DRAFT ELEMENT 8. UTILITIES

Introduction

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

This Element establishes goals and policies to guide the provision of utility services. Goals and policies aim to facilitate the coordinated, cost-effective provision of services, planning, and construction by utility service providers in a manner consistent with the goals and policies of other elements of the Comprehensive Plan (Plan). This document also identifies opportunities and challenges for utility services through the 2045 planning period. These opportunities and challenges stem from projected population increases, new technologies, land use policy, and climate change.

The Utilities Element reflects certain key assumptions:

1. Utility providers are the best identifiers of utility problems and the solutions needed to overcome them;

2. Level of service (LOS) standards, concurrency, and capacity requirements do not apply to utility services addressed in this element;

3. Though privately owned utilities may not be considered public facilities, they provide a public service. In the case of water, electricity, and telecommunications, these services are essential to public health and well-being. Each utility bears the responsibility for providing services to San Juan County residents within the guidelines of their own policies and in a manner consistent with the regulatory bodies having jurisdiction over them. Each essential utility depends on other essential utilities to operate – Water and communications utilities need energy, and energy utilities need communications and water, for example;

4. County residents ultimately bear a large portion of the costs associated with the provision of utility services through utility rates, taxes, land development costs, and impacts to environmental and aesthetic values.

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

The Utilities Element is oriented toward meeting the needs of the people of the County in the midst of growth, climate change, and ever-advancing technologies. The GMA calls for comprehensive plans to include “the general location, proposed location, and capacity of all existing and proposed utilities” in RCW 36.70A.070(4). By fulfilling the GMA requirement, the County positions itself to use existing utilities infrastructure effectively, streamline development of needed new infrastructure to support the growing population's needs, and be responsive to inevitable change. Together, this Element and Appendix 8, Utilities Inventory, meet this requirement. Appendix 8 contains the in-depth inventory of utilities.

Relationship to Other Plan Elements

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

Current Conditions and Future Outlook

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

Electricity

Current Conditions

Orcas Power and Light Co-operative (OPALCO) provides electricity in San Juan County. The majority of electricity is sourced from hydropower on the mainland. That electricity is generated by Bonneville Power Administration with Puget Sound Energy providing the final transmission connection to OPALCO's two submarine cables that power OPACLO's grid. Local renewable energy sources, such as rooftop solar currently supply about four percent of annual energy use, mostly on sunny summer days. In winter months, when load more than doubles, grayer, shorter winter days mean rooftop solar only provides a very small fraction of the energy mix and doesn't work during outages.

At the start of 2025, OPALCO had about 15,900 co-op member accounts on 21 islands. About 88% are residential members, and 12% are commercial members, growing at about 1% per year.

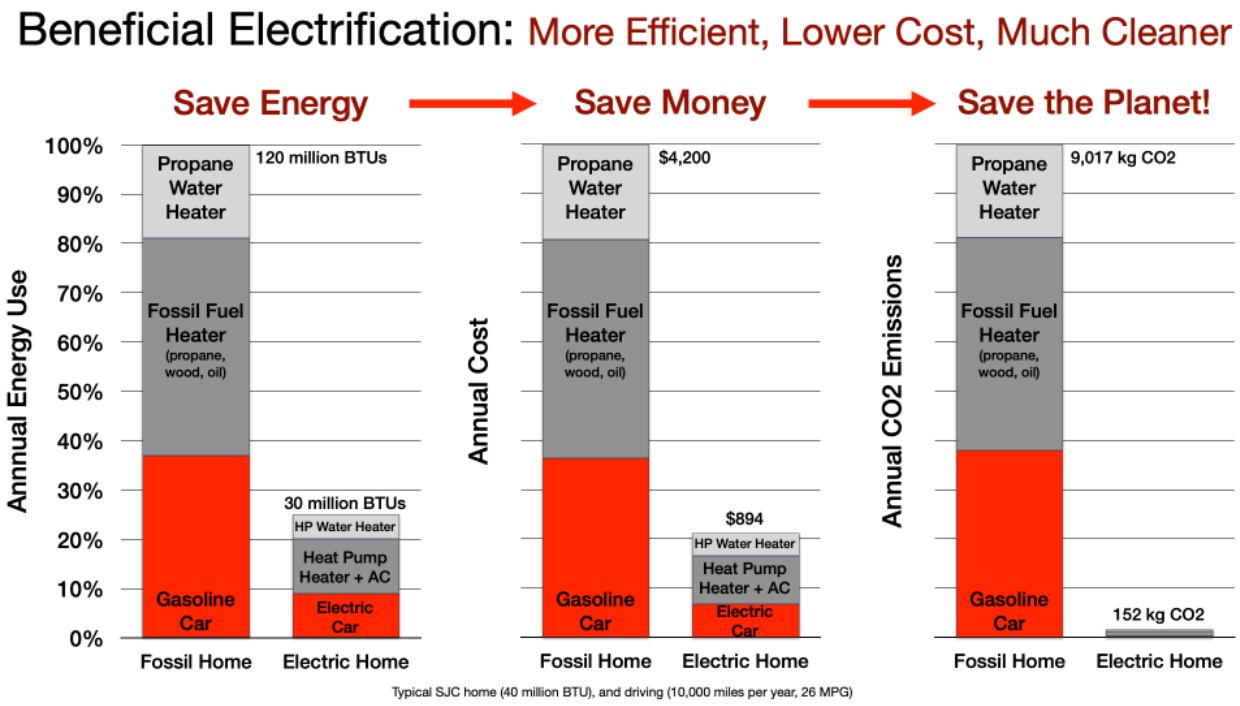
Energy Outlook

Globally, we face a climate crisis induced by human-generated greenhouse gas emissions. In recent years, we have observed wildfires, drought, lack of snowpack, and increased ocean acidification in the Pacific Northwest[1]. Governor Inslee's Executive Order 14-04 includes key areas for addressing climate change, including rapidly reducing carbon emissions and improving energy efficiency[2]. Washington state's 2021 Energy Strategy and Clean Energy Transformation Act (CETA) call for a 50% reduction of greenhouse gas emissions (GHGs) by 2030 and net-zero emissions by 2050.

In San Juan County, about 70% of GHG emissions come from just two things, transportation and heating. The key to reducing carbon emissions in San Juan County is converting fossil-fueled heating and transportation to electric forms and powering that new load with clean, renewable energy sources. Additionally, modern heat pumps and EVs are 3 to 6 times more efficient than their fossil-fueled counterparts.

[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

Thirty five percent of county residential energy use is for heating, and over half of energy use is for transportation. Modern electric heat pumps and transportation costs up to 75 percent less than fossil-fueled heating and transportation, helping keep dollars in the local economy[3]. The chart below shows how electric heat pumps and transportation in San Juan County are much more energy efficient, cost less, and reduce CO2 emissions compared to their fossil-fueled counterparts.



Washington State's 2021 Energy Strategy estimates the electrification of transportation and heating will nearly double electricity demand by 2050. Over this same period, the electrification of transportation and heating is estimated to reduce greenhouse gas emissions by 72 percent by 2050[4]. The number of Electric Vehicles (EVs) in the county increased by 17% in 2024 as they became less expensive and provided longer ranges[5]. At the start of 2025 there are 1,094 EVs and plugin hybrid EVs registered in the county. San Juan County now has the state's highest per capita share of electric vehicles. The State recently used Climate Commitment Act funds to provide innovative EV leasing rebates to low-income households.

In 2019, Washington State Ferries (WSF) announced that it would begin transitioning its diesel ferry fleet to hybrid-electric. The anticipated 2035 ferry electrification will further increase electricity demand. Ferry electrification is an effort to drastically reduce greenhouse gas emissions. Currently WSF generates fifty percent of greenhouse gas emission from working boats in Puget Sound (220,000 metric tons annually), despite making up only six percent of such boats[6].

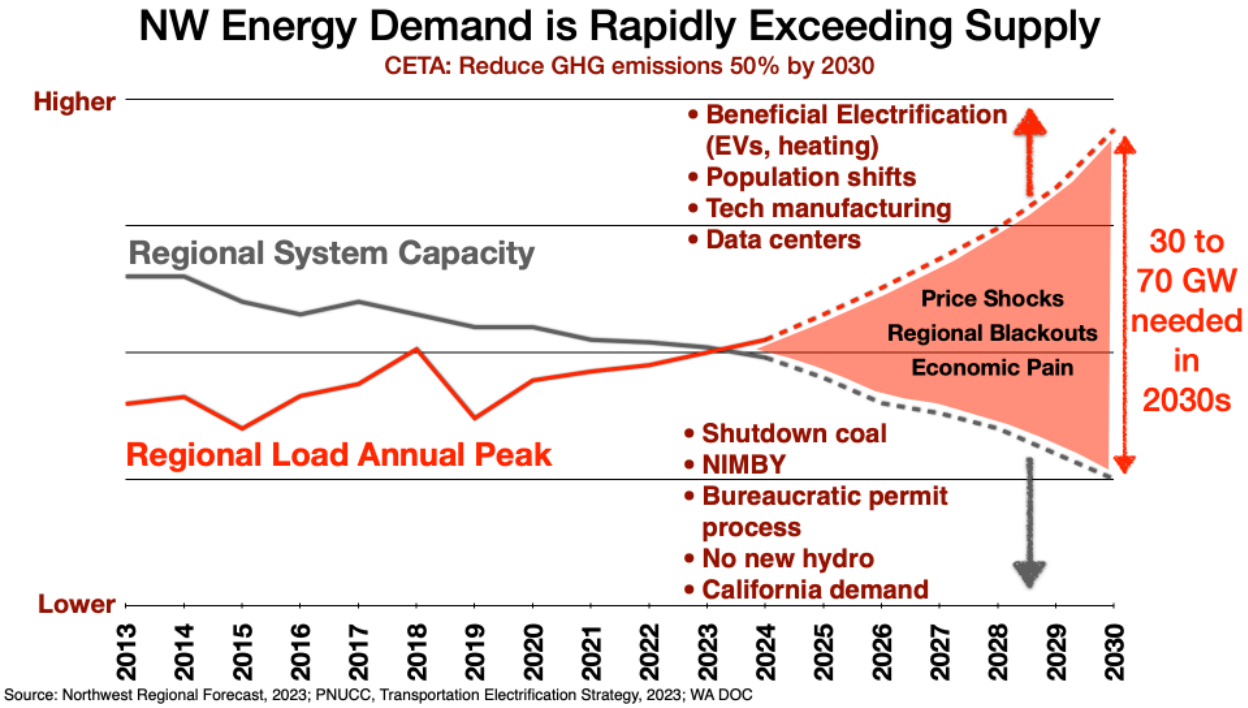
Hydropower plays a crucial role in the 2019 WA Clean Energy Transformation Act (CETA) and Washington's 2021 Energy Strategy by providing reliable energy to stabilize intermittent renewable sources like solar and wind. But hydropower is in decline, due to acclerating reduction of snowpack from climate change. Most snowpack in Washington is estimated to be gone in the next 50 years.

[3] OPALCO analysis, US Department of Transportation, WA State Department of Transportation
[4] The Brattle Group
[5] WA State Department of Transportation
[6] WA State Department of Transportation

In 2024, BPA and the Northwest Power & Conservation Council published an alarming analysis showing regional mainland power supply shortfalls of 30 to 70 GW in the coming decade, with over 400 GW needed across the western region. (Source: NWPCC 6 August 2024 Planning and Analysis Study, August 2024)

This supply/demand shortfall is driven by several factors (see chart below):

- Increasing Load – driven primarily by electrification of transportation and heating, population growth, tech manufacturing, and data centers.
- Decreasing Supply – driven primarily by shutdown of coal power plants, declining hydro from climate change reducing snowpack, slow bureaucratic permitting process, not in my backyard (NIMBY) opposition to local renewables projects, California demand.



This supply/demand shortfall is accelerating. Mainland rolling blackouts are imminent, especially during winter cold snaps and summer heat domes. The impact on islanders will be significant:

- Loss of Life – Regional outages most frequently occur during weather extremes, when extreme cold or heat stress especially vulnerable islanders.
- Energy Price Shocks – During the January 2024 cold snap, the market price of electricity increased over 800% as utilities begged their customers to reduce their energy use. A regional outage was barely avoided as imports surged from BC and California.
- County Economic Loss – Lawrence Berkeley Labs Interruption Cost Estimator calculates that each major outage event can result in several million dollars of economic loss for residential and commercial islanders. (source: https://icecalculator.com/home)

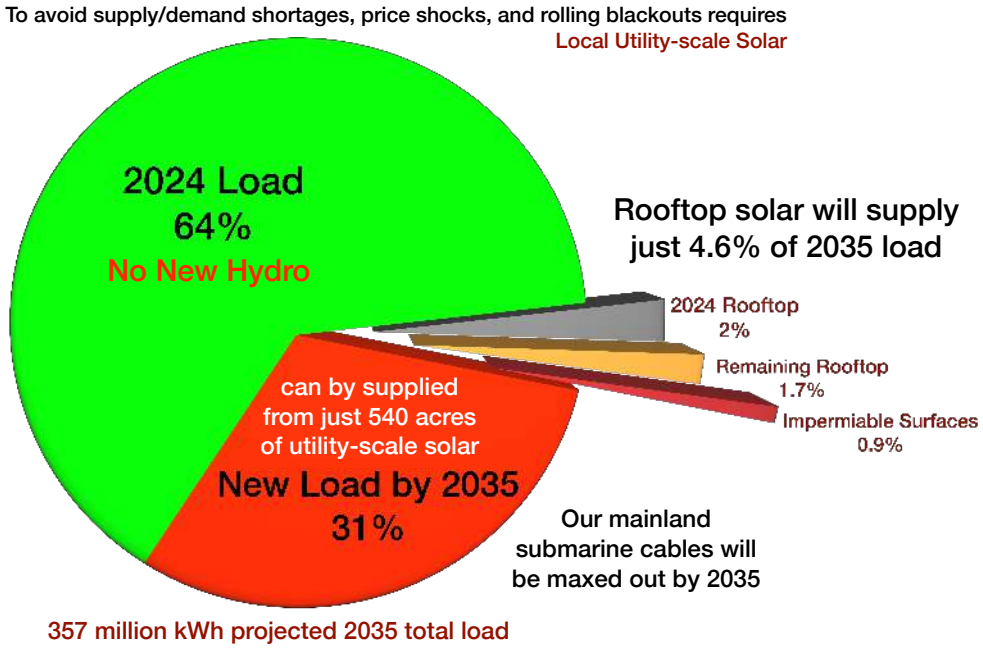
The latest analysis from BPA and NWPCC estimates shortfalls start this year, growing exponentially to a 30+ GW deficit by 2035. New mainland renewable projects will take decades to deploy.

To meet the need for new clean energy supply, most Washington utilities have new clean renewables and battery storage projects in the works, but most are cancelled due to not in my back yard (NIMBY) public pressure and antiquated permitting processes. To continue providing reliable power and meet

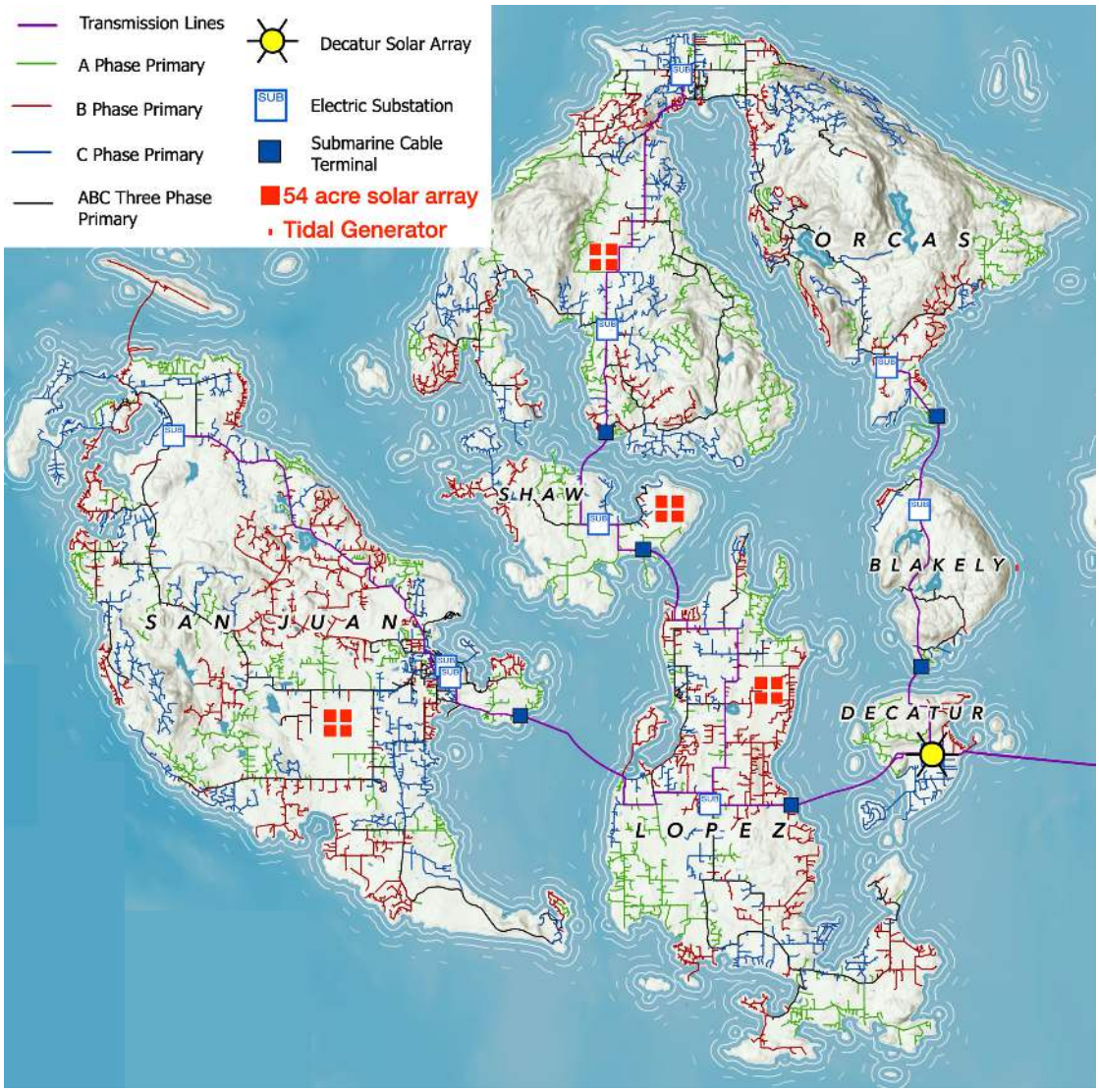
Washington's GHG reduction goals, the Northwest needs to add 2,500 MW of new utility-scale renewable projects annually - about 25 times faster than the current pace.

OPALCO expects unplanned mainland outages and rolling blackouts to increase exponentially between now and 2035. In addition, OPALCO estimates our two mainland submarine cables will be maxed out by 2035. The need for locally generated electricity from local renewables and other sources is vital to prevent economic disruption and preserve the County's environment.

OPALCO has very successful energy efficiency and rooftop solar programs in place. We have achieved California levels of efficiency and rooftop solar production, yet rooftop solar will only supply a small fraction of what is needed – less than 5% of the 2035 load. The rest will need to be met by local utility-scale generation. The chart below illustrates the projected generation mix, including current and remaining rooftop solar and commercial/impermeable surface solar, e.g., parking lots. It is worth noting that there is no new hydro, and, as mentioned above, snowpack is in decline, reducing future hydro capacity.



The County Vision states, "Our community strives for energy independence…we use renewable energy." To fulfill that vision and increase local energy resilience, OPALCO plans to deploy enough utility-scale microgrids (solar and battery storage) to meet all new load through 2035, power the county through the three sunny seasons, and power critical services and systems in the winter. The micro-grids use tilting solar arrays to track the sun and maximize winter solar production. The microgrids would be deployed on each ferry-served island, requiring about 218 acres per island. This represents about 0.5% of all county land. The picture below shows an example of just four 54-acre tracking agrisolar arrays per ferry-served island. The red squares are drawn to scale. Siting electric facilities serving locally generated electricity and its supporting infrastructure also supports the deployment of electric ferry and public transportation systems while reducing the need for mainland GHG-emitting fossil-fueled generation facilities.



Many countries are deploying microgrids in cooperation with farmers. This agrisolar is a harmonious blend of agriculture and solar energy production that enhances the land, boosts farming economics, and increases local renewable energy generation. Farming in the San Juans is not economic. The average farmer loses $51 per acre per year. (source 2022 USDA Census of Agriculture). For example, agrisolar collaborations with farmers with a Power Purchase Agreement for $6 per MWh would produce $10,000 per acre annually. In other applications, such as the Bailer Hill Microgrid, the land is offered to farmers at no charge, for grazing, growing pollinator and shade-loving crops, and increased land fertility, which is especially useful for the 30% to 50% of designated Agricultural Resource Land (ARL) in San Juan County which may have marginal or non-qualifying soils due to factors like rocky terrain, poor drainage, or steep slopes.

New Jersey has implemented a climate-friendly land-use policy that allows up to 5% of farmland to host agrisolar arrays. (source: https://csisolar.nj.gov/agricultural-land-use/). This is similar in scale to OPALCO's 218 acres per island plan.

Most islanders and farmers OPALCO has heard from support agrisolar. Working in collaboration with farmers, agrisolar would improve farming economics, helping farmers access farmland that would

otherwise be too expensive and improving the soil fertility of overfarmed agricultural land (e.g., extensive repeated haying). (Source: https://www.jackssolargarden.com).

Local Utility-scale Renewable Energy Protects Rural Character

Climate destruction will destroy rural character without concerted climate action to reduce GHG emissions. The most dramatic climate action we can take locally is to stop burning fossil fuels (especially for heating and transportation) and replace that energy with lower-cost, cleaner, local renewable energy. Utility-scale agrisolar has significant benefits:

- One-third of the cost of rooftop solar.
- Works during outages
- Tracks the sun for maximum winter performance
- 218 acres per island of utility-scale solar is equivalent to: Planting 4 million trees/yr for 10 years；Removing 52 million lbs CO2/yr coal generation； Not burning 26 million gallons of gasoline.
- Improves farmer economics, giving more farmers access to farmland that would otherwise be unaffordable. This helps produce more food locally, improves soil fertility and pollinators, and protects crops from increasing climate-driven heating and cloud cover reduction.

Climate change is destroying rural character. Heat domes, drought, extreme wind, wildfires, water shortages, extreme rain, flooding, sea level rise, climate migrants, ocean acidification, and ocean warming are all accelerating. To slow the pace of climate destruction requires the highest priority to be given to climate action. Ending the burning of fossil fuels and replacing them with clean, reliable, renewable energy sources is a top priority in the county and state. There is no free lunch. No easy answers. No perfect solutions. Delay is denial. Clean energy is not the problem; it is the solution.

Streamlining Local Renewable Energy Permitting and Land Use

The Bailer Hill Microgrid agrisolar project revealed cracks in an old land use permitting system. High-performance counties nationwide are streamlining their permitting and land use processes to speed the deployment of proven utility-scale solar systems.

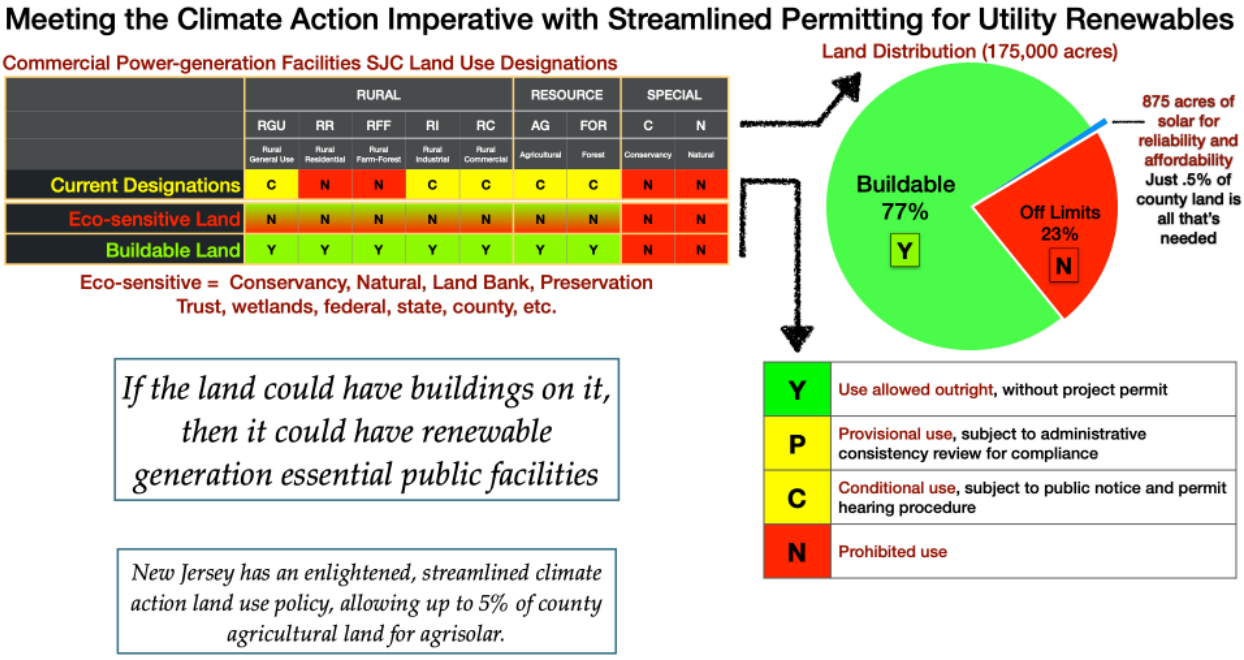
San Juan County has done this streamlining before. Ten years ago, during the broadband crisis, OPALCO and the county collaborated on developing Joint Use Wireless Facilities. This shared infrastructure used by multiple wireless service providers fostered the rapid development of reliable, ubiquitous cellular service in the County, improving healthcare, emergency services, public safety communications, and economic activity.

County land use designations should be similarly reviewed and updated for siting renewables. Increasing energy independence from the mainland will require predictable permitting processes to ensure the timely achievement of grant funding, site development, and GHG reduction. This is particularly so for agrisolar applications on Rural Farm, Forest, and agricultural land. Just as improved wireless land use designations fostered the rapid improvement of wireless services in the county, updating land use designations for local renewable energy sites can help accelerate the achievement of the vision of “energy independence.”

The chart below shows the current land use designations for Commercial Power Generation Facilities. It is based on last century's notion of noisy, polluting diesel generation. Modern utility-scale solar systems are quiet and clean and offer much less impermeable surface area than similar-sized buildings. OPALCO urges the county to streamline permitting utility solar systems on any buildable land. If the county allows buildings of any kind on the land, e.g., homes, barns, shops, etc., then utility solar microgrids should be uniformly allowed. Designated eco-sensitive lands would be off limits, e.g., Conservancy, Natural, Land

Bank, Preservation Trust, wetlands, etc.. Referring to the pie chart below, OPALCO estimates that about 77% of county land is considered buildable, and 23% is off-limits. The tiny blue slice represents the 540 acres of buildable land needed for local utility-scale solar. That's about 0.3% of all county land.

This streamlined permitting process provides permitting predictability while still retaining safeguards. All projects must comply with existing building regulations and go through the State Environmental Policy Act (SEPA) process that analyzes environmental impacts, including: Critical areas, Wetlands, Grading and clearing, Air quality, Ground water, Flood plain, Discharge of waste, Runoff, Invasive species, Comp Plan alignment, Light, Historical and cultural, Endangered species, Preservation, Storm water planning, Fire. and more depending on site specifications.



Electric utilities have a duty to serve, as defined by RCW 80.28.110, WAC 480-100-620, WAC 480-100-178. OPALCO must ensure the reliable delivery of power to all members.

Utilities that provide water, energy, and telecommunications are essential to San Juan County islanders' health, safety, and economic well-being. Each essential utility depends on other essential utilities to operate – Water and communications utilities need energy. Energy needs water, etc. The Growth Management Act (GMA) identifies essential public facilities (EPFs) as crucial for public health, safety, and welfare, but typically difficult to site.

Local utility-scale renewable generation is essential to meeting our obligations under the RCW's for planned population growth and GHG reduction. RCW 36.070a.020 (12) Public facilities and services states: "Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards."

According to WAC 365-196-550, essential public facilities (EPFs) are "typically difficult to site" and provide essential public services. The regulation emphasizes that the identification of an EPF depends on the nature of the facility and its necessity in providing a public service, rather than the operator's identity.

Specifically, it states: “The major component in identifying an essential public facility is whether it provides or is necessary to provide a public service and whether it is difficult to site.”

Local renewable energy generation facilities, such as utility-scale solar generation microgrid facilities, align with the criteria outlined in WAC 365-196-550:

- Provision of Public Service: These facilities generate electricity, a fundamental public utility essential for residential, commercial, and industrial activities.
- Difficulty in Siting: Renewable energy projects often face challenges in siting due to factors like land availability, environmental concerns, and public opposition, making them “difficult to site.”

Given these attributes, local renewable energy generation facilities can be considered EPFs under the WAC’s framework.

By recognizing local renewable energy generation microgrids as essential public facilities, counties and cities are guided to:

- Develop Siting Processes: Establish clear procedures in their comprehensive plans for identifying and siting such facilities, ensuring that local regulations do not preclude their development.
- Facilitate Infrastructure Development: Acknowledge the critical role of renewable energy infrastructure in meeting public utility needs and GMA requirements and incorporate supportive policies in local planning documents.

Recognizing the need to streamline renewable energy projects, in 2023, Washington State enacted Senate Bill 5290 (SB 5290) to streamline the permitting process for project applications. This legislation introduced a “shot clock” mechanism, mandating that local governments issue final decisions on project permits requiring public notice within 100 days of determining the application’s completeness. The “shot clock” begins once the application is complete and includes all calendar days.

SB 5290 aims to expedite project approvals, promoting efficiency and predictability in the development process across Washington State.

Growth Management Act and Utilities

In Washington State, the Growth Management Act (GMA) mandates that counties ensure the availability of adequate water and power to support future population growth through comprehensive planning.

RCW 36.70A.020 (Planning Goals) emphasizes ensuring public facilities and services are adequate to serve development at the time it becomes available.

RCW 36.70A.070 (Comprehensive Plans - Required Elements) mandates counties plan for infrastructure, including utilities necessary to support future growth. This includes water supply and electric power. Ensuring adequate infrastructure to support projected growth inherently involves considerations of utilities such as water, electricity, and communications. Planning for sufficient power supply is an implicit aspect of ensuring that infrastructure and services are adequate to support anticipated development.

Specifically, RCW 36.70A.070 outlines the required elements of a comprehensive plan, including:

1. Land Use Element: This element must designate the proposed distribution and location of various land uses, considering population densities and future growth estimates. It also requires provisions to protect the quality and quantity of groundwater used for public water supplies, recognizing that, like water, energy is also essential for supporting future population growth.

2. Capital Facilities Plan Element: This component requires:

    - Inventory of Existing Capital Facilities: A detailed account of current facilities, including their locations and capacities.
    - Forecast of Future Needs: Projections of the requirements for such facilities to accommodate anticipated growth.
    - Proposed Locations and Capacities: Plans for new or expanded facilities to meet these future needs.
    - Six-Year Financing Plan: A strategy outlining how these capital facilities will be financed within projected funding capacities, clearly identifying public funding sources.
    - Reassessment Mechanism: A process to reevaluate the land use element if probable funding falls short, ensuring coordination and consistency among the land use element, capital facilities plan, and financing plan.

Additionally, RCW 36.70A.020 sets forth planning goals to guide the development of comprehensive plans and development regulations. One of these goals is to ensure that public facilities and services necessary to support development are adequate to serve the development at the time it is available for occupancy and use, without decreasing current service levels below locally established minimum standards. OBJ

In summary, Washington State law requires counties to assess and plan for adequate water supplies to meet future population growth through their comprehensive planning processes. While not explicitly stated,

San Juan County must ensure adequate water and power to meet anticipated development. While is it can delegate operational responsibilities to electric cooperatives and independent water associations, it must actively coordinate and plan to ensure that infrastructure capacity is sufficient to meet projected growth. This includes setting land use regulations that enable these providers to expand capacity as to meet anticipated development.

Utilities and Affordable Housing

The county's severe shortage of affordable housing is causing persistent difficulty recruiting staff for utilities like OPALCO and Rock Island Communications, as well as County Government and other institutions with substantial workforces. Institutions search far and wide to find and attract skillful, qualified workers. The recruiting cycle can take a year or longer and often fails at the end due to an inability to find affordable housing.

Affordable housing is very limited for low-income and middle-income islanders.

The construction cost of ordinary homes routinely exceeds $700 to $800 per square foot.

It takes a skilled workforce to ensure reliable power and internet services; OPALCO and Rock Island require access to more reasonably priced housing stock and density bonuses without income restrictions. Additional measures, such as waiving permitting costs and reducing property taxes for worker houses, will also help.

Streamlining and innovating the housing development and permitting process can help alleviate the housing shortage. Increasing supply reduces the demand-driven inflation that has made housing in the county so expensive.

For example, finding ways to ease the burden of multi-unit worker housing on single residence lots, agricultural land, or rural farm forests would speed its construction and reduce the often arduous process and expense of permitting and construction in the county. Such worker housing can provide an invaluable bridge to longer-term housing.

Recommendations for increasing affordable housing for both low and medium-income households:

- Allow companies that own buildable land to construct affordable multi-unit worker housing on their land.
- The county should provide density bonuses to institutions that develop their land for affordable worker housing for both low AND middle-income workers. Density bonuses are incentives that allow developers to build more units or larger buildings than normally permitted by zoning regulations in exchange for providing certain public benefits. These bonuses are often used to encourage affordable housing, environmental sustainability, or other community benefits. For example, the county could allow developers to exceed height or unit limits if they include a percentage of affordable housing units in their project. Other common public benefits tied to density bonuses include green building features, transit-oriented development, and dual-use agrisolar energy and food production.
- Farmers in many communities will put up temporary housing during picking season. With utility-scale agrisolar land, multi-unit affordable housing could be built to house utility workers and farmers working the agrisolar land. This helps farmer economics by removing the need to buy land for farming while providing affordable housing on the land they are farming. The roofs of the multi-unit housing could host additional solar arrays.
- OPALCO and other institutions could buy land and develop single-family housing to attract workers relocating to the islands. The worker could then buy that home from the institution. The institution could take sale proceeds and buy another site for development and sale to future employees. This development model makes housing and development more affordable for buyers and institutions.
- OPALCO has members who want to donate land to the co-op through an OPALCO 501c3. This donated land could be used for hosting local renewable generation and worker housing described above, with benefits like the San Juan Preservation, e.g., discounted permit fees and property tax, further easing the economic calculus of affordable housing development.

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

Propane

There are no natural gas lines in San Juan County. Currently, the population relies heavily on propane. Propane tanks are not allowed on Washington State Ferries. Propane utility providers transport propane by barge from the mainland to their distribution centers on San Juan, Orcas, and Lopez islands.

The County should seek to decrease demand for propane as the population increases by encouraging alternative renewable energy sources, such as home and utility-scale solar energy installations. There have also been recent changes to the State building code and greenhouse gas emission reduction requirements in an effort to meet Washington State Greenhouse Gas targets for energy efficiency.

Communications

San Juan County encourages the development of advanced communication infrastructure. Reliable, up-to-date communication services support everything from healthcare and public safety to economic

opportunity and modern lifestyles. Geographic isolation and relatively small resident populations have historically inhibited the extension of telecommunication services to some islands in the County. Today, Fiber and LTE are providing faster and more expansive communication services.

- **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 residential and business broadband and cell phone service. Approximately half of County addresses are located within a serviceable distance of existing fiber optic facilities. As demand for higher bandwidth and additional improvements are made to public infrastructure, the availability of fiber optic services is expected to continue to grow.
- **Voice over Internet Protocol (VoIP):** Anyone with a reliable internet connection can purchase VoIP service, which is becoming more common as internet access and speed increases. It is the predominant method for non-wireless voice communications around the nation, particularly for businesses.
- **Fixed Wireless:** Fixed wireless provides high speed internet service throughout the County by multiple providers.
- **Fixed Wireless – Cellular Service:** All major cellular carriers have coverage to an extent in the County; however, the geography currently limits coverage in some areas. For some residents and visitors, lack of cell service poses a safety concern because it would be difficult to call for help in the case of an emergency.
- **Plain Old Telephone Service (POTS):** Use of POTS has decreased in the recent years as consumers discontinue landline service or switch to VoIP.
- **Cable:** Cable internet and television services are available from multiple providers in parts of Friday Harbor and Orcas Island. Use of cable services is declining as fiber and wireless broadband become more popular.

Key Challenges

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

- Preparing to serve the County's 2045 forecasted population in Plan Appendix 1;
- Meeting energy and telecommunications needs within and outside of population centers;
- Reducing greenhouse gas emissions;
- Reducing the environmental impact of all forms of energy we use;
- Achieving the vision of energy independence;
- Increasing energy efficiency; and
- Working with the challenges presented by the islands' unique geography.

Utilities Goals and Policies Matrix

Color Guide

Header

Goal

Policy

New Goal or Policy

Existing Goal / Policy #	Existing Goal / Policy language	Review notes	Changing? Yes/No	Reason for change	New Goal / Policy #	New Goal / Policy language
Goal 1	Coordinate and streamline 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 maintaining consistency between utility service plans and County plans.		Yes		Goal U-1	
Policy-1.1	Provide utility service providers with appropriate plans and mapped information to help establish a common County-wide base map for utilities planning.		No		Policy U-1.1	
Policy-1.2	Obtain maps and facility inventories, with text designating the approximate location of existing facilities and the general location of proposed new facilities from utility service providers and integrate them into the County's Geographic Information System (GIS).		No		Policy U-1.2	
Policy-1.3	Provide utility service providers with the six-year capital improvement financing plan to aid in their ability to coordinate necessary system improvements.		No		Policy U-1.3	
Policy-1.4	Cooperate with utilities and streamline siting facilities for new and alternative technologies to increase energy independence, save money and promote reliability of existing utilities by conserving		Yes		Policy U-1.4	

	existing energy resources, developing local utility scale generation, and promoting energy-saving technologies.					
Policy-1.5	Cooperate with utility service providers in future comprehensive planning efforts to evaluate actual patterns and rates of growth and compare them to demand forecasts.		No		Policy U-1.5	
Goal 2	Streamline the timely and cost-effective provision of utility services to County residents by enabling inter-agency joint project planning and ensure the availability and use of utility corridors within public rights-of-way for the placement of utility service facilities.		Yes		Goal U-2	
Policy-2.1	Facilitate inter-agency coordination and planning for joint trenching, installation, upgrade, repair, maintenance, and construction of new utility facilities between the Public Works Department, the various utility service providers, and other agencies.		No		Policy U-2.1	
Policy-2.2	Provide timely notification of proposed projects in public rights-of-way to utility service providers and coordinate the placement of both above- and underground utility facilities, which are necessary to provide adequate service, including utility-scale renewable energy generation, transformers, switch vaults, telephone pedestals, utility equipment cabinets, and other necessary utility equipment or structures.		Yes		Policy U-2.2	
Policy-2.3	Allow for utility services in new dedications for public rights-of-way.		No		Policy U-2.3	
Policy-2.4	Encourage consultation between permit applicants and utility providers during the permitting process for installation of utility systems.		No		Policy U-2.4	
				New policy recommended by the County's Climate Team.	Policy U-2.5	Support community dialogue, planning, and proactive management of vegetation in right of ways and utility corridors, in a manner consistent with environmental policies within the

						County, while managing for fire risk hazard.
Goal 3	Foster predictability and timeliness in processing permit applications for utilities to allow for necessary development, maintenance, repair, improvement, and expansion of utility facilities and worker housing in a timely and efficient manner.		No		Goal U-3	
Policy-3.1	Streamline permitting processes to improve predictability, timeliness, and efficiency of utility permitting and meet or exceed the requirements of SB 5290.		Yes		Policy U-3.1	
Policy-3.2			Yes		Policy U-3.2	Streamline the permitting of utility-scale agrisolar on agriculture land up to a 5% cap of county agricultural land. (see similar NJ policy: https://csisolar.nj.gov/agricultural-land-use/)
Policy-3.3			Yes		Policy U-3.3	Streamline and innovate the housing development and permitting process to alleviate the worker housing shortage.
Goal 4	Protect rural character from climate destruction by reducing greenhouse gas emissions using local renewable energy to power clean transportation and heating and displace mainland fossil-fueled energy generation.		Yes		Goal U-4	
Policy-4.1	Require new utility distribution lines for new development to be installed underground. Services for single-family residential construction on an existing parcel may connect with existing overhead utility facilities.		No		Policy U-4.1	
Policy-4.2	Require new development to be designed so that utility easements are accessible and have sufficient capacity for installation of the full range of required utility services.		No		Policy U-4.2	
Policy-4.3	Require landscaping to buffer adjacent uses for new utility installations excluding aboveground utility facility development and distribution or transmission corridors when located outside a public right-of-way.		No		Policy U-4.3	

Policy-4.4	Locate and site utility facilities to minimize negative impacts to the rural character and natural environment, except where such facilities help reduce greenhouse gas emissions and facilitate agrisolar partnerships with farmers.		Yes		Policy U-4.4	
Policy-4.5	New utility generation facilities, transmission facilities, substations and submarine transmission cable terminal facilities should be located and sited to minimize adverse impacts to the County's shorelines and rural character.		No		Policy U-4.5	
Goal 5	Protect and preserve natural habitats and environments while also providing for the location and extension of necessary utility facilities.		No		Goal U-5	
Policy-5.1	Locate new utility facilities away from, or construct them in a manner compatible with, critical areas, resource lands, and shorelines.		No		Policy U-5.1	
Policy-5.2	Condition the approval of new utility facilities to avoid or mitigate any significant adverse impacts on critical areas, resource lands, and shorelines.		Yes		Policy U-5.2	
Policy-5.3	Ensure that utility service providers are responsible for costs such as those associated with damage caused to the environment and public rights-of-way so that providers will seek to minimize those costs in their planning, decision-making, and project execution.		No		Policy U-5.3	
Policy-5.4	Recognize that the geographic character of the County requires access to and the ability to cross shorelines and waterways to connect utilities and that utility facilities must occupy and traverse a broad range of areas and land use designations.		No		Policy U-5.4	
Policy-5.5			Yes		Policy U-5.5	Prioritize and streamline permitting of utility-scale renewable energy generation on all buildable land that are not critical areas, resource lands, shorelines, conservancy, Land Bank, or Preservation Trust.

Goal 6	Minimize the environmental impacts of climate change and electricity production and use while promoting energy independence.		Yes		Goal U-6	
Policy-6.1	Encourage utility service providers to explore innovative and alternative methods of producing energy such as agrisolar.		Yes		Policy U-6.1	
Policy-6.2	Work with the San Juan County Conservation District and OPALCO to promote utility-scale solar projects and provide technical assistance and incentives to increase individual home solar installations.		Yes	Suggested edit from County's Climate Team.	Policy U-6.2	Work with OPALCO to promote utility-scale and agrisolar projects and provide technical assistance and incentives to increase individual home solar installations and collaboration with farmers on agrisolar projects.
Policy-6.3	Encourage utility providers, Washington State Department of Transportation (WSDOT), and the public to reduce greenhouse gas emissions.		No		Policy U-6.3	
Policy-6.4	Adopt regulations that allow facilities that support the generation and distribution of clean renewable electricity for cleaner transportation including electric vehicles and electric ferries.		Yes		Policy U-6.4	
Policy-6.5	Streamline the permitting and provision of electric vehicle chargers at key destinations throughout the County.		Yes		Policy U-6.5	
Policy-6.6	Increase energy efficiency of buildings and systems on the islands by: • Providing educational materials and supporting education on energy efficiency in buildings, beyond State energy efficiency requirements; and • Installing solar panels on new and updated County buildings when feasible.		No		Policy U-6.6	
Policy-6.7	Ensure that agrisolar installations are sited and designed in collaboration with farmers on agricultural land, allowing for flexibility in future agricultural activity, and maximizes potential for multiple benefits from "agrivoltaics".		Yes	Suggested edit from County's Climate Team	Policy U-6.7	Work with utilities and the public to develop a streamline specific solar siting policy for utility-scale solar projects that collaborate with farmers, and siting on urban core/ impervious areas rooftops, and already impacted developed land, and all buildable land.

Goal 7	Collaborate with the Orcas Power and Light Co-Operative (OPALCO) in achieving its goals for local energy resiliency.		No		Goal U-7	
Policy-7.1	Assist OPALCO when necessary to respond to new, unforeseen conditions and technologies that may affect utility operations and facilities.		No		Policy U-7.1	
Policy-7.2	Coordinate and streamline 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.		Yes		Policy U-7.2	
Policy-7.3	Locate and site new upland power transmission facilities, substations, and submarine transmission cable terminal facilities to minimize adverse impacts to the rural character, shorelines, and natural environment of the County.		No		Policy U-7.3	
Policy-7.4	Streamline pilot programs to quickly evaluate new renewable energy sources consistent with the goals and policies of this Plan and that comply with all regulations.		Yes		Policy U-7.4	
Policy-7.5	Provide opportunities within land use designations for the development and use of renewable energy resources which reduce greenhouse gas emissions helping protect the natural environment and rural character.		Yes		Policy U-7.5	
Policy-7.6	Streamline the transition toward energy independence from the mainland by up to 50 percent by the year 2040.		Yes	Suggested edit from County's Climate Team	Policy U-7.6	Streamline the transition to up to 30 percent local renewable energy production on an annual energy (GWh) basis by the year 2035.
Policy-7.7			Yes		Policy U-7.7	Identify utility-scale renewable generation facilities as essential public facilities, recognizing that they ensure local energy resilience for other essential public facilities, including telecommunications systems, water utilities, public safety systems, and economic infrastructure.

Goal 8	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.		Yes	Last section removed to make sentence shorter. The removed section is already its own policy (Policy U-8.2)	Goal U-8	Promote the widespread availability of communication systems to facilitate communication among members of the public, public institutions, government agencies, and businesses.
Policy-8.1	Identify telecommunications facilities developed and operated expressly to carry out emergency services as essential public facilities.		No		Policy U-8.1	
Policy-8.2	Promote the public service, safety advantages, and economic opportunities of widespread availability of state-of-the-art telecommunications technology by reviewing potentially suitable personal wireless facility locations as needed.		Yes	Edited for clarity.	Policy U-8.2	Promote the public service and safety advantages and economic opportunities of widespread availability of state-of-the-art telecommunications technology by reviewing potentially suitable personal wireless facility locations as needed.
Policy-8.3	Support development of telecommunications facilities to promote public safety and economic opportunity.		No		Policy U-8.3	
Goal 9	Regulate and assure safe handling and distribution of propane within the County.		No		Goal U-9	
Policy-9.1	Identify appropriate land use designations and safety criteria for the siting of bulk fuel storage.		No		Policy U-9.1	
Policy-9.2	Support the use of historic barge landings that have served as landing sites for transporting bulk fuels.		No		Policy U-9.2	
Policy-9.3	Work with the Ports, the Town of Friday Harbor, WSDOT, and propane distributers to develop safe transportation and circulation routes for the transport of propane.		No		Policy U-9.3	