings beyond State energy efficiency requirements and~~  
32 ~~generating some electricity with solar arrays when feasible alternatives are available.~~  
33 Installing solar panels on new and updated County buildings when feasible.

34  
35 7. Ensure that solar installations are sited and designed in a manner that minimizes impacts on  
36 agricultural land, allows for flexibility in future agricultural activity and maximizes potential for  
37 multiple benefits from “agrivoltaics”.  
38

39 **Goal 7.** ~~Goal: To Assist Collaborate with the Orcas Power and Light Company Co-Operative (OPALCO) in~~  
40 ~~achieving its goals for local energy resiliency. as stated in the Cooperative's Bylaws and Articles of~~  
41 ~~Incorporation: "to make electric energy available to its members at the lowest cost consistent with sound~~  
42 ~~economy, good management, and the public interest."~~  
43

44 Policies (8-3.A.1-6):  
45

46 1. Assist OPALCO when necessary to respond to new, unforeseen conditions and technologies that  
47 may affect utility operations and facilities.  
48

2. Coordinate planning to allow for the appropriate location and siting of all necessary existing and future facilities including overhead, underground, and submarine transmission and distribution systems, substations, cable terminals, standby and generation, and any other necessary equipment or structures. ~~Existing facilities are shown in Figure 1, below.~~
3. ~~Consider~~ Identify electric power facilities ~~to be~~ as essential public facilities.
4. Locate and site ~~N~~new upland power transmission facilities, substations and submarine transmission cable terminal facilities ~~should be located and sited~~ to minimize adverse impacts to the rural character, shorelines and natural environment of the County.
5. ~~Allow the testing of~~ pilot programs to evaluate new alternative renewable energy sources ~~which are consistent with the goals and policies of this Plan and that which comply with all attendant regulations.~~
6. ~~Develop a process for locating sites deemed appropriate for the location of alternative power generation facilities.~~  
Provide opportunities within land use designations for the development and use of renewable energy resources which are compatible with natural environment and rural character.
7. Support the transition toward energy independence from the mainland by up to 50 percent by the year 2040. ~~[Moved from Goal 6, policy 2]~~

## **TELECOMMUNICATIONS**

### ~~8.3.B~~ Telecommunications

**Goal 8.** ~~Goal:~~ ~~To~~ Promote the widespread availability of communication systems to facilitate communication among members of the public, public institutions, government agencies, and businesses, and to promote the public service and safety advantages and economic opportunities afforded to the community due to the availability of state-of-the-art telecommunications technology.

#### Policies (8.3.B.1):

1. ~~Identify~~ Telecommunications facilities ~~which are developed and operated expressly to carry out emergency services should be considered~~ as essential public facilities.
2. ~~In keeping with the County's goal to promote the public service, safety advantages and economic opportunities of widespread availability of state-of-the-art telecommunications technology, potentially suitable personal wireless facility locations identified on the Official County Map, per SJCC 16.80.040, as (1) preferred, (2) potentially suitable and (3) conditionally suitable locations, should be reviewed and updated every five years.~~

Coordinate with telecommunications service providers, Emergency Services, Public Works, and the County's Fire Districts to upgrade the County's emergency radio communications.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13

**PROPANE**

**Goal 9: Recognize propane as a heating source used in the County.**

Policies

1. Identify appropriate land use designations for the siting of bulk fuel storage.
2. Support the use of historic barge landings that have served as landing sites for transporting bulk fuels.
3. Work with the Ports, the Town of Friday Harbor, WSDOT and propane distributors to develop safe transportation and circulation routes for the transport of propane.

DRAFT

**Sophia Cassam**

---

**From:** Jay Kimball <jay@mountaincedar.com>  
**Sent:** Tuesday, March 1, 2022 1:33 PM  
**To:** Comp Plan Update  
**Cc:** Sophia Cassam  
**Subject:** OPALCO comments on Comp Plan elements  
**Attachments:** Section%20B\_Ele\_8\_Uilities\_Draft\_2021-01\_06-OPALCOedits.docx; 2020-04-03  
\_Appendix\_8\_Uilities\_Inventory-OPALCOedits.docx

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

On behalf of OPALCO, thank you for the opportunity to review the latest comp plan element updates.

OPALCO has suggested edits for the *Utilities* and *Utilities Inventory* documents. Edits were done with Word “change tracking” on to make it easy to identify the edits.

Feel free to contact me if clarification is needed.

All the best,

Jay Kimball  
360-376-5360

**COMPREHENSIVE PLAN  
SECTION B, ELEMENT 8**

**DRAFT**

**UTILITIES ELEMENT**

**~~November 2005~~**

**January 6, 2021**

**DRAFT**

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**ELEMENT 8**

**DRAFT**  
**UTILITIES ELEMENT**

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1 **8.1 INTRODUCTION**

2  
3 **8.1.A Purpose**

4  
5 The purpose of the Utilities Element is to set goals and policies which provide guidelines for the  
6 provision of utility services in San Juan County, and to facilitate coordinated, cost-effective  
7 planning and construction by the County and by individual utility service providers in a manner  
8 consistent with the goals and policies set forth in this *Plan*. This element consists of General Goals  
9 and Policies, Utility Specific Goals and Policies, and a Utilities Inventory in Appendix 8.

10 The Utilities Element includes the current and projected conditions of utilities in San Juan County. Utility  
11 services included in this Element are electricity, propane, telecommunications, internet and cable. San  
12 Juan County does not provide utility services; therefore, this Element relies on information shared by  
13 utility providers.

14  
15 This Element establishes goals and policies to guide the provision of utility services. Goals and policies  
16 aim to facilitate coordinated, cost-effective provision of services, planning, and construction by utility  
17 service providers in a manner consistent with the goals and policies of other elements of the  
18 Comprehensive Plan (Plan). This document also identifies opportunities and challenges for utility services  
19 through the 2036 planning period. These opportunities and challenges stem from projected population  
20 increases, new technologies, and climate change.

21  
22 The Utilities Element reflects certain key assumptions:

- 23  
24 1. Utility providers are the best identifiers of utility problems and the solutions needed to overcome  
25 them;\_;  
26  
27 2. Level of service (LOS) standards, concurrency, and capacity requirements do not apply to utility  
28 services addressed in this element;\_;  
29  
30 3. Privately owned utilities are not public facilities although they provide a public service. Each utility  
31 bears the responsibility for providing services to San Juan County residents within the guidelines  
32 of their own policies and in a manner consistent with the regulatory bodies having jurisdiction  
33 over them;\_ and  
34  
35 4. County residents ultimately bear the majority of the costs associated with the provision of utility  
36 services through utility rates, taxes, land development costs, and impacts to environmental and  
37 aesthetic values.  
38

39 This Element supports the *Plan* Vision and fulfils the requirements of the Growth Management Act (GMA)  
40 for utilities planning. Regarding energy, the Vision states, “Our community strives for energy  
41 independence...we use renewable energy.” Regarding communication systems, the Vision affirms that  
42 “Advanced communication infrastructure is encouraged...we encourage new ideas and new technology...  
43 [and] communication systems support our economy.”

44  
45 The Utilities Element is oriented toward meeting the needs of the people of the County in the midst of  
46 growth, climate change, and ever-advancing technologies. The GMA calls for comprehensive plans to  
47 include “the general location, proposed location, and capacity of all existing and proposed utilities” in

1 RCW 36.70A.070(4). By fulfilling the GMA requirement, the County positions itself to make effective use  
2 of existing utilities infrastructure, and to be responsive to inevitable change. Together, this Element and  
3 Appendix 8, Utilities Inventory meet this requirement. Appendix 8 contains the in-depth inventory of  
4 utilities.

## 5 8.2 RELATIONSHIP TO OTHER PLAN ELEMENTS

6  
7 The siting and provision of utility services interacts with other topics in the *Plan*. Utilities information can  
8 be found in both the Utilities and Capital Facilities Elements and Inventories. Water and sewer utilities  
9 are discussed in the Capital Facilities Element and Inventory, and are subject to concurrency requirements  
10 and Level of Service (LOS) standards. Services discussed in the Utilities Element and Inventory are not  
11 subject to concurrency requirements or LOS standards. The siting of utilities facilities, such as propane  
12 storage, electrical substations, and telecommunication towers, is a land use issue. Telecommunication  
13 services are closely tied to issues discussed in the Economic Development Element. The Utilities Element  
14 must be consistent with other *Plan* elements. No element can be enacted independently without  
15 consideration of other elements.

## 16 17 8.3 CURRENT CONDITIONS AND FUTURE OUTLOOK

18  
19 The following subsections summarize existing utilities conditions and provide a look at what the future  
20 may hold for the provision of those services. The outlook is based on the assumption that the County  
21 will grow according to the population projections in *Plan* Appendix 1. Both existing and future utility  
22 services are and will be operating in the context of climate change and the development of new energy  
23 and communication technologies.

### 24 25 8.3.1 Electricity

#### 26 27 Current Conditions

28  
29 Orcas Power and Light Co-operative (OPALCO) provides electricity in the County. The majority of  
30 electricity is sourced from hydropower on the mainland. Bonneville Power Administration and Puget  
31 Power generates and distributes it. Local renewable energy sources, such as solar power, currently  
32 generate about ~~one-three~~ percent of electricity. In ~~2019~~2021, OPALCO served ~~about 1415,913-000~~  
33 accounts on 21 islands. OPALCO estimates an annual increase of 0.5 percent for the number of residential  
34 accounts and 2.0 percent for commercial accounts.

#### 35 36 Energy Outlook

37  
38 Globally, we face a climate crisis induced by human-generated greenhouse gas emissions. In the Pacific  
39 Northwest, we have observed wildfires, drought, lack of snowpack, and increased ocean acidification in  
40 recent years<sup>1</sup>. Governor Inslee's Executive Order 14-04 includes key areas for addressing climate change,  
41 including reducing carbon emissions and improving energy efficiency<sup>2</sup>. San Juan County can reduce  
42 carbon emissions by increasing reliance on electricity if it comes from clean, renewable sources, and is  
43 used as efficiently as possible. Transportation and home heating/cooling are two major sources of energy

1 <https://fortress.wa.gov/ecy/publications/documents/1902031.pdf>, pg. x.

2 [https://www.governor.wa.gov/sites/default/files/exe\\_order/eo\\_14-04.pdf](https://www.governor.wa.gov/sites/default/files/exe_order/eo_14-04.pdf)

1 expenditure in the County (and anywhere else). Thirty five percent of county residential energy use is for  
2 heating, and over half of energy use is for transportation, which accounts for ~~41-45~~ percent of Washington  
3 State fossil fuel emissions<sup>3</sup>. Electric transportation costs about 75 percent less than fossil fueled  
4 transportation, helping keep dollars in the local economy<sup>4</sup>.

5  
6 The ~~Washington State 2021 Energy Strategy estimates the~~ electrification of transportation and heating  
7 ~~are expected to will nearly increase load by 37 percent by 2030 double load by 2050. Over this same period,~~  
8 ~~the electrification of transportation and heating is estimated to and~~ reduce greenhouse gas emissions by  
9 ~~72 percent by 2050~~<sup>5</sup>. The number of Electric Vehicles (EVs) in the county increased by 65 percent in 2019  
10 as they became less expensive and provided longer ranges<sup>6</sup>. The State has reinstated tax breaks for non-  
11 luxury electric vehicles in an effort to increase their prevalence and reduce transportation emissions.

12  
13 In 2019, Washington State Ferries (WSF) announced that it would begin transitioning its diesel ferry fleet  
14 to hybrid-electric. The anticipated 2030 ferry electrification will add load as well. Ferry electrification is  
15 an effort to drastically reduce greenhouse gas emissions. Currently, WSF generates fifty percent of  
16 greenhouse gas emission from working boats in Puget Sound (220,000 metric tons annually), despite only  
17 making up only six percent of such boats<sup>7</sup>.

18  
19 While power in Washington may be cleaner than in other states that rely heavily on fossil fuels to generate  
20 electricity, hydropower is not without environmental impact. ~~Chinook Salmon populations have been in~~  
21 ~~decline in both dammed and undammed river systems in the northwest. Dams that generate hydropower~~  
22 ~~are harmful to Chinook Salmon populations, which~~ Orca Whales in the Salish Sea rely on Chinook as a food  
23 source. That said, WA hydro power is cleaner than solar, wind, coal and natural gas and most other sources  
24 of energy, and helps reduce the impacts of climate change on ocean warming and acidification, which is  
25 driving ecosystem collapse, impacting thousands of species<sup>8</sup>. Hydro is an essential resource in the 2019  
26 WA Clean Energy Transformation Act (CETA) ~~and WA 2021 Energy Strategy~~, for firming intermittent  
27 renewables like solar and wind.

28  
29 There is a push toward energy independence from the mainland. Renewable energy resource costs have  
30 been falling, while mainland pricing has been slowly rising. The point at which they cross is called *grid*  
31 *parity*. In other words, grid parity is the point at which an emerging technology becomes economically  
32 viable. At that point, the emerging technology has increasing cost savings compared to the legacy  
33 technology. Once a resource is at grid parity or better, it can be added into OPALCO's energy portfolio to  
34 replace or moderate the cost of legacy energy sources. OPALCO expects that local renewable energy  
35 resources will become competitive with mainland power wholesale electric rates and reach grid parity  
36 around ~~2025~~2028. OPALCO is transitioning to a more locally generated energy mix, which could include  
37 member-generated energy (solar, wind, micro-hydro), Community Solar, utility-scale solar, tidal energy,  
38 and other new technologies. OPALCO expects that up to fifty percent of County energy ~~will~~ could be  
39 generated locally by 2040<sup>9</sup>.

3  
40  

---

<sup>3</sup> OPALCO analysis, US Department of Energy, WA Department of Ecology

<sup>4</sup> OPALCO analysis, US Department of Transportation, WA State Department of Transportation

<sup>5</sup> The Brattle Group

<sup>6</sup> WA State Department of Transportation

<sup>7</sup> <https://medium.com/wagovernor/clean-transportation-advances-with-hybrid-electric-ferries-85d2db1f902b>

<sup>8</sup> UN IPCC [https://archive.ipcc.ch/pdf/special-reports/srren/SRREN\\_FD\\_SPM\\_final.pdf](https://archive.ipcc.ch/pdf/special-reports/srren/SRREN_FD_SPM_final.pdf)

<sup>9</sup> OPALCO Integrated Resource Plan

1 The impacts from climate change, changing carbon emission regulations, and the restructuring of the  
2 electric transmission market throughout the Pacific Northwest will impact the electric grid serving the  
3 County. This may increase the potential for unplanned outages and rolling blackouts. The need for locally  
4 generated electricity from wind, solar, tidal, and other sources are vitally important to prevent economic  
5 disruption and preserve the County’s environment. **The County Vision states, “Our community strives for**  
6 **energy independence...we use renewable energy.” To achieve this vision will require significant land and**  
7 **water areas to host local renewable energy and tidal power sites. Development of- Joint Use Wireless**  
8 **Facilities fostered the rapid development of reliable ubiquitous cellular service in the county, improving**  
9 **healthcare, emergency services, public safety communications and economic activity. County land use**  
10 **designations should be similarly reviewed and updated for siting renewables. To increase energy**  
11 **independence from the mainland will require predictable permitting processes, to ensure timely**  
12 **achievement of grant funding and site development. This is particularly so for agri-solar applications on**  
13 **Rural Farm Forest and Ag land. Just as improved wireless land use designations fostered rapid**  
14 **improvement of wireless services in the county, updating land use designations for local renewable energy**  
15 **sites can help accelerate achieving the vision of “energy independence.”**

16  
17 Siting electric facilities serving locally generated electricity and its supporting infrastructure can enable  
18 the deployment of an electric ferry system and the electrification of the state’s transportation system.

19  
20 More information about the future of electricity in San Juan County can be found in OPALCO’s planning  
21 documents. OPALCO’s long-range plan contains an analysis of capacity development needed to meet  
22 future demands. Additionally, their four-year Construction Work Plan contains load forecasts and  
23 information on construction projects.

### 24 25 **8.3.2 Propane**

26  
27 There are no natural gas lines in San Juan County. The population relies heavily on propane. Propane  
28 tanks are not allowed on Washington State Ferries. Propane utility providers barge propane from the  
29 mainland to their distribution centers on San Juan, Orcas, and Lopez islands. The two propane providers  
30 in San Juan County are Inter-Island Propane and San Juan Propane. Inter-Island Propane recently  
31 established a facility on Orcas Island, which is subject to County inspection prior to starting operations.

32  
33 The demand for propane will likely increase as the County’s population increases. However, alternative  
34 renewable energy sources, such as home solar energy installations, and changes in State building code  
35 **and greenhouse gas emission reduction** requirements to meet WA State Greenhouse Gas targets for  
36 energy efficiency may reduce the per capita demand for propane in the future.

### 37 38 **8.3.3 Communications**

39  
40 San Juan County encourages the development of advanced communication infrastructure. Reliable, up-  
41 to-date communication services support everything from healthcare and public safety, to economic  
42 opportunity and modern lifestyles. Geographic isolation and relatively small resident populations have  
43 historically inhibited the extension of telecommunication services to some islands in the County. Today,  
44 Fiber and LTE are providing faster and more expansive communication services.

- 45  
46
  - 47 **Fiber:** The availability of fiber optic based services has grown extensively throughout the County in  
the past decade, meeting the growing needs of the electric grid, emergency communications, and

1 residential and business broadband and cell phone service. Approximately half of County addresses  
2 are located within a serviceable distance of existing fiber optic facilities. As demand for higher  
3 bandwidth and additional improvements are made to public infrastructure, the availability of fiber  
4 optic services are expected to continue to grow. Fiber is provided in San Juan County by Rock Island  
5 and Century Link.

- 7 ▪ **Voice over Internet Protocol (VoIP):** Anyone with a reliable internet connection can purchase VoIP  
8 service, which is becoming more common as internet access and speed increases. It is the  
9 predominant method for non-wireless voice communications around the nation, particularly for  
10 businesses. Rock Island is the primary provider of VoIP in the County.
- 12 ▪ **Fixed Wireless - Long-Term Evolution (LTE):** LTE is a standard for wireless broadband  
13 communication for mobile devices and data terminals. It increases the capacity and speed using a  
14 different radio interface together with core network improvements. LTE utilizes cellular technology  
15 to provide high-speed data and voice service has been deployed throughout the County. It provides  
16 access to phone and internet where fiber is currently unavailable, including eighteen non ferry-  
17 served islands. Fixed wireless is primarily provided by Rock Island in San Juan County.
- 19 ▪ **Fixed Wireless –Cellular Service:** All major cellular carriers have coverage to an extent in the  
20 County; however, the geography currently limits coverage in some areas. For some residents and  
21 visitors, lack of cell service poses a safety concern because it would be difficult to call for help in the  
22 case of an emergency. T-Mobile is the most extensive provider of cellular service in the County.
- 24 ▪ **Plain Old Telephone Service (POTS):** The main provider of POTS is CenturyLink. Use of POTS has  
25 decreased in the recent years as consumers discontinue landline service or switch to VoIP.
- 27 ▪ **Cable:** Cable internet and television services are available from CenturyLink, Zito Media, and POGO  
28 Zone in parts of Friday Harbor and Orcas Island. Use of cable services is declining as fiber and  
29 wireless broadband becomes more popular.

#### 31 8.4 KEY CHALLENGES

32  
33 The key challenges for utilities provided below are based on the utilities inventory in *Plan* Appendix 8 and  
34 the energy outlook. Considering the assessment of electricity, propane, and communications services,  
35 the utilities goals and policies in the following section put an emphasis on:

- 37 ▪ Preparing to serve the County’s 2036 forecasted population in *Plan* Appendix 1;
- 38 ▪ Meeting energy and telecommunications needs within and outside of population centers;
- 39 ▪ Reducing greenhouse gas emissions;
- 40 ▪ Reducing environmental impacts of all forms of energy we use;
- 41 ▪ Achieving the vision of energy independence;
- 42 ▪ Increasing energy efficiency; and
- 43 ▪ Working with the challenges presented by the islands’ unique geography.

#### 44 8.5 GOALS AND POLICIES

1 Utilities goals and policies guide San Juan County's actions affecting the provision of utility services. This  
2 section aims to result in meeting San Juan County's current and projected needs for energy and  
3 communications in a way that is cost-effective, efficient, appropriate for the character of the islands, and  
4 responsive to climate change. These goals and policies are informed by the 2005 Utilities Element, other  
5 Plan elements, information from utilities providers, community feedback, and by state climate directives.  
6

## 7 **8.5.A General Goals and Policies**

8  
9 The ~~G~~general ~~G~~goals and ~~P~~policies in this Element address the planning, location and siting of utilities;  
10 services to new development;  
11 and environmental protection. These issues are common among all utility  
12 services.

### 13 ~~8.2.A Long-range Planning~~

14 ~~**Goal 1.** Goal: To e~~ Coordinate planning efforts between San Juan the County and utility service  
15 providers and encourage the regular exchange of information plans, maps, and other pertinent  
16 information; ~~to aid utility service providers in anticipating and responding to growth by establishing land~~  
17 ~~use policies and regulations to direct and manage future growth;~~ and to maintain consistency between  
18 utility service plans and San Juan County plans.

19  
20 CLEAN: Coordinate planning efforts between the County and utility service providers and encourage the  
21 regular exchange of information to aid utility service providers in anticipating and responding to growth  
22 and to maintain consistency between utility service plans and County plans.  
23

### 24 Policies (8.2.A.1-6):

- 25  
26 1. Provide utility service providers with appropriate plans and mapped information to help establish  
27 a common eCounty-wide base map for utilities planning.
- 28  
29 2. Obtain Mmaps and facility inventories, with text designating the approximate location of existing  
30 facilities and the general location of proposed new facilities, ~~will be obtained~~ from utility service  
31 providers and integrated them into the eCounty's Geographic Information System (GIS).  
32
- 33 ~~3. Review the utility facilities inventory annually and provide updates on a biennial basis or as~~  
34 ~~necessary.~~
- 35  
36 ~~3.~~ 4. Provide utility service providers with ~~annual updates and status reports~~ for the six year capital  
37 improvement financing plan to aid in their ability to coordinate necessary system improvements.  
38
- 39 ~~4.~~ 5. Cooperate with utility providers in siting facilities for new and alternative technologies to save  
40 money and promote reliability of existing utilities by conserving existing energy resources, while  
41 promoting a feasible conversion to energy-saving technologies.  
42
- 43 ~~5.~~ 6. Cooperate with utility service providers in future comprehensive planning efforts, ~~and in to~~  
44 ~~evaluating actual patterns and rates of growth and comparing such patterns and rates them~~ to  
45 demand forecasts.  
46

### 47 ~~8.2.B Project Coordination~~

1  
2 **Goal 2. Goal:** ~~To a Allow~~ for the timely and cost-effective provision of utility services to eCounty  
3 residents by enabling inter-agency joint project planning; and ~~to~~ ensure the availability and use of utility  
4 corridors within public rights-of-way for the placement of utility service facilities.

5  
6 Policies (8.2.B.1-4):  
7

- 8 1. Facilitate inter-agency coordination and planning for joint trenching, installation, upgrade, repair,  
9 maintenance, and construction of new utility facilities between the Public Works Department, the  
10 various utility service providers, and other agencies.
- 11 2. Provide timely notification of proposed projects in public rights-of-way to utility service providers  
12 and coordinate the placement of both above- and underground utility facilities, which are  
13 necessary to provide adequate service, including transformers, switch vaults, telephone  
14 pedestals, utility equipment cabinets, and other necessary utility equipment or structures.
- 15 3. Allow for utility services in ~~New~~ dedications for public rights-of-way ~~should allow for utility~~  
16 ~~services.~~
- 17 4. ~~Utility providers should be consulted~~ Encourage consultation between permit applicants and  
18 utility providers during the permitting process for installation of utility systems. [Moved from Goal  
19 4]

20  
21  
22  
23  
24 ~~8.2.C Location and Siting~~  
25

26 **Goal 3. ~~XX XXX~~**

27 ~~Goal: To Allow for the presence, continuing operation, maintenance, and expansion of the full range of~~  
28 ~~utility services available as reflected in the facilities inventory.; to Accommodate future changes in~~  
29 ~~conditions and technologies which may impact the character and operation of utility facilities. ; to~~  
30 ~~recognize that the geographic character of San Juan County necessitates providing access and the ability~~  
31 ~~to cross shorelines and waterways to utilities; and to recognize that utility facilities must occupy and~~  
32 ~~traverse a broad range of areas and land use designations.~~

33  
34 Policies (8.2.C.1):  
35

- 36 1. ~~Recognize that the geographic character of San Juan County necessitates providing access and the~~  
37 ~~ability to cross shorelines and waterways to utilities; and to and that recognize that utility facilities~~  
38 ~~must occupy and traverse a broad range of areas and land use designations. [Moved to~~  
39 ~~Environment/Rural Character goal]~~
- 40 2. ~~Locate and site utility facilities to minimize negative impacts to the rural character and natural~~  
41 ~~environment of the county. New transmission facilities, substations and submarine transmission~~  
42 ~~cable terminal facilities should be located and sited to minimize adverse impacts to the county's~~  
43 ~~shorelines and rural character. [Moved to Environment/Rural Character goal]~~
- 44 3. ~~New utility facilities should conform to the policies of the Land Use Element.~~  
45  
46  
47

1 ~~8.2.D—Permitting~~

2  
3 ~~**Goal 3. Goal: To foster predictability and timeliness in processing permit applications for utilities new**~~  
4 ~~**utility facilities or utility service work; and to allow for necessary development, maintenance, repair,**~~  
5 ~~**improvement, and expansion of utility facilities in a timely and efficient manner.**~~

6  
7 ~~Policies (8.2.D.1-3):~~

- 8  
9 1. ~~Priority should be given to maintenance and repair work required to restore utility service under~~  
10 ~~emergency circumstances.~~  
11 ~~Provide provisions for emergency response for delayed permitting of activities necessary to~~  
12 ~~prevent an imminent threat to public health, safety, or the environment; or to public or private~~  
13 ~~property.~~  
14  
15 2. ~~Identify utility installation, relocation and maintenance activities which are expected to have~~  
16 ~~insignificant environmental impacts and will establish exemptions from permit requirements for~~  
17 ~~those types of activities.~~

18  
19 ~~Continue to allow utility exemptions from critical area requirements for the installation and~~  
20 ~~construction of utility lines and equipment, provided the conditions of exemption are met and~~  
21 ~~documented.~~

22  
23 ~~8.2.E—New Development~~

24  
25 ~~**Goal 4. Goal: To minimize adverse impacts of providing utility services to new development on the rural**~~  
26 ~~**character of San Juan County ; to allow for the provision of the full range of utility services to county**~~  
27 ~~**residents; and to provide for new utility facilities which are compatible with or can be mitigated to**~~  
28 ~~**minimize adverse impacts to adjacent land uses. Protect rural character while also providing for the**~~  
29 ~~**location and extension of necessary utility facilities.**~~

30  
31 ~~Policies (8.2.E.1-3):~~

- 32  
33 1. ~~Require new utility installations distribution lines to serve for new development should to be~~  
34 ~~installed underground, except that services for single-family residential construction on an~~  
35 ~~existing parcel may connect with existing overhead utility facilities.~~  
36  
37 2. ~~Require new development should to be designed so that utility easements are accessible and~~  
38 ~~have sufficient capacity for installation of the full range of required utility services.~~  
39  
40 3. ~~Utility providers should be consulted during the permitting process for installation of utility~~  
41 ~~systems. [Moved to Goal 2]~~

42  
43 ~~Require landscaping to buffer adjacent uses for new utility installations excluding aboveground~~  
44 ~~utility facility development and distribution or transmission corridors when located outside a~~  
45 ~~public right-of-way.~~

- 1 4. ~~New utility installations should provide vegetative screening or buffers for existing adjacent~~  
2 ~~development. Locate and site utility facilities to minimize negative impacts to the rural character~~  
3 ~~and natural environment of the county. [Moved from old goal 3]~~  
4
- 5 5. ~~New development approved adjacent to existing utility facilities should provide vegetative~~  
6 ~~screening or buffers. New utility generation facilities, transmission facilities, substations and~~  
7 ~~submarine transmission cable terminal facilities should be located and sited to minimize adverse~~  
8 ~~impacts to the County's shorelines and rural character. [Moved from old goal 3]~~  
9

## 10 ~~8.2.F Environmental Protection~~

11 ~~**Goal 5. Goal:** To Protect and preserve natural habitats and environments while also providing for the~~  
12 ~~location and extension of necessary utility facilities.~~

### 13 Policies (8.2.F.1-4):

- 14
- 15 1. ~~View Environmental protection and a quality environment are viewed as one product of, and not~~  
16 ~~a constraint on, good utility service, and are important components of operation in the public~~  
17 ~~interest. Regulations for environmental protection should recognize both the significance and~~  
18 ~~permanence of potential environmental damage and the cost to mitigate or avoid potential~~  
19 ~~damage for proposed utility projects.~~
- 20
- 21 2. ~~Locate Nnew utility facilities should be located away from, or constructed them in a manner~~  
22 ~~compatible with, critical areas, Rresource Lands, and Sshorelines. Recognize that physical and~~  
23 ~~service constraints may not allow relocation away from or full compatibility with such areas and~~  
24 ~~resources.~~
- 25
- 26 3. ~~3-Condition the approval of new utility facilities so as to avoid or mitigate any significant adverse~~  
27 ~~impacts, and to develop appropriate compensating measures where mitigation is not feasible.~~
- 28
- 29 3.4 ~~Ensure that utility service providers are responsible for costs such as those associated with damage~~  
30 ~~caused to the environment and public rights-of-way so that utilities providers will seek to~~  
31 ~~minimize those costs in their planning, decision-making, and project execution.~~
- 32
- 33 4. ~~5-Recognize that the geographic character of San Juan the County necessitates requires providing~~  
34 ~~access to and the ability to cross shorelines and waterways to connect utilities; and to and that~~  
35 ~~recognize that utility facilities must occupy and traverse a broad range of areas and land use~~  
36 ~~designations. [Moved from old goal 3]~~  
37
- 38
- 39

## 40 **8.5.B Utility-Specific Goals and Policies**

### 41 ELECTRICITY

#### 42 ~~8.3.A5.B Electricity~~

43

44

45 **Goal 6. Minimize the environmental impacts of electricity production and use while promoting energy**  
46 **independence.**

1 ~~Goal: Encourage the exploration of innovative and alternative technologies regarding energy~~  
2 ~~conservation.~~

3  
4 Policies (8.2.G-1):

- 5  
6 1. Encourage utility service providers to explore innovative and alternative methods of producing  
7 energy.  
8  
9 2. ~~Support the transition toward energy independence from the mainland by.~~ [Moved to goal 7,  
10 policy 7]  
11  
12 Working with the San Juan County Conservation District and OPALCO to promote community  
13 solar projects and provide technical assistance and incentives to increase individual home solar  
14 installations.  
15  
16 3. Encourage utility providers, Washington State Department of Transportation (WSDOT), and the  
17 public to reduce greenhouse gas emissions.  
18  
19 4. Adopt regulations that allow facilities that support the distribution of electricity for cleaner  
20 transportation including electric vehicles and electric ferries.  
21  
22 5. Encourage the provision of electric vehicle chargers at key destinations throughout the County.  
23  
24 6. Increase energy efficiency of buildings and systems on the islands by:  
25  
26 ■ Providing educational materials and supporting education on energy efficiency in buildings,  
27 beyond State energy efficiency requirements; and  
28 ■ ~~Updating and building new County buildings beyond State energy efficiency requirements and~~  
29 ~~generating some electricity with solar arrays when feasible alternatives are available.~~  
30 Installing solar panels on new and updated County buildings when feasible.

31  
32 **Goal 7. Goal:** ~~To Assist Collaborate with~~ the Orcas Power and Light Company Co-Operative (OPALCO) in  
33 achieving its goals for local energy resiliency. ~~as stated in the Cooperative's Bylaws and Articles of~~  
34 ~~Incorporation: "to make electric energy available to its members at the lowest cost consistent with sound~~  
35 ~~economy, good management, and the public interest."~~

36  
37 Policies (8.3.A.1-6):

- 38  
39 1. Assist OPALCO when necessary to respond to new, unforeseen conditions and technologies that  
40 may affect utility operations and facilities.  
41  
42 2. Coordinate planning to allow for the appropriate location and siting of all necessary existing and  
43 future facilities including overhead, underground, and submarine transmission and distribution  
44 systems, substations, cable terminals, standby and generation, and any other necessary  
45 equipment or structures. ~~Existing facilities are shown in Figure 1, below.~~  
46  
47 3. ~~Consider Identify~~ electric power facilities ~~to be~~ as essential public facilities.  
48

4. Locate and site ~~New upland power transmission facilities, substations and submarine transmission cable terminal facilities should be located and sited~~ to minimize adverse impacts to the rural character, shorelines and natural environment of the County.
5. Allow ~~the testing of pilot programs to evaluate new alternative renewable energy sources which are consistent with the goals and policies of this Plan and that which~~ comply with all attendant regulations.
6. ~~Develop a process for locating sites deemed appropriate for the location of alternative power generation facilities.~~  
Provide opportunities within land use designations for the development and use of renewable energy resources which are compatible with natural environment and rural character.
7. Support the transition toward energy independence from the mainland by up to 50 percent by the year 2040. [Moved from Goal 6, policy 2]

## **TELECOMMUNICATIONS**

### **8.3.B Telecommunications**

**Goal 8. Goal:** ~~To Promote the widespread availability of communication systems to facilitate communication among members of the public, public institutions, government agencies, and businesses, and to promote the public service and safety advantages and economic opportunities afforded to the community due to the availability of state-of-the-art telecommunications technology.~~

#### **Policies (8.3.B.1):**

1. ~~Identify telecommunications facilities which are developed and operated expressly to carry out emergency services should be considered as essential public facilities.~~
2. ~~In keeping with the County's goal to promote the public service, safety advantages and economic opportunities of widespread availability of state-of-the-art telecommunications technology, potentially suitable personal wireless facility locations identified on the Official County Map, per SICC 16.80.040, as (1) preferred, (2) potentially suitable and (3) conditionally suitable locations, should be reviewed and updated every five years.~~

Coordinate with telecommunications service providers, Emergency Services, Public Works, and the County's Fire Districts to upgrade the County's emergency radio communications.

## **PROPANE**

**Goal 9: Recognize propane as a heating source used in the County.**

#### **Policies**

- 1 1. Identify appropriate land use designations for the siting of bulk fuel storage.
- 2
- 3 2. Support the use of historic barge landings that have served as landing sites for transporting bulk
- 4 fuels.
- 5
- 6 3. Work with the Ports, the Town of Friday Harbor, WSDOT and propane distributors to develop safe
- 7 transportation and circulation routes for the transport of propane.

DRAFT

**COMPREHENSIVE PLAN**

**Appendix 8**

**DRAFT**  
**UTILITIES INVENTORY  
AND EXISTING CONDITIONS**

**August 4, 2017**

**April 3, 2020**

**DRAFT**

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**APPENDIX 8**

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UTILITIES INVENTORY  
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## 8.1 INTRODUCTION

The Utilities Inventory and Existing Conditions is an appendix to the San Juan County (SJC) 2020 *Comprehensive Plan (Plan)* Utilities Element. This document provides an inventory of utility services in San Juan County, including electricity, telecommunications, internet and cable, and communication sites and facilities. In San Juan County, private service providers supply utilities to customers. This inventory includes the providers, general locations and capacities of existing utilities where applicable. Planning for utilities aids SJC in ensuring adequate services are provided to different areas of the County, particularly as the County population increases.

## 8.2 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 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 Utility Services (RUS) Cooperative that 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 an electric distribution utility distributing power via submarine cables to members on twenty islands. OPALCO prioritizes energy delivery that is safe, reliable, affordable, clean, and sustainable.

### 8.2.1 Existing Conditions

According to OPALCO, existing electric utility facilities in San Juan County have adequate capacity to serve existing loads. OPALCO maintains a comprehensive Integrated Resource Plan to expand capacity as load growth occurs. Table 8.1.1 below, lists the location and capacities, in million volt-amps (MVA) of each substation in OPALCO's transmission network.

**Table 8.2.1 Capacity of OPALCO Electric Facilities (2019).**

Location	Base Capacity (MVA)	Max Capacity (MVA)
Shaw	5	5
Orcas	12	12
Eastsound	12	20
Olga	7.5	7.5
Lopez	12	16
Blakely	2.5	2.5
Decatur	2.5	2.5
Roche Harbor	12	22.4
Friday Harbor	12	22.4
Gravel Pit	12	20

Source: OPALCO 2019

1  
2

Map 1. OPALCO Electrical Facilities (2019).

### OPALCO Islands Served



3  
4

1 Table 8.2.2 below, lists the number of service accounts by island for 2019.

2  
3

**Table 8.2.2 2019 OPALCO Accounts.**

Island	Number of Services
Armitage	1
Bell	1
Big Double	3
Blakely	166
Brown	48
Canoe	6
Center	142
Charles	2
Crane	53
Decatur	279
Fawn	1
Henry	97
Little Double	1
Lopez	2,486
Obstruction	36
Orcas	4,736
Pearl	40
Reef Point	1
San Juan	6,528
Shaw	275
Spieden	11
Total	14,913

Source: OPALCO 2019

4  
5

### 8.2.2 Capacity Needs

6  
7

8 An analysis of capacity development necessary to meet future demand is contained in OPALCO's long-range  
9 plan. OPALCO also develops load forecasts and construction projects in their 4-year Construction Work Plan  
10 (CWP) in addition to its long-range planning program. OPALCO is currently implementing its ~~2017-2020~~2021-  
11 2024 CWP which is reviewed and updated annually as necessary. These capital-planning programs are  
12 referenced here for future comprehensive planning purposes.

13

14 Detailed analyses have been and will be conducted by OPALCO based on planned land use. Planned  
15 construction of electric utility facilities serving local load areas is based on existing and projected load rather  
16 than time (years). Utilities determine the need for expanded or new electric utility regional transmission  
17 network facilities on the basis of established planning standards that define required system performance  
18 under specified conditions including load and generation levels, equipment outages, weather, and equipment  
19 ratings. As the electric load within San Juan County grows due to an increase in customers and demand,  
20 OPALCO will need to add new electrical facilities to increase the capacity of its distribution system. OPALCO  
21 estimates an average annual increase of 0.5 percent for residential accounts and 2.0 percent for commercial  
22 accounts. Since 2007, OPALCO has increased its consumer accounts by approximately 10 percent or an  
23 increase of over 1,400 customers.

1 **8.2.3 Community Solar**

2  
3 OPALCO operates a 500 KW solar array located on 3.6 acres at the Decatur Substation. This is OPALCO’s first  
4 Community Solar Project—a program where members offset a portion of their energy use and electric bill via  
5 credits by buying shares of a solar array OPALCO operates. Decatur Community Solar began operating in July  
6 2018, and is expected to produce approximately 570,000 kWh/year. A second community solar project is  
7 being developed on San Juan island, for commissioning in 2023. More community solar projects may be a part  
8 of OPALCO’s effort to become more energy independent from mainland energy sources.

9  
10 San Juan Islands Conservation District and OPALCO promote solar energy projects in the county in partnership  
11 with the Bonneville Environmental Foundation and local solar installers. The Community Solar for Our Schools  
12 program provided solar array installations to generate power for public schools on Orcas, San Juan, Lopez and  
13 Shaw islands.

14  
15 **8.2.4 Electric Vehicles and Charging Stations**

16  
17 Electric Vehicles (EVs) in San Juan County have been growing at an average of 35% per year. There are 615  
18 EVs at the end of 2021. Washington state transportation accounts for over 45% of state greenhouse gas  
19 emissions (GHGs), the largest single source of GHGs. The Washinton State 2021 Energy Strategy identifies EVs  
20 as one of the most important ways to decarbonize state greenhouse gas emissions. San Juan County has two  
21 EVs and two EV charging stations. One EV is on San Juan Island where the County had a charging station in the  
22 parking garage beneath the Legislative Building. There is also an EV on Orcas where there is a charging station  
23 at the Orcas Ferry Landing. The County is considering purchasing another EV and installing another charging  
24 station, to be located on Lopez Island. County EV charging stations are not for public use. There are currently  
25 six EVs providing Island Rides to people that don’t have transportation. This constitutes the first electric public  
26 transportation in the islands. In the coming decades, it is expected that autonomous electric vehicles will  
27 become an important solution for providing public transportation. These autonomous electric vehicles will  
28 require access to charging stations able to support automated docking.

29  
30 Washington state is developing a new fleet of quiet, clean electric ferries, for service in San Juan County. These  
31 eFerries will require rapid charging each time they dock at a county ferry terminal. OPALCO is working with  
32 WA DOT to ensure adequate power will be available for recharging the eFerries during a typical 15 minute  
33 docking.

34  
35 According to the San Juan Islands Conservation District (SJICD), San Juan County has the highest number of  
36 public EV chargers per capita in Washington State. There are EV charging stations available to the public on  
37 San Juan, Orcas, and Lopez islands, shown in table 8.2.3 below. The SJICD provides some funding for  
38 businesses and organizations to install public EV chargers.

39  
40 **Table 8.2.3 Public Electric Vehicle Charging Stations**

Location Name	Address	Number of Stations
<b>SAN JUAN ISLAND</b>		
<u>Port of Friday Harbor</u>	<u>200 298 Front St N</u>	<u>1</u>
<u>Key Bank</u>	<u>95 2nd St</u>	<u>3</u>
<u>Earthbox Motel and Spa</u>	<u>410 Spring St.</u>	<u>2</u>

<u>Friday Harbor Grand Bed and Breakfast</u>	<u>345 Blair Ave</u>	<u>1</u>
<u>Avalon Business Park</u>	<u>322 Daniel Ln</u>	<u>1</u>
<u>Sweet Earth Farm Store</u>	<u>5658 West Side Rd</u>	<u>1</u>
<u>Snug Harbor Resort</u>	<u>1997 17 Mitchell Bay Rd</u>	<u>1</u>
<b>ORCAS ISLAND</b>		
<u>Orcas Island Ferry Terminal</u>	<u>156 Orcas Rd</u>	<u>1</u>
<u>Odd Fellows Hall</u>	<u>112 Haven Rd</u>	<u>1</u>
<u>Orcas Island Market</u>	<u>469 Market St</u>	<u>2</u>
<u>Rosario Resort</u>	<u>410 Ocean Mist Way</u>	<u>2</u>
<u>Doe Bay Resort</u>	<u>107 Doe Bay Rd</u>	<u>1</u>
<b>LOPEZ ISLAND</b>		
<u>Lopez Community Land Trust</u>	<u>25 Tuatara Rd</u>	<u>1</u>
<u>Lopez Village Market</u>	<u>162 Weeks Rd</u>	<u>3</u>
<u>Ark Veterinary Clinic</u>	<u>262 Weeks Rd</u>	<u>1</u>
<u>Lopez Island Library</u>	<u>2225 Fisherman Bay Rd</u>	<u>1</u>
<u>Southend General Store and Restaurant</u>	<u>3024 Mud Bay Rd</u>	<u>1</u>

### 8.3 PROPANE AND NATURAL GAS

Propane is an important energy source in San Juan County. Natural gas is not available in the County, contributing to the reliance on propane. Propane in San Juan County is provided by private suppliers, including Inter-Island Propane and San Juan Propane. Inter-Island Propane is located in Friday Harbor and on Lopez Island. They currently provide barge service to Orcas, Shaw, and to the outer islands by request. Inter-Island propane has been permitted to build and operate a new facility in Eastsound. San Juan Propane is located in Friday Harbor, Eastsound, and Island Center on Lopez Island. San Juan County's involvement with propane extends only to land use issues. Safe delivery of propane from ports is a priority.

### 8.4 TELECOMMUNICATIONS (DATA & VOICE)

#### 8.4.1 Data & Telephone - Fiber Optic

The availability of fiber optic based services has grown extensively throughout the county in the past decade. This is meeting the growing needs of the electric grid, emergency communications, residential and business broadband and cell phone service. In Mid-2015, deployment of Fiber to the Home and Premise (FTTH & FTTP) began throughout the county. As of October 2019, approximately 50 percent of the County (7,500 addresses)

1 is located within a serviceable distance (500 feet or less) of existing fiber optic facilities. Of those addresses,  
2 1,800 are utilizing fiber optic service. As demand for higher bandwidth and additional improvements are made  
3 to public infrastructure, the availability of fiber optic services will continue to grow. The FTTP system enables  
4 homes and businesses to scale their needs up to 1Gbps (1,000 Mbps) upon initial installation with the ability  
5 to go to 10Gbps (10,000 Mbps) as required. Fiber is considered a future-proof technology that allows for  
6 massive increases in available bandwidth for generations to come. The average monthly new connection rate  
7 is 30-40 locations. The fiber is spanning 500 plus miles connecting all major islands and to the mainland with  
8 multiple upstream connections in Bellingham and Seattle.

#### 9 10 **8.4.2 Telephone – Voice over Internet Protocol (VoIP)**

11  
12 With the increase use of data communication services, Voice over Internet Protocol (VoIP) has become the  
13 predominate method for non-wireless based voice communications around the nation, particularly for  
14 businesses. VoIP services are dependent on reliable, low-latency internet connectivity. Unlike Plain Old  
15 Telephone Service (POTS) lines, the Washington Utilities and Transportation Commission (WUTC) does not  
16 regulate VoIP.

17  
18 There are various resellers of VoIP services for residents and businesses in San Jun County. Anyone with a  
19 reliable internet connection can purchase voice services from a variety of national providers. Each of these  
20 providers deliver a wide variety of services and advanced features based upon the consumer requirements.

#### 21 22 **8.4.3 Wireless – Fixed Wireless Long Term Evolution (LTE)**

23  
24 In addition to deploying Fiber To The Home (FTTH) around the County, Fixed Wireless LTE has been deployed.  
25 LTE has been deployed to service areas where fiber is unavailable currently. LTE is a standard for wireless  
26 broadband communication for mobile devices and data terminals. It increases the capacity and speed using  
27 a different radio interface together with core network improvements. Fixed Wireless LTE utilizes cellular  
28 technology enabling high-speed data and voice connections in the range of 25Mbps to 150 Mbps. As of  
29 October 2019, 3,000 locations are served with fixed wireless broadband service. This service is recognized  
30 nationally as one of the top 10 fastest wireless services available to U.S. residents and the highest available  
31 offering in Washington State. Service is provided to 18 non ferry-served islands, some without utility power  
32 service. With increased capacity being added regularly, this service is available to over 4,500 locations in San  
33 Juan County.

#### 34 35 **8.4.4 Wireless – Cellular**

36  
37 Personal wireless communication facilities are not classified as public utilities or essential services, but are a  
38 commercial service. Nationally, the Federal Communications Commission (FCC) regulates the airwaves and  
39 the personal wireless communications industry and is responsible for issuing construction permits for  
40 transmission facilities and licenses to operate wireless systems. All major national cell phone providers have  
41 a presence in San Juan County from T-Mobile, Verizon, AT&T and Sprint to smaller service providers. Overall  
42 capacity of the network with multiple new frequency bands opening enables for higher throughput and data  
43 rates. It is expected providers will expand their capacity and coverage area over time to accommodate their  
44 respective customer base.

45  
46 Local governments regulate the development of the wireless communications network by specifying where  
47 facilities can locate, applying buffering and setback requirements, etc. Federal case law from regulating  
48 facilities covered by the Federal Aviation Administration (FAA) has preempted local governments. The FAA  
49 reviews the location and height of proposed support structures to prevent interference with operations of  
50 airports and flight paths. The FAA regulates proposed towers that exceed 200 feet and smaller structures

1 located within 20,000 feet of a major airport and 10,000 feet of a general aviation airport. The FAA does not  
2 have the authority to deny an FCC construction permit, but it can cite a proposed support structure as a hazard  
3 to navigation. (See the discussion on Airport facilities in Element II-D Transportation.) In 2014, San Juan  
4 County adopted a joint use wireless ordinance enabling the broader development of wireless infrastructure  
5 for essential public services.  
6

#### 7 **8.4.5 Telephone - Plain Old Telephone Service (POTS)**

8

9 CenturyLink, based in Monroe, Louisiana, is the primary provider of POTS (Plain Old Telephone Service), to  
10 approximately 10,000 residential and business customers in the county. The number of locations decreases  
11 as consumers discontinue landline service or port their number over to VoIP providers, such as Rock Island  
12 Communications, a subsidiary of OPALCO. In addition, CenturyLink also provides digital subscriber line (DSL)  
13 service; as well as private dedicated services (i.e. Ethernet) which helps meet the needs of telecommunication  
14 customers throughout the county.  
15

16 CenturyLink provides service to the county via a fiber optic cable network that connects all the major islands  
17 to the mainland. It provides these essential services to meet the needs of telecommuters and those who run  
18 businesses from their homes. Service is currently provided to Blakely, Brown, Center, Crane, Decatur, Henry,  
19 Lopez, Obstruction, Orcas, Pearl, San Juan and Shaw Islands.  
20

21 Geographic isolation and comparatively small resident populations have historically inhibited the extension  
22 of telephone service to some islands within the county, such as Stuart Island.  
23

### 24 **8.5 INTERNET & CABLE SERVICES**

25

26 Fast, reliable Internet connection is increasingly important to economic development, health and safety, and  
27 daily life in San Juan County. Broadband Internet connection allows residents opportunities to work remotely  
28 and connect with others globally. Medical facilities and emergency services rely heavily on broadband Internet  
29 in order to provide modern, up-to-date care. The Economic Development Element of this Comprehensive  
30 Plan states the goal of “support[ing] development of reliable high-speed (100 Mbps or higher, or the current  
31 standard for urban regions of the U.S., whichever is higher) broadband infrastructure that enables the creation  
32 of jobs and improved educational opportunities for islanders, and increased competitiveness for the county.”  
33 Internet utility infrastructure comes in several forms, including LTE fixed wireless, fiber, and cable.  
34

35 Rock Island Communications provides broadband Internet via LTE fixed wireless and fiber in San Juan County.  
36 Rock Island is a subsidiary of OPALCO, as of 2015. Fiber connectivity is growing rapidly, with LTE providing  
37 service in areas awaiting fiber deployment. Cable Television and Internet services have continued to see a  
38 significant decrease throughout the county with CenturyLink, Zito Media and PogoZone covering parts of  
39 Friday Harbor and Orcas Island. This decline has been driven by the consumer move to online streaming  
40 services such as Netflix, Hulu and Amazon as broadband services via fiber and wireless increase, in addition  
41 to increased competition from satellite providers.  
42

### 43 **8.6 COMMUNICATION SITES AND FACILITIES**

44

45 Antennae and towers atop Mt. Constitution on Orcas Island are used to provide broadcast communications  
46 and electronic controls. As telecommunications technology and demands continue to change, service  
47 providers must retain the ability to expand existing and build new antennae and towers for operational  
48 purposes.  
49

1 Mt. Constitution Sites, Inc. owns 160 acres of land within Moran State Park and leases communication towers  
2 to approximately 40 users. In all they have five towers with three primary sites ranging from 500', 400', to a  
3 235' tower, located in the northeast corner of this property.  
4  
5 East of the 160-acres of private property mentioned above, the U.S. Coast Guard leases a one-acre site from  
6 the Washington State Parks and Recreation Commission (WSPRC) and operates a 100-foot tower with  
7 microwave dishes to monitor small vessels. KVOS leases a one-acre site from the WSPRC at the 2,409 summit  
8 of Mt. Constitution and operates a transmitter facility and a 150-foot tower. Washington State Department  
9 of Transportation (WSDOT) leases a one-acre site from WSPRC southwest of the KVOS site and operates two  
10 70-foot towers. The U.S. Forest Service also leases one acre from WSPRC and operates two 70-foot towers.  
11 The University of Washington also operates a seismographic telemetry station at this site. This site may, at  
12 some point, no longer be sufficient for future forms of, or demand for, personal wireless services. The county  
13 adopted Ordinance 8-1997, which established a subarea plan and requirements for future personal wireless  
14 communication service facilities through Chapter 16.80 of the SJCC.

DRAFT

## Sophia Cassam

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**From:** Faith Van De Putte  
**Sent:** Wednesday, March 9, 2022 3:29 PM  
**To:** Comp Plan Update  
**Cc:** Jamie Stephens; Cindy Wolf; Christine Minney; Mike Thomas  
**Subject:** Comments regarding Transportation, Housing, Capital Facilities and Utilities Elements  
**Attachments:** Comp Plan Comments 2022 .pdf

Hello Sophia and members of Council,

Please find attached the ARC's comments on the current drafts of the Transportation, Housing, Capital Facilities and Utilities Elements of the Comprehensive Plan.

Thank you,  
Faith

Faith Van De Putte  
*Agriculture Resource Committee of San Juan County*  
Co-ordinator  
360-370-7666  
faithv@sanjuanco.com



**Agricultural  
Resources  
Committee  
of San Juan County**

**Memorandum**

**TO:** Sophia Cassam, Planner 2  
Jamie Stephens, County Council  
Cindy Wolf, County Council  
Christine Minney, County Council  
Mike Thomas, County Manager

**From:** San Juan County Agricultural Resource Committee (ARC)

**Date:** 2/16/2022

**Subject:** Agricultural Resource Committee (ARC) Comments

The Agricultural Resource Committee (ARC) has been engaged with the Comprehensive Review Process since 2016. Below are our comments and recommendations on the current drafts of the Transportation, Housing, Capital Facilities and Utilities Elements.

**Transportation Element Draft- September 14, 2020**

We heartily support and encourage the inclusion of the following policies and recommend an addition to Policy 18 reflecting the County Council Memo to Legislators on December 14, 2021:

Policy 18 on page 25

18. Support continued safe and effective transport of livestock on ferries per WAC 468-300-700(1)(p). We recommend the addition of the following language to Policy 18: *“Work with legislature and WSF to add language to WAC 468-300-700(1)(p) giving priority loading to perishable livestock products, or vehicles providing scheduled, time-sensitive livestock processing services and inspection.”*

Policy 8 on page 30

8. Support agriculture in the county by continuing to allow unrestricted movement of farm equipment and machinery, as well as unrestricted driving of livestock, on County roads in a reasonable and prudent manner.

**Capital Facilities and Services Element Draft- June 30, 2020**

We encourage the addition of a new policy to the Solid Waste and Recycling Section 7.3.A on page 16:

Encourage service providers to offer commercial composting, or other biomass value-added processing methods which can recycle nutrients for use in local agricultural production.

**Utilities Element Draft- January 6, 2021**

We encourage the addition of the policy below to 8.5. B Utility-Specific Goals and Policies- Electricity- Goal 6 on page 10:

Ensure that solar installations are sited and designed in a manner that minimizes impacts on agricultural land, allows for flexibility in future agricultural activity and maximizes potential for multiple benefits from "agrivoltaics".

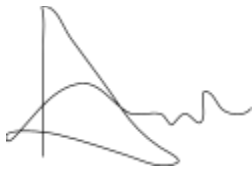
### **Housing Element Draft- September 16, 2021**

Thank you for your hard work on this draft. Many of the recommendations that we put forward in our January 28, 2020 memo have been incorporated into the current draft. Housing is critical for the agricultural workforce. We support the language in this draft concerning tiny homes and tiny home communities and affordable housing.

We recommend a new Policy under Goal 4 on page 18:

Explore and permit innovative approaches to sewer and grey water systems.

Thank you for considering our comments and recommendations.



Annie McIntyre, ARC Chair



Faith Van De Putte, ARC Coordinator