Adam Zack

From: Suzanne Olson <SOlson@opalco.com>
Sent: Thursday, November 30, 2017 4:43 PM
To: Comp Plan Update
Cc: Erika Shook; Adam Zack; Foster Hildreth; Jay Kimball
Subject: SJC Comp Plan Workgroup Comments
Attachments: Workgroup Comp Plan - R4.pdf

Sent on behalf of the Comp Plan Workgroup:

Dear County Council and Comprehensive Planning team,

Thank you for the opportunity to provide comment and analysis related to the development of the new County Comprehensive Plan.

The material below is a collaborative grassroots effort from a number of islanders and stakeholders in the county - the result of much discussion, analysis, and preparation of material - for your review. In preparation for submitting this material, we met with the county - Erika Shook, Director of Community Development, and her planning team. It was a good and productive meeting. Erika encouraged us to prepare the material using the current Comp Plan as a foundation for edits. The material below draws on verbatim text of the current
Comp Plan, and adds red-line edits throughout, to highlight the workgroup recommended changes.

The workgroup material draws on a wide range of material, including Housing studies, OPALCO's Integrated Resource Plan (IRP), Conservation Potential Assessment (CPA), EDC data, etc. We also participated in County pop-ups and studio workshops. While we draw on that material - interpretations and analysis are our own, and an independent product of the workgroup, and in no way associated with the county. The workgroup is independent and not an official workgroup associated with San Juan County or the San Juan County Comprehensive Plan update.

This material is a collection of individual workgroup member submissions. While the material provided here represent individual contributor points of view, assessments and recommendations, in recognition of the collaborative process undertaken here, the Comp Plan Workgroup endorses this material, in toto.

The workgroup stands ready to provide support, guidance, data and analysis to the county Comp Plan team as you develop the forthcoming Comp Plan objectives and policy.

Thank you, San Juan County Comp Plan Workgroup:

Bill Appell	Waldron
Winnie Adams	OPALCO Board
Sandy Bishop	LCLT
Victoria Compton	EDC
Vince Dauciunas	OPALCO Board
Bob Dash	Orcas School
Kyle Dodd	SJC Environmental Health
Nora Ferm	Islands Climate Resilience Steering Committee
Bob Gamble	
Chom Greacen	LCLT, Island Energy
Chris Greacen	
Foster Hildreth	OPALCO, GM

Jay Kimball	OPALCO consultant
Paul King	Orcas Song Farm
Linda Lyshall	Conservation District
Bob Maynard	EPRC
Rhea Miller	LCLT
Todd Nicholson	Port of Friday Harbor
Ryan Page	Affordable Housing Coordinator
Greg Sawyer	SJC Facilities Manager
Bill Seversen	
Brian Silverstein	OPALCO Board
Rick Strachan	

We will also mail a paper copy to Department of Community Development, PO Box 947, Friday Harbor WA 98250, attn.: Adam Zack, and Arika Shook

Should you have trouble downloading or viewing this document, please reply back to Jay Kimball (jay@mountaincedar.com) and we will arrange for an electronic version of the document, to be delivered by other means.

Best,

Suzanne

--
Suzanne Olson
Public Relations Administrator
360-317-7203

warm & cozy Project PAL.

SJC Comp Plan Workgroup Document

a model community

vibrant local economy

low carbon footprint

affordable for all

resilient

for now

and generations to come

23 November 2017

Memo to San Juan County Council and Planning Team

San Juan County Council
350 Court Street, No. 1
Friday Harbor, WA 98250

28 November, 2017

We thank the San Juan County Comprehensive Planning team for the opportunity to provide comment and analysis related to the development of the new County Comprehensive Plan.

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Background

San Juan County is preparing an update to its Comprehensive Plan. The Comprehensive Plan (Comp Plan) is the centerpiece of local planning in the County. Like a business plan, the Comp Plan provides the framework for how our community will grow. The Growth Management Act requires periodic updates to the plan, at least once every eight years. The County's periodic update is due in June 2018.

There are three primary purposes of the Comp Plan update:

- Review plan and regulations and bring them up to date with any relevant changes to state law and the Growth Management Act (GMA);
- Respond to changes in land use and population; and
- Address any local preferences or needs.

Executive Summary

If we look back at how much has happened since the last county Comp Plan update – the extraordinary changes in the world, changes in climate, energy, transportation, efficiency, housing, internet… – we see extraordinary challenges, and we see the promise of a remarkable period of abundance ahead for the county, given carefully considered choices and well defined actions.

As will be seen in the detailed material below, this Comp Plan Workgroup believes the county can become a "lighthouse" of innovation, quality of life and economic wellbeing. One example: The unfolding global electrification of heating and transportation promise to stimulate our local economy through four-fold improvements in efficiency, keeping more dollars in-county, more dollars in home and business members pockets, reduced carbon footprint, and improved comfort and convenience.

With a strong economic foundation, beyond a tourism economy, powered by increasingly local energy resources, and connected through a world-class communications network, the stage is set for a more robust resilient local low-carbon economy.

Workgroup Comp Plan Process

In the following sections, using a top-down approach, we started with a variety of examples of other Comp Plans that can inform how we think about our own future. Ultimately this high level material served as background for *specific language* to be incorporated into the county Comp Plan.

Each element section below incorporates material from:

- past County Comp Plan
- current Comp Plan material (if it exists yet)
- related material from other community comp plans
- background narrative pertinent to the Element
- and finally, the *specific language* we would like to see in the new county Comp Plan

An addendum section serves as a clearinghouse for information on workgroup participants and an archive of their submitted material, general content, trends analysis, including high level view of energy and related trends and economic analysis, to establish a baseline from which to describe challenges, and form vision, goals, objectives, and approaches to these challenges.

The *Specific Language* section of each Element is offered to assist the county by providing language that can, at the very least, be pasted into their working document, to serve as a starting point for their development of Comp Plan language related to each element. Using existing comp plan text as a foundation (black type), new material in the form of edits, deletions and additions are presented in red or orange text.

Comp Plan Examples

To consider and catalyze what is possible, and benefit from other communities that have recent upgrades to their Comp Plans, the following few sections offer highlights and links to Comp Plans from other parts of the US, including Martha's Vineyard and Nantucket – two island communities that share some common objectives and challenges with San Juan County.

Martha's Vineyard Comp Plan - Highlights

The Martha's Vineyard Comp Plan offers thought-provoking analysis, strategy and implementation details in a readable, well structured format. Leading with *Challenges*, followed by *Goals*, the bulk of the document details specific *Objectives* and *Strategies* for achieving those goals.

From an energy perspective, their local renewable energy of choice is wind power. Wind there is substantial. Even though cost of wind has become much more affordable, they acknowledge that build out of local renewable energy resources would be at great cost.

The entire plan may be viewed here: http://mvcommission.org/sites/default/files/docs/Island_Plan_Web_Version.pdf

Nantucket Comp Plan - Highlights

Another island community, Nantucket, has a Comp Plan with a wealth of demographic data, followed by a fairly conventional linear statement of Vision, Mission, Values, Goals, and Policy.

From an energy perspective, there is not much to sink our teeth into. As with Martha's Vineyard, they are looking at development of local renewable energy resources such as wind, solar and tidal, but they are lacking in specifics.

The entire plan may be viewed here: http://www.nantucket-ma.gov/DocumentCenter/View/1050

San Diego 2015-2020 Strategic Energy Plan - Highlights

Though not and island community, San Diego has an energy plan with some concise examples of energy policy, objectives and recommended actions.

Perhaps most useful, the material is presented in a concise way that could serve as a template for presenting plan material to the public. The template leads with Strategy, Objectives, and Key Focus Areas. Each Focus Area is then detailed with Goals, Performance Metrics and Approaches.

The entire plan may be viewed here: http://www.sandiegocounty.gov/content/dam/sdc/dgs/Doc/Energy_StrategicEnergyPlan.pdf

Bellingham, WA

https://www.cob.org/Documents/planning/comprehensive-plan/2016-capital-facilities-utilities.pdf

Olympia, WA

http://olympiawa.gov/city-government/codes-plans-and-standards/olympia-comprehensive-plan.aspx

Lawrence Township, NJ

http://www.lawrencetwp.com/documents/planning/Lawrence%20Sustainability%20Element.pdf

Bainbridge Island, WA

http://www.bainbridgewa.gov/615/Navigate-Bainbridge-Comprehensive-Plan-U

Other Useful Links

https://www.bloomberg.com/graphics/2017-oil-projections/

https://www.iea.org/publications/freepublications/publication/GlobalEVOutlook2017.pdf

https://www.scribd.com/book/358068555/NCA3-Climate-Change-Impacts-in-the-United-States-HighRes

San Juan County Comp Plan Overview

The home page for the 2018 Comp Plan update is here: http://www.sanjuanco.com/1079/Comprehensive-Plan-Update

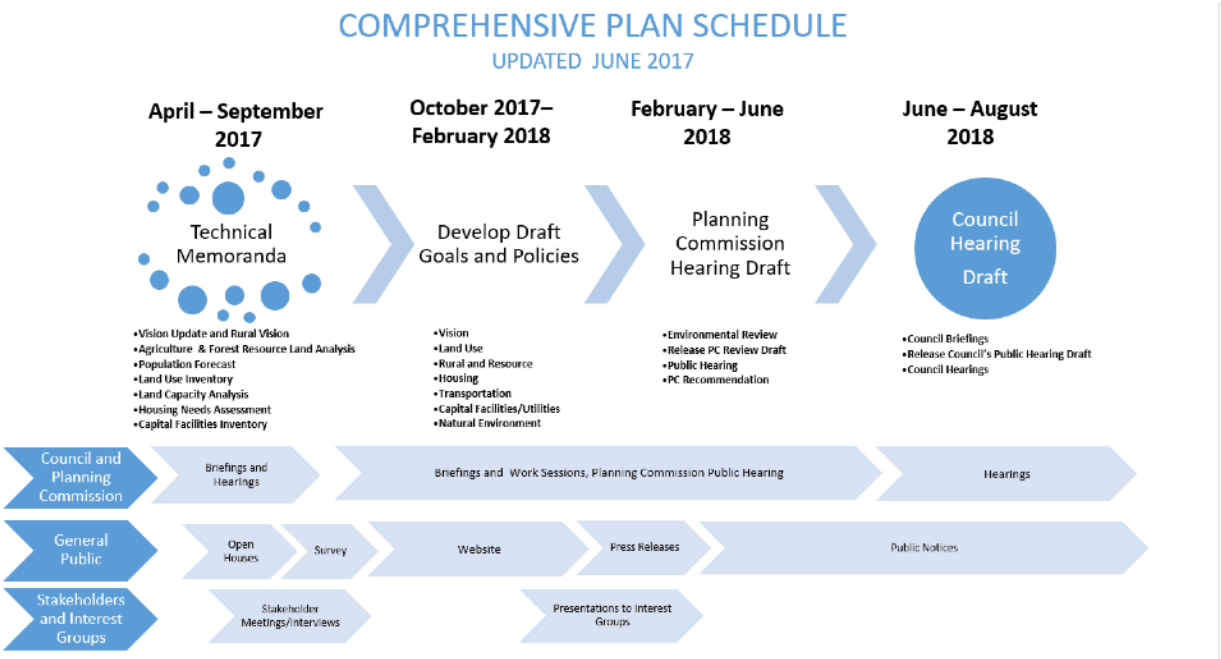
There are three primary purposes of the County Comp Plan update:

- Review plan and regulations and bring them up to date with any relevant changes to state law and the Growth Management Act (GMA);
- Respond to changes in land use and population; and
- Address any local preferences or needs.

The previous (current) Comp Plan can be viewed at: http://www.sanjuanco.com/510/Comprehensive-Plan

Comp Plan Update Schedule

Revised June 2017



Comp Plan Elements

The new Comp Plan website is here: http://www.sanjuanco.com/1306/Comprehensive-Plan-Elements

The website provides tabbed access to new material being developed. The new Comp Plan has the following elements:

- Vision (including Values and Priorities)
- Population
- Land Use
- Housing
- Water
- Transportation
- Capital Facilities
- Utilities
- Natural Resource Land
- SEPA

San Juan County Comp Plan Reference Material

The material below details out each element of the County Comp Plan.

Each element section has material from:

- past County Comp Plan
- current Comp Plan material (if it exists yet)
- related material from other community comp plans
- background narrative pertinent to the Element
- and finally, the *specific language* we would like to see in the new county Comp Plan

Previous Comp Plan Material

From SJC current Comp Plan:

A DECLARATION OF VISION AND COMMITMENT TO THE FUTURE OF SAN JUAN COUNTY

PREAMBLE

WE THE PEOPLE of San Juan County recognize that these rural islands are an extraordinary treasure of natural beauty and abundance, and that independence, privacy and personal freedom are values prized by islanders. Being a diverse people bound together by these shared values, we declare our commitment to work towards this vision of the San Juan Islands in 2020 A.D.

COMMUNITY

We envision a community that is primarily rural, made up of islands of varying character, each with its own unique qualities. The islands are places of peace and mutual tolerance, where citizens of differing backgrounds and beliefs respect each other's dignity, privacy, and freedoms. We communicate effectively and openly and work together toward goals identified as being for the common good. We foster a sense of neighborliness, of self-sufficiency, and community pride that has long been a part of our island character.

BASIC HUMAN NEEDS

Our islands are places where all citizens can safely walk or play, day or night. The drinking water supply is clean and adequate. Health care and help in time of need are accessible and affordable. The supply of affordable housing is adequate to meet the needs of our diverse population.

EDUCATION

Learning is a continuing lifelong process which is encouraged and aided by the community. A partnership of families and community creates a supportive and challenging environment founded on academic excellence and artistic expression. This educational environment produces ethical, self-directed, compassionate, responsible world citizens, alive with the love of learning.

ECONOMY

We support a pattern of economic growth and development which serves the needs of our community, and which recognizes the rural, residential, quiet, agricultural, marine and isolated nature of the islands. Our economy comprises a wide spectrum of stable, year-round activities that provide employment for islanders. We support and encourage traditional industries including forestry, farming, aquaculture, construction, fishing and tourism without jeopardizing the resources on which they depend. We have home occupations and cottage industries which are compatible with surrounding neighborhoods. We encourage new ideas and new technology for improving the quality and profitability of our goods and services. Value-added activities are encouraged. Environmental conservation and sustainable development are balanced.

NATURAL ENVIRONMENT

Our islands have exceptional natural beauty and healthy diverse ecosystems surrounded by pollution-free marine waters. The air is fresh and clean, the water quality is excellent, and the soil is uncontaminated. As careful stewards of these islands, we conserve resources, preserve open space, and take appropriate action to assure healthy land and marine environments. Native plants and animals of the islands thrive, and are identified, appreciated and conserved.

LAND USE

Neighborhoods, hamlets, villages and towns are clearly defined so as to conserve agricultural, forest, mineral resource and environmentally sensitive lands. These areas provide for commerce and community activities without losing their small scale and attractive island ambiance. There is housing for people of all incomes. The unique character of our shorelines is protected by encouraging uses which maintain or enhance the quality of the shoreline environment. Through innovative land use strategies, our citizens and institutions balance and protect private property rights, public rights, and our natural environment.

TRANSPORTATION AND COMMUNICATION

We have water, land, and air transportation systems commensurate with our island culture. On-island circulation is by means of a system of scenic rural roads with automobile, bicycle and pedestrian ways functioning without conflict. In some places, the roads are unpaved, narrow, and winding, and care is taken to maintain a rustic quality in public signs. Expansion or new construction of basic public transportation facilities occurs only on the basis of demonstrated local public need. Advanced interactive communication systems are encouraged.

ENERGY AND RESOURCES

Our community fosters resource and energy conservation. Energy independence is encouraged. Recycling, solid waste, and sewage treatment are managed within the confines of each island in an environmentally sound manner. Renewable natural resources are used on a sustainable basis. Nonrenewable resources are conserved wherever possible and practical.

ARTS, CULTURE AND RECREATION

Our community nurtures the expression of its creative talents and supports diverse cultural and entertainment activities. Our cultural facilities such as libraries, museums, and theaters are focal points of activity and community support. Well managed parks, trails, and shoreline access, where appropriate, provide islanders with recreation with due regard for both the rights of private property owners and the natural limitations of each site.

HERITAGE AND HISTORIC PRESERVATION

Our community is enriched by a strong sense of identity, tradition, legacy, and continuity, where past and present freely mingle. We recognize the contributions to our rural and maritime heritage made by indigenous peoples, explorers, and island pioneers, and encourage the preservation of that heritage. We encourage preservation of historic sites, structures, and traditions for the enjoyment of all.

GOVERNANCE

We are self-governed by informed citizens. We are equally represented by elected officials who conduct the activities of government in an ethical, fair, impartial, responsive and open manner which recognizes the independent, self-reliant nature of its citizens. Our government institutions balance responsibility with resources and costs, consolidate services where practical, manage prudently, provide reliable data, are service-oriented, and perform in a timely manner.

OUR COMMITMENT:

AS FORTUNATE CITIZENS OF THE SAN JUAN ISLANDS, WE COMMIT ourselves individually and communally to a future for ourselves and our children that reflects this vision. To this end, we, the undersigned individuals dedicate our time and our talents.

New Comp Plan Material

The county has prepared a visioning scope of work. See: http://www.sanjuanco.com/DocumentCenter/Home/View/12775

As part of their vision development process, the will conduct stakeholder interviews, pop-up studios, and workshops to gather input needed to update the Comprehensive Plan vision, values and priorities.

The work is to be completed by 31 December 2017.

The visioning process will develop:

- Vision
- Values
- Priorities

Background Narrative

The Comp Plan has the power to transform San Juan County into a model community that values and empowers its citizens, now, and for future generations. For all of us - rich and poor, young and old, growing up, working and retired.

From an energy perspective, OPALCO's goal is to ensure reliable, secure, ample, affordable, and environmentally sound energy. OPALCO will source as much of its energy as possible from energy resources that are low carbon, renewable and, increasingly, local.

Over the past few decades, growth of the county has significantly changed the Island community and our way of life. On a finite planet, in our finite archipelago, our growth is, of course, finite.

While growth may be finite, there are things we can grow that are beyond traditional economic metrics. Like a garden, we can grow energy independence, abundance and resilience by planting the seeds for local renewable energy. We can grow clean air and water. We can grow affordable housing. We can grow more efficient homes and businesses. We can grow good jobs that pay more than just a living wage.

Our rural economy has been driven largely by tourism. As we transition to modern internet communication services, we see new opportunities for jobs beyond that legacy tourist sector. Clean tech jobs, telecommuting workers from nearby Seattle, and further south, all the way to California.

Climate change will cause a reshuffling of where people want to and can afford to live. The Southwest will become increasingly parched, driving those who are looking for a more affordable, climate friendly place to settle. This will further challenge our housing market. The Comp Plan can inspire and incentivize ways to optimize our town centers to avoid traffic congestion, increase walking and biking, maintain and celebrate our natural beauty, reduce carbon footprint.

Our population, which is about 15 years older than the WA state average, will benefit from improvements in our communications infrastructure, setting the stage for rapid improvements in telemedicine, and deepening connection with metropolitan healthcare centers.

A low-carbon economy is an interconnected economy, where energy, water, transportation, housing, and environment work as a cohesive whole, building on the synergy that springs from efficient alignment of these Comp Plan elements. For example, looking over some of the Comp Plan material below from other municipalities, we see how:

- Climate changing sea-level rise shifts how a county thinks about shoreline development
- Seashores that will be lost to sea level rise become designated as parks, freed of roads, with walking and bike paths
- An increase in electric mass transit buses and vans reduce the need for parking in town centers
- The transition to electric vehicles leads to increased deployment of charging infrastructure
- Town plans favor easy access central parking for cleaner vehicles, with fossil fuel vehicle parking on the outskirts of town centers

- Affordable housing clusters embrace all forms of energy efficiency, including heat pumps, heat pump water heaters, and EV charger equipped parking, as well as EV Zip cars
- Self-healing micro-grid systems located near town centers help maintain critical community services in the presence of extended outages

For inspiration, vision and goals, the county need look no further than Washington state, who, along with California and New York, co-chair the U.S. Climate Alliance, a bipartisan coalition of states and unincorporated self-governing territories in the United States that are committed to upholding the objectives of the 2015 Paris Agreement on climate change within their borders, by achieving the U.S. goal of reducing greenhouse gas (carbon dioxide equivalent) economy-wide emissions 26–28% from 2005 levels by 2025 and meeting or exceeding the targets of the federal Clean Power Plan.

San Juan County can meet and even exceed those benchmarks, with our very clean energy, powering very clean heating and transportation, which consume over 90% of county energy and produce over 70% of county carbon footprint.

Collectively, the 14 members of the U.S. Climate Alliance represent more than 33% of the US population, over $7 Trillion of U.S. GDP, with about 1.3 million energy efficiency and renewable energy related jobs.

Alliance members strategic goals include growing clean energy economies and creating new jobs, while reducing air pollution, improving public health, and building more resilient communities.

All of those goals are pertinent to our county.

Washington state is also a member of the Pacific Coast Collaborative, With a combined population of 54 million and a GDP of $3 trillion, Alaska, British Columbia, California, Oregon and Washington are poised to emerge as a mega-region and global economic powerhouse driven by innovation, energy, geographic location and sustainable resource management, attracting new jobs and investment while enhancing an already unparalleled quality of life.

The Pacific Coast Collaborative is a formal basis for cooperative action, a forum for leadership and information sharing, and a common voice on issues facing Pacific North America. Recent actions are aimed at combating ocean acidification and changing ocean conditions as an immediate and critical threat to coastal economies and ecosystems.

Strategic imperatives include: **Managing regional growth** – An estimated 14.6 million new residents in the next twenty years will bring population pressures to Pacific North America, including urban sprawl and congestion. Smart land use choices, water policies and transportation planning will be needed to maintain the quality of life and distinctiveness of our communities. **Addressing impacts of climate change** – Shifting precipitation patterns, accelerated sea level rise and severe weather events will threaten property and infrastructure leading to higher economic and social costs from north to south.

Again, all of this is pertinent to our county.

Climate Change Impact on Food Production

Food production in much of the US (and the world), will be negatively impacted by climate trends - extreme weather, extended droughts, extreme rainfall, temperature extremes, ocean acidification. This translates into economic stress, reduced food production, all unfolding in the presence of population growth. This will likely drive climate refugee movement from areas of maximum climate stress to areas of lesser impact. As discussed in the population section below, the Northwest may be an area of lesser impact, attracting climate refugees from the southwest and beyond. This may put pressure on our ability to import sufficient food and on local food production capabilities, resulting in food price inflation and food shortages. Developing a more robust local food production capacity is important. Exploring ways to increase an abundance of land and sea food sources in our county is essential.

Comprehensive Goals and Strategies

Make San Juan County more resilient, diverse, balanced, stable, and self-sufficient community, preserving the Island's unique natural, rural character and creating a better future for islanders and the Islands themselves.

Manage county development in ways that are sustainable and within the carrying capacities of our natural resources and community.

Stimulate a vital, balanced, local economy that is more self-reliant and more diverse.

Produce as much of our essentials, such as food and energy, as we can, and convert our waste into useful products.

Address climate change by reducing use of fossil fuels, harnessing renewable energy sources, and adapting to anticipated impacts on the Vineyard.

Sustain our year-round community by addressing housing affordability and the high cost of living.

Direct development to town and village areas and limit building in environmentally sensitive areas.

Encourage compact, mixed-use, walkable town and village centers.

Prepare for climate change - Assess the vulnerability of the county to the diverse impacts related to climate change and plan accordingly to conserve human and natural resources.

Identify lands and infrastructure most at risk to sea level rise - A Climate Action Plan should be prepared that identifies lands at greatest risk from sea-level rise, based on considerations such as previous shoreline change, topography, and a likely range of sea-level change. It should identify areas likely to become underwater, wetlands, or subject to storm surges. This Plan should identify the measures that the County should use to adapt to and/or mitigate the impacts of climate change.

Limit construction in areas at greatest risk and adopt measures to limit impacts. Construction – or reconstruction after storm damage – of buildings or infrastructure should be prohibited in the most highly susceptible areas, including areas which would prevent wetlands from migrating inland so they can continue to play their essential ecological/ environmental roles. Buildings that are damaged in storm surges may contribute significant impacts as toxins, debris and septage enter ponds and bays, affecting water quality, shellfish, and public use of these resources. Building codes should be updated to ensure higher elevations and distance from shorelines as protection from storms and flooding.

Preserve lands that are susceptible to climate change impacts as open space. Acquire lands in areas identified as highly susceptible to flooding (but not soon to be lost to erosion) – especially if they are ecologically important or serve some other open space purpose. Federal pre-disaster mitigation funds may be used acquire land to undeveloped properties that cannot be mitigated.

Carry out pre-disaster mitigation to reduce impacts from climate change, storms and flooding. For example, more aggressive fire-wise strategies such as removal of fuels and their replacement with native vegetation would help deal with the anticipated increased summer fire hazard. Floodplain regulations should be updated to address storms and coastal flooding.

Transition to a more diverse and balanced year-round economy that enables those who grow up here to stay or return, helps year-round residents lead productive lives, and fortifies the seasonal aspects of the economy.

Strengthen and balance the economy, to support local ownership, reduce dependence on imports, increasing local reslience, and to increase year-round jobs with living wages.

Encourage and develop opportunities for low-impact, home-based businesses.

Recommended Language

Suggested Comp Plan Language (From Nora Nickum & Linda Lyshall)

Add something like the example from the Bainbridge Island plan: Minimize or ameliorate the impacts of climate change on our community and our Island's ecosystems through climate-informed policies, programs and development regulations.

Suggested Comp Plan Language (Islands Climate Resilience Steering Committee)

We'd like to see the following language included in the Vision Statement:

- Our community, economy, and ecosystems thrive and are resilient in the face of a changing climate and a range of other stressors.
- We work determinedly towards a carbon-neutral future.
- Our policies, programs, and development regulations are informed by the best available science.

Suggested Comp Plan Language (From Brian Silverstein - OPALCO board member, Lopez)

A DECLARATION OF VISION AND COMMITMENT TO THE FUTURE OF SAN JUAN COUNTY

Preamble

WE THE PEOPLE of San Juan County recognize that these rural islands are an extraordinary treasure of natural beauty and abundance, and that independence, privacy and personal freedom are values prized by islanders. Being a diverse people bound together by these shared values, we declare our commitment to work towards this vision of the San Juan Islands in **2036**.

Community

We envision a community that is primarily rural, made up of islands of varying character, each with its own unique qualities. The islands are places of peace and mutual tolerance, where citizens of differing backgrounds and beliefs respect each other's dignity, privacy, and freedoms. We communicate effectively and openly and work together toward goals identified as being for the common good. We foster a sense of neighborliness, self-sufficiency, **resilience** and community pride that has long been a part of our island character.

Basic Human Needs

Our islands are places where all citizens can safely walk or play, day or night. The drinking water supply is clean and adequate. Health care and help in time of need are accessible and affordable. The supply of affordable housing is adequate to meet the needs of our diverse population.

Education

Learning is a continuing lifelong process which is encouraged and aided by the community. A partnership of families and community creates a supportive and challenging environment founded on academic excellence and artistic expression. This educational environment produces ethical, self-directed, compassionate, responsible world citizens, alive with the love of learning.

Economy

We support a pattern of economic growth and development which serves the needs of our community, and which recognizes the rural, residential, quiet, agricultural, marine and isolated nature of the islands.

Our economy comprises a wide spectrum of stable, year-round activities that provide employment for islanders. We support and encourage traditional industries including forestry, farming, aquaculture, construction, fishing and tourism without jeopardizing the resources on which they depend. We have home occupations and cottage industries which are compatible with surrounding neighborhoods. We encourage new ideas and new technology for improving the quality and profitability of our goods and services. Value-added activities are encouraged. Environmental conservation and sustainable development are balanced.

Natural Environment

Our islands have exceptional natural beauty and healthy diverse ecosystems surrounded by pollution-free marine waters. The air is fresh and clean, the water quality is excellent, and the soil is uncontaminated. As careful stewards of these islands, we conserve resources, preserve open space, and take appropriate action to assure healthy land and marine environments.

Native plants and animals of the islands thrive, and are identified, appreciated and conserved. **Global Warming is dramatically impacting our vulnerable marine environment and we will ameliorate the impacts through policies and actions that are informed by best-available science.**

Land Use

Neighborhoods, hamlets, villages and towns are clearly defined so as to conserve agricultural, forest, mineral resource and environmentally sensitive lands. These areas provide for commerce and community activities without losing their small scale and attractive island ambiance. There is housing for people of all incomes. The unique character of our shorelines is protected by encouraging uses which maintain or enhance the quality of the shoreline environment. Through innovative land use strategies, our citizens and institutions balance and protect private property rights, public rights, and our natural environment.

Transportation and Communication

We have water, land, and air transportation systems commensurate with our island culture. On-island circulation is by means of a system of scenic rural roads with automobile, bicycle and pedestrian ways functioning without conflict. In some places, the roads are unpaved, narrow, and winding, and care is taken to maintain a rustic quality in public signs. Expansion or new construction of basic public transportation facilities occurs only on the basis of demonstrated ~~local~~ public need **and with an objective of reducing our carbon footprint**. **We will develop** advanced interactive communication systems **that are accessible to all**.

Energy and Resources

Our community fosters resource and energy **sustainability, independence and resilience with a focus on reducing our carbon footprint. Reducing, reusing and recycling** of solid waste; and sewage treatment; are managed within the **County to the greatest extent practical**. Renewable resources are **developed consistent with our values**. Nonrenewable resources are conserved **and replaced by renewable resources when** practical.

Arts, Culture, and Recreation

Our community nurtures the expression of its creative talents and supports diverse cultural and entertainment activities. Our cultural facilities such as libraries, museums, and theaters are focal points of activity and community support. Well managed parks, trails, and shoreline access, where appropriate, provide islanders with recreation with due regard for both the rights of private property owners and the natural limitations of each site.

Heritage and Historic Preservation

Our community is enriched by a strong sense of identity, tradition, legacy, and continuity, where past and present freely mingle. We recognize the contributions to our rural and maritime heritage made by indigenous peoples, explorers, and island pioneers, and encourage the preservation of that heritage. We encourage preservation of historic sites, structures, and traditions for the enjoyment of all.

Governance

We are self-governed by informed citizens. We are equally represented by elected officials who conduct the activities of government in an ethical, fair, impartial, responsive and open manner which recognizes the independent, self-reliant nature of its citizens. Our government institutions balance responsibility with resources and costs, consolidate services where practical, manage prudently, provide reliable data, are service-oriented, and perform in a timely manner.

Our Commitment

AS FORTUNATE CITIZENS OF THE SAN JUAN ISLANDS, WE COMMIT ourselves individually and communally to a future for ourselves and our children that reflects this vision. To this end, we, the undersigned individuals dedicate our time and our talents.

Population

Previous Comp Plan Material

See: http://www.sanjuanco.com/DocumentCenter/Home/View/1066

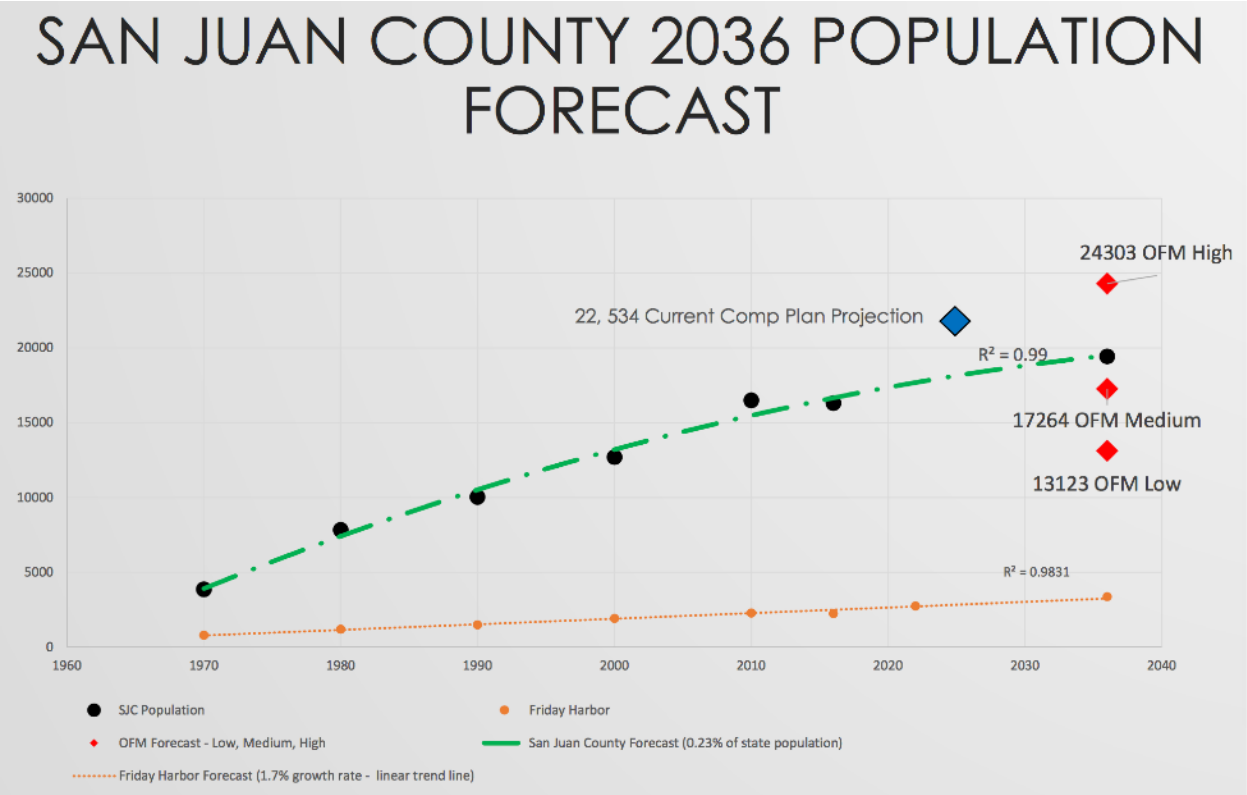
Also, see the current material below, which reviews previous forecast.

New Comp Plan Material

The county has prepared an updated population estimate. The full document can be found here: http://www.sanjuanco.com/DocumentCenter/Home/View/11845

For a presentation of that material, *2036 Population Projection Presentation to County Council - 04-17-2017*, see: http://www.sanjuanco.com/DocumentCenter/Home/View/12214

From the presentation, the chart below shows a projection from the Washington State Office of Financial Management (OFM). County staff recommends the adoption of 19,423 as the County population in 2036. The county median age is 54, compared to a WA state average of 37.



Natural growth is in decline, with deaths out numbering births. Balancing this decline is growth due to net migration. Net migration consists of Out-Migration (people leaving the county) and In-Migration (people moving to the county).

Out-Migration Drivers:

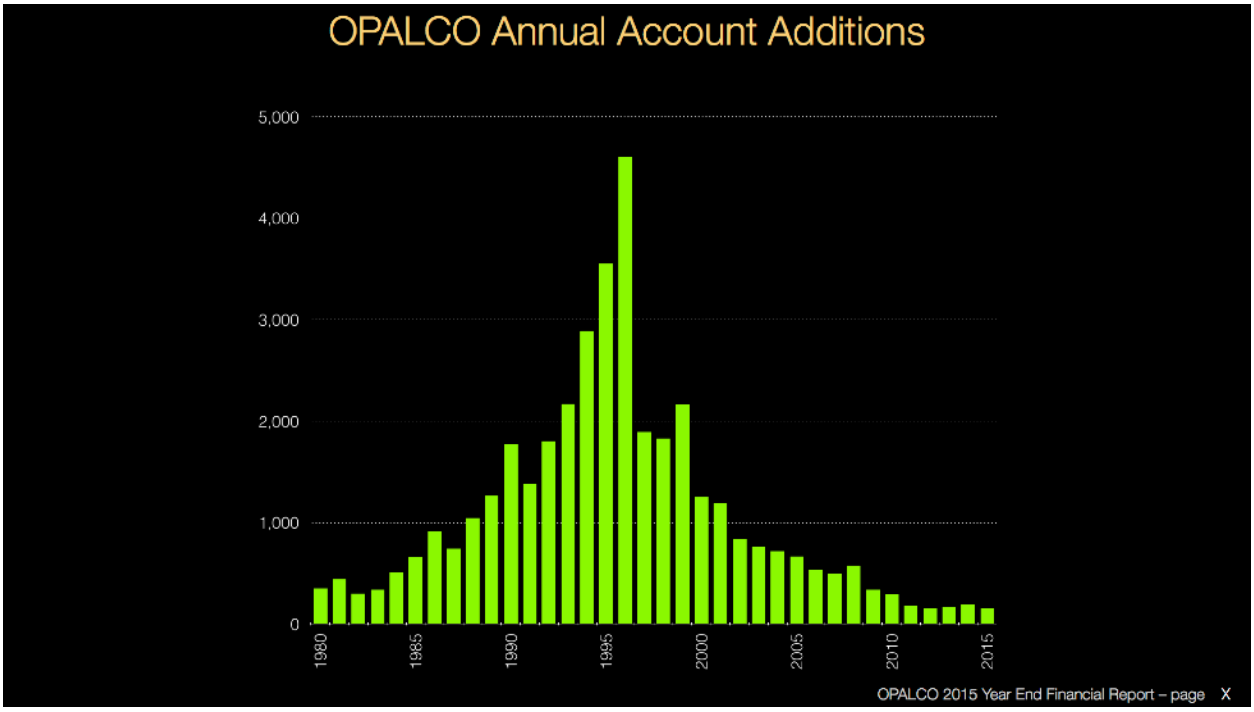
- Housing costs
- Limited employment options
- Social isolation/ family elsewhere
- Medical needs

In-Migration Drivers:

- Personal capital/investment options
- Retired or semi-retired/(self- employed)
- Rural amenities (privacy)
- Natural beauty
- Improving medical facilities

Background Narrative

As the the County population forecast noted, county growth has slowed. OPALCO has seen a similar deceleration of growth, compared to the rapid expansion of the 1990s. The chart below shows OPALCO account additions peaking in 1996, tapering down to less than 200 per year currently. Keep in mind that that rate is simply additions, and doesn't include closing of accounts. That said, it can be seen as a rough measure of past and present growth-related activity in the county.

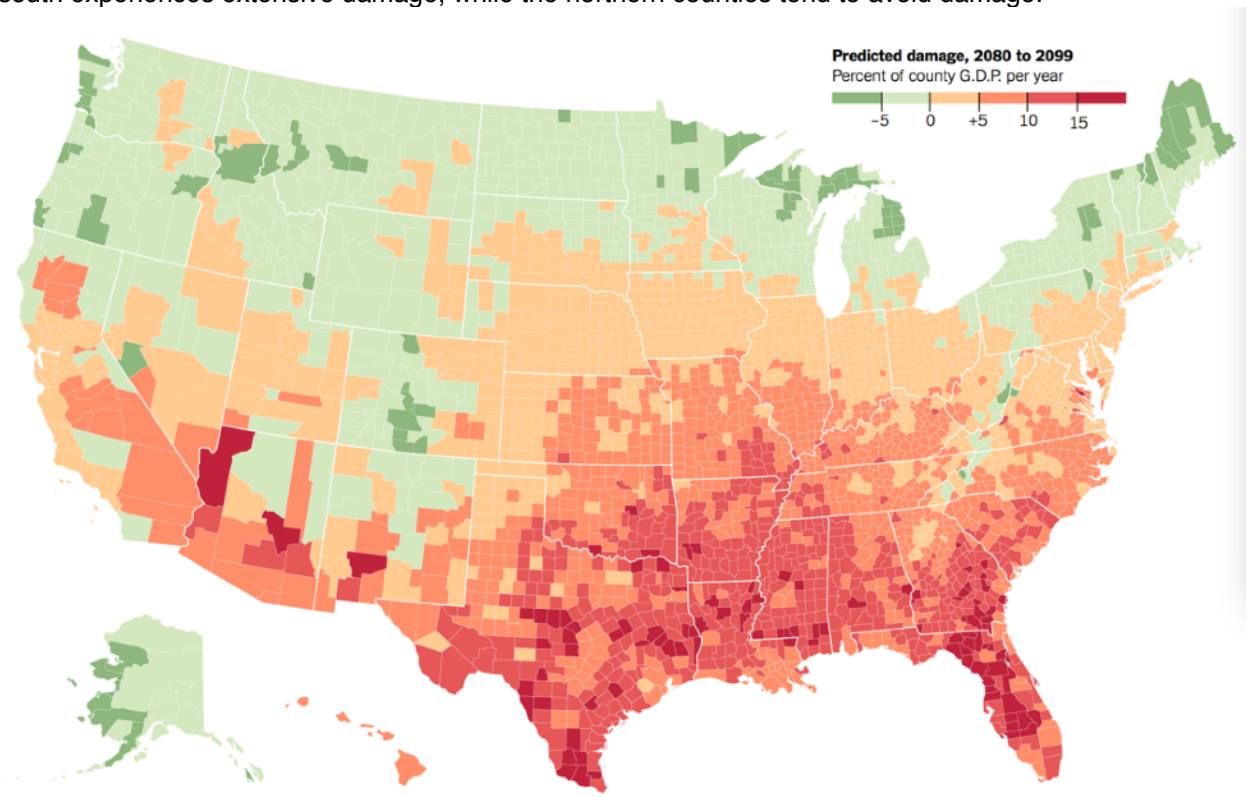


But what about the future?

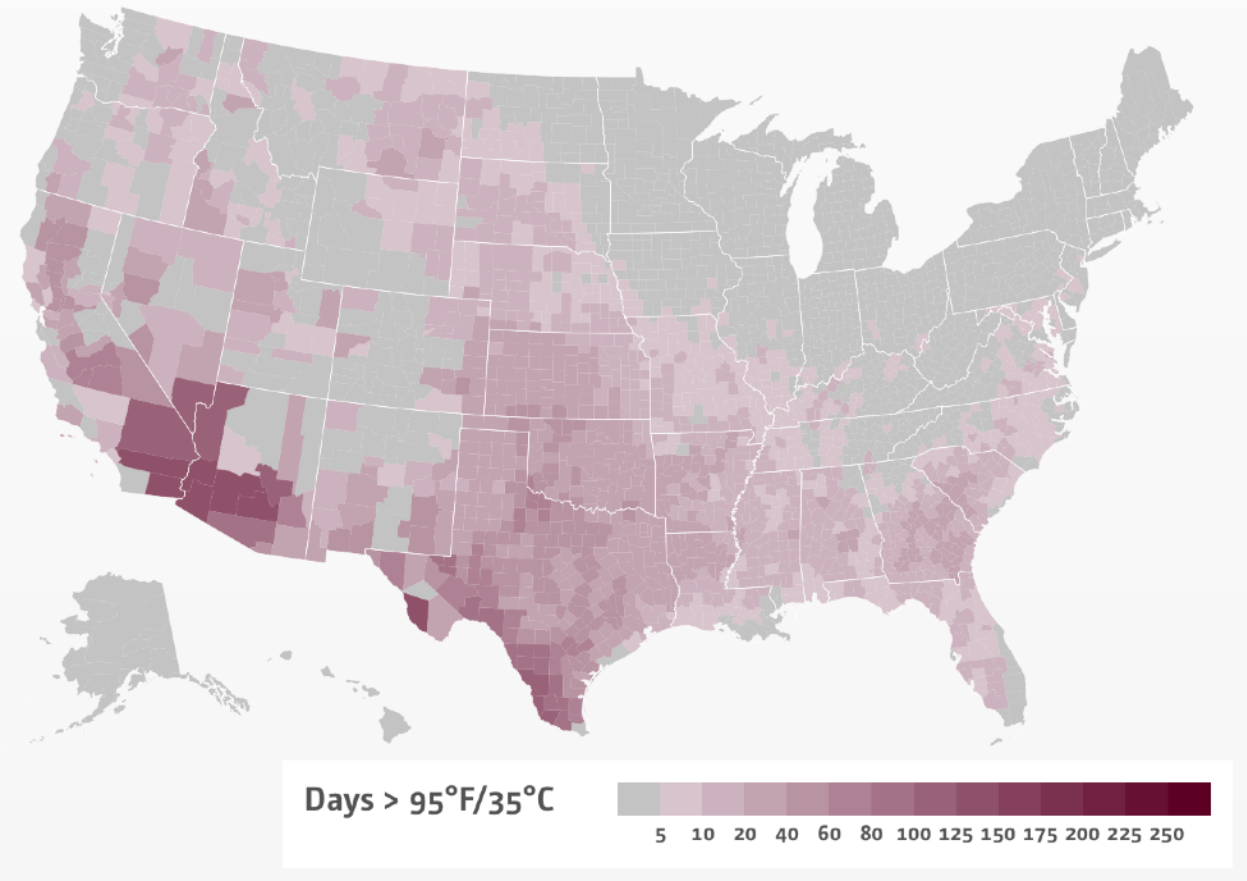
As the 2017 County Population Forecast shows, in-migration is, and will remain, the primary driver of population growth in the county. This growth will be driven largely by economic and social changes at state and national level. Climate change will likely be an important driver of in-migration, as hotter living conditions, extreme weather, drought conditions and other climate impacts deepen. The southern US will bear the brunt of negative impact, where water and agriculture production systems will be challenged, and persistent hot temperatures will make it difficult for many to live, especially the elderly. Southern populations will slowly migrate north.

Recent research ("Estimating Economic Damage from Climate Change in the United States" by Hsiang, Kopp, Jina, Rising, Delgado, Mohan, Rasmussen, Muir-Wood, Wilson, Oppenheimer, Larsen, Houser (Science, 2017)http://www.globalpolicy.science/econ-damage-climate-change-usa, http://www.impactlab.org/map/), estimates county-level impact of climate change across the US.

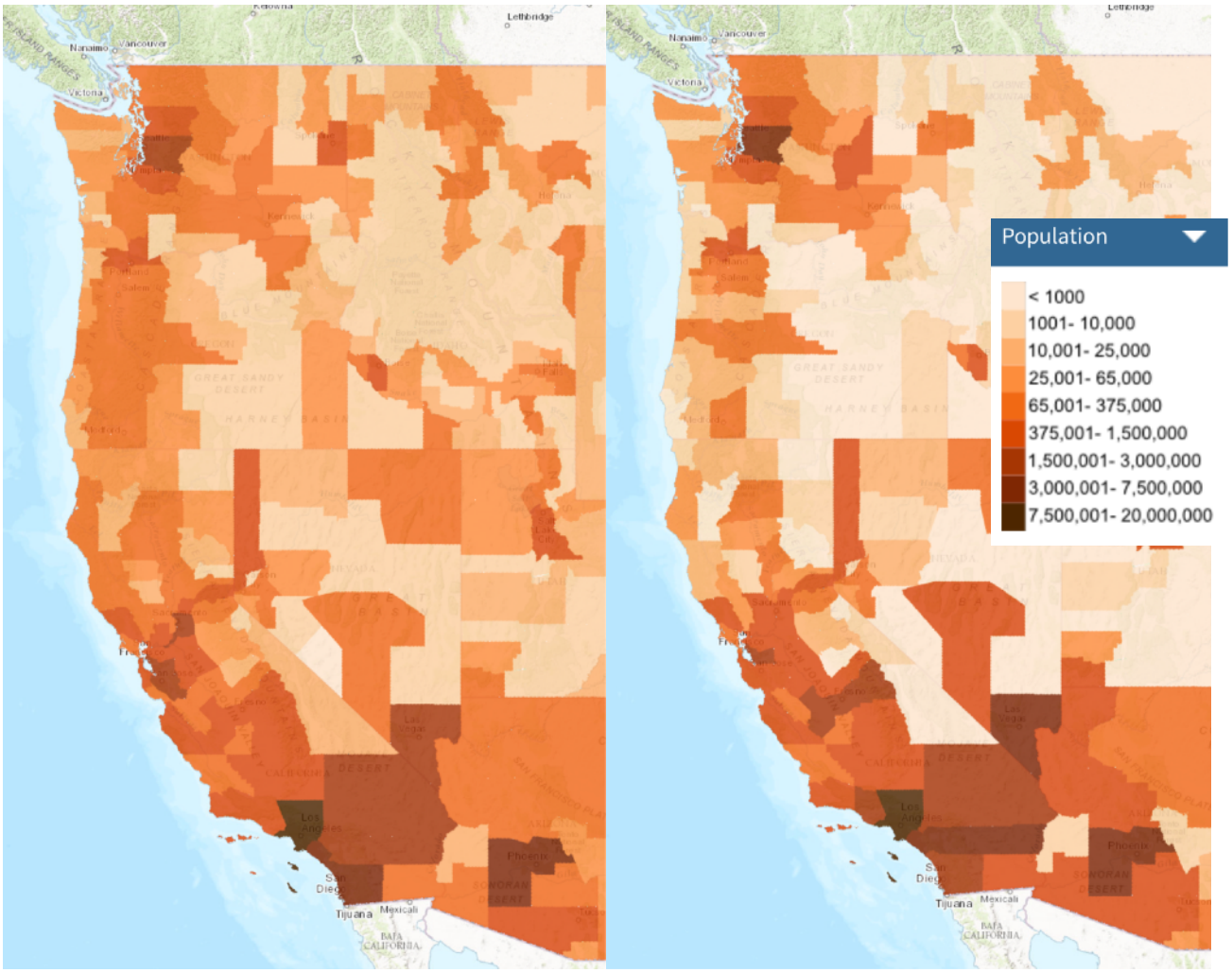
From that research, the first chart below shows county-level annual damages (percent of county GDP per year) in median scenario for climate during 2080-2099 under business-as-usual emissions trajectory (RCP8.5). Red indicates economic damage, green indicates economic benefits. As can be seen, the south experiences extensive damage, while the northern counties tend to avoid damage.



While these damages come from a variety of climate impacts, a few are worth highlighting. This next chart shows number of days greater than 95ºF in next 20 years (2020 through 2039), at county-level. As can be seen, the south and particularly the southwest will experience the largest impact.

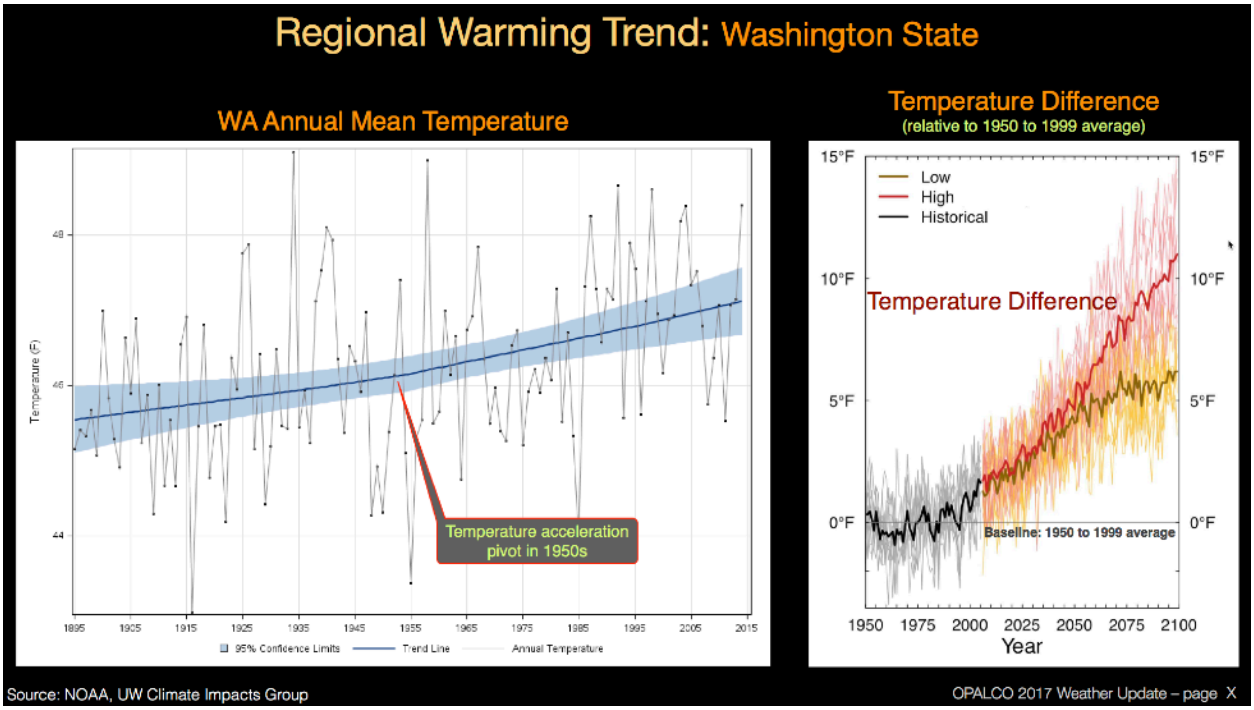


This degradation of economies and living conditions in the south will force a northward migration of people. The EPA's *Integrated Climate and Land Use Scenarios* look at county-level impact on population to understand how this shift might play out. The charts below compare the current population (left chart) with projected end of century population (right chart). In general, counties to the south of our region will decrease in population, while counties in the Northwest will increase.



The material above are simply projections. The important thing is to understand, that change is afoot and uncertainty about the impact of that change is high. With regard to the Comp Plan, we can hope for the best but plan for the worst.

Though climate change impact may be comparatively less in Washington state, we are not immune. The chart below shows the historic change in WA temperature, and temperature forecast through 2100 (source: UW Climate Impacts Group).



The county has an older population compared to the rest of the state. This increase in temperature will have a disproportionate impact on the elderly.

Though this section is focused on population, climate impact will have implications for every section in the Comp Plan. See those sections for further background narrative.

Recommended Language

Recommended Comp Plan Language

No additional material.

Land Use

Previous Comp Plan Material

See: http://www.sanjuanco.com/DocumentCenter/Home/View/1053 and http://www.sanjuanco.com/DocumentCenter/Home/View/1054

Also, for land use inventory, see: See: http://www.sanjuanco.com/DocumentCenter/Home/View/1066

Vision:

> *"Neighborhoods, hamlets, villages and towns are clearly defined so as to conserve agricultural, forest, mineral resource and environmentally sensitive lands. These areas provide for commerce and community activities without losing their small scale and attractive island ambiance. . . . Through innovative land use strategies, our citizens and institutions balance and protect private property rights, public rights, and our natural environment."*

From Shoreline Master Program:

> *"Our islands have exceptional natural beauty and healthy diverse ecosystems surrounded by pollution-free marine waters. . . . As careful stewards of these islands, we conserve resources, preserve open space, and take appropriate action to assure healthy land and marine environments. . . . The unique character of our shorelines is protected by encouraging uses which maintain or enhance the quality of the shoreline environment."*

New Comp Plan Material

Background Narrative

Comp Plan Ag Element Recommendations

Submitted by Sandy Bishop and Rhea Miller, Lopez Island
September 13, 2017

Rationale: Most of the US population lives 2 weeks away from starvation. If a natural, health, or economic event strikes, and food deliveries are stopped or delayed, stores would be cleaned out within days. For mainlanders, the easiest solution is for them to get in their vehicles and drive to a different location, such as is done in hurricane and earthquake events. Islanders have less options and must be more able to be self reliant. Local self reliance requires a strong and sustainable agricultural environment and the ability to process and preserve locally produced products. Therefore, in order to maintain the ability and availability of food products in a time of need, small-scale
agriculture in the San Juan's needs to be healthy and long lived. In order to maintain the economic health of farmers, farmers need to have flexibility to create and distribute their goods on island, including small commercial kitchens, farm stores and farmstands.

The primary economic factors blocking successful long term Small-scale agriculture are:
• Expensive land
• Limited help
• Limited local market period and access
• Aging of the current farmer population that holds the land
• Inability to recruit and maintain a younger skilled farmer population
• Large-scale farming underpricing small-scale farms
• Inability to apply value added processing towards their products in order to extend their marketability

- Inability to access a larger market either due to their farm location or financial resources
- Market access for small-scale farming typically does not include commercial institutions such as grocery stores and restaurants because those institutions are more focused on profit and are less able to deal with varying quantities and availabilities. (e.g. Users of Sysco & Food Services of America deliveries)
- Not every farmer has the means to create and operate a commercially certified processing kitchen that would enable them to extend the life and marketability of their produce.
- Not every farmer has access to a farm stand on an appropriate roadway

Environmentally sustainable farming practices that do not contribute to global climate change are small-scale farming operations that produce abundant food without depleting the earth's resources or polluting its environment. Small-scale sustainable agriculture follows the principles of nature to develop systems for raising crops and livestock that are, like nature, self-sustaining. Sustainable agriculture is also the agriculture of our cultural landscape, one whose success is indistinguishable from vibrant rural communities, rich lives for families on the farms, and wholesome food for everyone. (https://sift.ncat.org/small_scale.php**) Further documentation of these issues include:**

"Don't Let Your Children Grow Up to Be Farmers" The New York times Aug 9, 2014
The dirty secret of the food movement is that the much-celebrated small-scale farmer isn't making a living. After the tools are put away, we head out to second and third jobs to keep our farms afloat. Ninety-one percent of all farm households rely on multiple sources of income. Health care, paying for our kids' college, preparing for retirement? Not happening. With the overwhelming majority of American farmers operating at a loss — the median farm income was negative $1,453 in 2012 — farmers can barely keep the chickens fed and the lights on. https://www.nytimes.com/2014/08/10/opinion/sunday/dont-let-your-children-grow-up-to-befarmers.html?mcubz=0

"Small vs. large: Which size farm is better for the planet?" The Washington Post Sept 2, 2014
https://www.washingtonpost.com/lifestyle/food/small-vs-large-which-size-farm-is-better-for-theplanet/2014/08/29/ac2a3dc8-2e2d-11e4-994d-202962a9150c_story.html?
utm_term=.bf6deeaae614
Daniel

Examples of how to have successful small-scale farming operations in the region, including other islands:
Successful (producing for 10 years or more) Small-scale farms share these common aspects of increasing their farm revenue:
- Multiple seasonal products that mature at various times throughout the year. (Suyematsu Farms. Bainbridge Island, April -> December)
- Ability to post-process the produce into longer lived higher valued products. (Jams, Salsa, Fermented products, Sauces, Yogurt, Cheese, Soup stock, etc)
- Opportunities for others to perform a post-process action on the local produce. (bakers, wineries, flavored ice-cream, etc.)
- Access to seasonal labor such as farm interns.
- Access and ability to maintain and share high value equipment and physical facilities. (Suyematsu, Bentryn, Paulson, Laughing Crow, and Butler Green farms. Bainbridge Island)
- More than 5 acres in cultivation.
- Ability to host "Farm experience" events (Heyday, Persephone, Educulture at Suyematsu Farms, Bainbridge Vineyards)
- Ability to provide communal farm intern housing. (Heyday, Persephone, Farmhouse Organics, and Bainbridge Island FoF intern housing)

Therefore we recommend:

- Sustainable small-scale farming be promoted and supported in San Juan County.
- Resource lands shall be incentivized to increase the practice of farming methodologies that sequester carbon and build healthy soils.
- To further such goals, we recommend the UDC allow:
- Farmers may share farm stands on major roadways
- Farmers may share a commercial kitchen on a farm
- Farmers may share a farm store of local produce and value-added products at a location adjacent to major roadways in rural lands. Store must be owned by the property owner or a local farm cooperative.
- Additional sales of incidentals for enjoying the agricultural products (such as corkscrews, utensils, condiments— as butter, juices) to be sold in the farm store. Incidentals must not comprise more than 1/3 of store sales.
- Farm Stores to display exterior to the store.
- Housing for succession farmers, with the ability for the retiring farmers to live out a life estate on the farm and yet allow housing for the farmer succeeding those retiring on the same farm.

Recommended Language

This material is developed by our workgroup.

Suggested Comp Plan Language (Nora Nickum & Linda Lyshall, Islands Climate Resilience Steering Committee)

General policies:

New policy: Increase resilience by avoiding development in sites that are projected to be at risk from climate change impacts like sea level rise, coastal flooding, and inadequate water supplies.

2.2.F Natural Resource Conservation (or could go under Fish, Wildlife, and Native Habitat in the Water chapter)

New policy: Increase protections of rocks and islets that will remain above projected sea level rise for shore bird nesting, roosting, and rearing.

2.2.C Energy

Edits to previous policy: Provide opportunities within land use designations for the development and use of alternative energy resources which are compatible with the natural environment and will contribute to a reduction in greenhouse gas emissions.

Recreation (or might go under **Capital Facilities**)

New policy: Plan for impacts of sea level rise—and accompanying erosion—when undertaking new construction or conducting repairs and maintenance of roads, docks, trails, and campsites near the shoreline.

Suggested Comp Plan Language (from OPALCO)

Notes

All edits appear in red. Original Comp Plan language in black.

2.1 INTRODUCTION

2.1.A Purpose

San Juan County is faced with a number of critical land use issues, perhaps the most critical being protection of the primarily rural character and natural environment of the islands while allowing for growth and development that maintains these characteristics and a healthy, diverse economy and populace. The Land Use Element of the Comprehensive Plan, guided by the county-wide Vision Statement, establishes the desired character, quality, and pattern of development for the physical environment of the county. It represents the policy plan for growth over the next twenty years. The goals and policies in this element direct future decisions on land use regulations, actions, procedures, and programs that will further implement the intent and purpose of the overall Plan.

2.1.B Land Use Concept

The Land Use Element establishes a concept of how San Juan County should grow and develop while protecting its exceptional quality of life and natural environment and equitably sharing the public and private costs and benefits of growth. The concept establishes the overall direction for guiding residential, commercial, and industrial growth in a manner that protects public health and safety and private property rights while preserving rural character and our unique island atmosphere.

The land use concept guides San Juan County's efforts to achieve these ends by indicating where housing, shopping, community services, cultural facilities, and economic development activities should be encouraged, and where open space, rural areas, farmlands, and forested areas should be protected. It distinguishes between growth areas for urban levels of development, activity centers and other areas of more intensive rural development, rural areas, and resource lands, and places the emphasis for growth in areas where adequate public facilities and services can be provided in an efficient and economic manner.

Finally, the land use concept attempts to preserve open space, protect Critical Areas, maintain and improve the quality of air, water, soil and land resources, and protect the historic and cultural character of the islands. The land use concept is based on the densities established under the 1979 Comprehensive Plan as revised in the year 2000, and focuses on the distribution and mix of land uses.

The Land Use Element consists of five major sections:

• The General Goals, which provide the overall goals and policies for all lands in the county.

• The Land Use Designations, which establish four principal land use classes with specific goals and policies for a number of designations within these classes:

-Growth Areas, including Towns and Urban Growth Areas.

-Activity Centers including Villages, Hamlets, Island Centers, and Residential Activity Centers, which are designated consistent with RCW 36.70A.070(5)(d) as Limited Areas of More Intensive Rural Development (LAMIRDs). Activity Centers also include Master Planned Resorts, which are designated consistent with RCW 36.70A.360 and .362.

-Rural Lands including Rural General Use, Rural Farm-Forest, Rural Residential, Rural Industrial, Rural Commercial, Conservancy, and Natural.

-Resource Lands including Agricultural and Forest lands.

• The Special Districts of Conservancy and Natural which include goals and policies for conservation of areas with valuable natural features.

• The Overlay Districts, which contain additional goals and policies for certain land areas and uses that warrant specific recognition and management, including Mineral Resource Lands, Critical Areas, Open Space Conservation, watershed management, and Airport Districts.

- The subarea plan section, which contains goals and policies for the creation of plans and regulations for specific geographic areas in the county when the needs of those areas cannot be addressed by the land use provisions of this element.

2.1.C Population and Residential Density

Residential density is established on the County's Official Maps for each area of the County. The permitted density indicates the maximum number of dwelling units that may be constructed per acre of land, or conversely in rural areas, the minimum number of acres per dwelling unit. The maps of residential density do not establish a minimum parcel size; however, new land divisions may not establish a parcel pattern which would permit development of the area at a residential density greater than that provided for in the Official Maps, or create parcels smaller than those allowed by the UDC.

The patterns of development which have occurred in San Juan County have been greatly influenced by the residential densities established in the 1979 Comprehensive Plan. In many instances the densities have been voluntarily reduced by property owners through conservation easements with the San Juan Preservation Trust (a private, non-profit land trust). Also, density reduction is being achieved through purchase of conservation easements and land acquisition by the San Juan County Land Bank.

Some of the residential densities that were established in the 1979 Comprehensive Plan exceeded the density that is considered consistent with rural character by the Growth Management Hearings Boards established under Washington's Growth Management Act. In response to an order from the Western Washington Growth Management Hearings Board, this Plan establishes rural densities that allow fewer dwelling units than permitted by the 1979 plan in a number of areas. Existing parcels which were established under the greater densities of the 1979 plan may still be developed for residential use, but any further subdivision in these areas must meet the newly established density limits. Plan policies encourage the combination of existing lots in order to reduce the number of dwelling units that may be developed in rural areas where the existing parcel pattern would permit development at a density greater than that established by this Plan and the Official Maps.

Information on existing and future population are found in Appendix 1, Population Projections, Buildout Analysis and Land Use Inventory.

2.1.D Growth Management and Resource Protection

To ensure that Critical Areas and rural resources are protected, and that urban governmental services will not be required outside of urban growth areas and LAMIRDs, in addition to the density changes there are also Comprehensive Plan policies that place limits on capital facility development in the rural areas, and establish UDC conservation subdivision standards and other site design and performance standards.

2.2 GENERAL GOAL AND POLICIES OF THE LAND USE ELEMENT

This section of the Land Use Element establishes the overall goal and policies for how the county will try to achieve the Vision and identifies a number of general goals and policies for a broad range of issues which may apply to all land classes in the County.

2.2.A General Goal and Policies

General Goal:

To provide for the orderly use of San Juan County land, shorelines and water areas and to protect and maintain the natural beauty and resources of the islands, maintain the present rural, residential, agricultural atmosphere, respect the natural environment and processes, recognize the marine orientation of the County, and to regulate development in a manner which will protect both the rights of private landowners and the interests of the public.

General Policies:

1. Balance the public's interest in the management of community growth and its associated impacts, with the protection of individual property rights through adoption of a coordinated set of goals, policies and regulations to guide future development in the County.

2. Recognize and support the right of property owners to maintain and replace legal, non-conforming uses and structures.

3. Consider site capabilities and existing development patterns when determining the appropriate locations and intensities of various uses of the land.

4. Direct high density residential and mixed use development into growth areas, and into appropriate activity centers to prevent sprawl and relieve growth pressure in the surrounding rural areas.

5. Implement the goals and policies of this Plan by adopting a land-use designation map and a set of development regulations and enforcement procedures.

6. Investigate the development of a program to allow for the transfer of residential density from Rural and Resource Lands to Activity Centers and other approved receiving areas as appropriate to protect rural and resource lands. Transfer of residential density within Activity Centers should also be allowed.

7. Implement the Vision Statement goals of preserving rural character and limited natural resources by means of voluntary, incentive-based programs, and other strategies, to reduce the currently allowable maximum number of residential structures in rural areas in a manner that is fair and equitable for the affected property owners, and by establishing strategies that encourage property owners to keep parcels whole and to preserve open space.

8. Residential densities specified on the Official Maps indicate the maximum allowable density for any given parcel.

9. Recognize that the maximum allowable density applied to land by designation on the Official Maps reflects the general intent of this Plan for residential development and should be allowed unless maximum density would exceed site capabilities or unless it would not comply with other applicable County land use regulations. For purposes of this Plan, site capabilities or conditions which may indicate a density lower than the specified maximum include, but are not limited to:

a. Suitability of soils to sustain individual or community sewage disposal systems.

b. Quality and quantity of water available to serve the proposed development.

c. The presence Geologically Hazardous Areas, Frequently Flooded Areas, Wetlands, or Fish and Wildlife Habitat Conservation Areas which would either be materially harmed or which would result in hazards to life and property as a result of development at maximum density.

10. Preserve the rural character of rural, resource, and conservancy lands by providing for conservation design in new land divisions and allowing for limited residential density bonuses in return for additional protection of open space resources and natural resource functions.

11. Manage runoff to prevent flooding and property damage, promote groundwater recharge and protect the quality and quantity of ground and surface water in accordance with the Water Element of this Plan. In conformance with RCW 36.70A.070(1), a description of existing flooding, drainage, and water quality problems will be developed and included as an appendix to this Plan.

12. Vacation rental (short-term, i.e., of less than thirty days) of a principal, single-family residential unit or an ADU should be subject to standards similar to those for hospitality commercial establishments but should be classified as a residential use for purposes of land use regulation.

13. Future review and revision of the Land Use Element, its land-use designations, and the Official Maps should be based in part on the sufficiency of capital facilities as provided in the Capital Facilities Element and six-year plan, review of development patterns, projected needs, the availability and adequacy of water resources, the ability to control and mitigate the impacts of development, and the retention and protection of resource lands, special districts, critical areas, and water quality.

2.2.B Economy

Goal:

To support a broad-based, diversified, stable, year-round economy which provides a range of goods, services and employment opportunities serving the needs of County residents, while safeguarding the rural, residential, agricultural, and marine nature of the County.

Policies:

1. Provide a predictable development atmosphere for the local economy through the formulation of clearly defined land use designations, regulations and standards.

2. Allow the establishment of home occupations and cottage enterprises with appropriate performance standards.

3. Retain resource-based activities by:

a. Conserving agricultural, forest, and mineral resource lands;

b. Encouraging forest land owners to use best management practices and sustainable harvesting techniques;

c. Allowing resource-based processing and commercial activities to locate on resource lands and in some rural areas; and

d. Allowing the storage of personal commercial fishing vessels and related equipment incidental to a personal residential use throughout the county.

4. Ensure that new commercial, industrial, and institutional uses are consistent and compatible with the islands' natural environment, community livability, and the needs of county residents by establishing performance standards which address:

a. compatibility with surrounding area;

b. visual impact, including signage, light and glare;

c. storm drainage control;

d. traffic access and circulation;

e. outdoor storage and location of parking and loading;

f. noise abatement;

g. water and air pollution, including hazardous wastes, odor, and noxious fumes; and

h. Critical Areas.

5. Allow for tourism-related businesses and activities within the context of maintaining a diverse and balanced economy while minimizing the related negative impacts.

6. Commercial and industrial uses should be located only where directly accessible from a County Road, or from a private road if traffic and maintenance impacts to the private road are minimized.

2.2.C Energy

Goal:

To conserve energy, promote energy efficiency and local renewable energy production.

Policies:

1. Promote education on site planning methods that make maximum use of energy-saving features of the natural environment.

2. Provide opportunities within land use designations for the development and use of alternative energy resources which are compatible with the natural environment.

2.2.D Essential Public Facilities

Recognizing the diverse essential public facility needs of San Juan County’s many islands, following are the policies for addressing the siting and development of essential public facilities, including essential public facilities located within the Shoreline jurisdiction.

Goal: To ensure that the land use needs for essential public facilities are identified and provided for as a necessary component of a coordinated land use system.

Policies:

1. Identification of Essential Public Facilities

Essential public facilities (EPFs) are facilities that provide a necessary public service as their primary mission, and that are difficult to site. EPFs include, but are not limited to, those facilities listed in RCW 36.70A.200; any facility that appears on the list maintained by the State Office of Financial Management under RCW 36.70A.200(4); secure community transition facilities as defined in RCW 71.09.020; state education facilities; state or regional transportation facilities as defined in RCW 47.06.140 and facilities determined to be an Essential Public Facility under SJCC 18.30.050E. Essential public capital facilities of county or state-wide significance also include, but are not limited to: passenger and vehicle ferry terminals (public); public elementary and secondary schools; solid waste collection, transfer, and disposal facilities; county roads and county docks; county equipment storage and maintenance yards; county septage handling and treatment facilities; primary electrical transmission and distribution systems; electric utility facilities generating or storing electric energy; utility communications facilities whether for emergency service, or available for public use, or in support of an electric power utility; fire stations and emergency service facilities; public libraries; post offices; parks; county administrative offices; and general aviation airports.

2. Regulations and policies may not preclude the siting and construction of EPFs. When possible, EPFs shall comply with existing regulations and policies. When this is not possible, or when existing, non-conforming facilities need to be expanded, special siting, design and approval procedures should be developed that:

a. Consider impacts on existing land uses, resource lands, open space, scenic resources, shoreline master program, Critical Areas, and the natural and rural environment;

b. Consider the quality of service provided and the economic, social and environmental costs and benefits to the public;

c. Include the public in selecting sites and developing alternatives to mitigate negative impacts;

d. Require EPFs to provide reasonable mitigation of negative impacts. An application for

approval of an EPF Conditional Use Permit may however, not be denied because impacts are not fully mitigated; and

e. Prevent the siting of incompatible uses adjacent to general aviation airports.

3. Essential public facilities should not be located within frequently flooded or geologically hazardous areas unless no practicable alternative exists.

4. On Lopez and Orcas Islands, new public schools and government administrative offices should be located within an Urban Growth Area (UGA), a LAMIRD, or other area where adequate water supply and sewage disposal exist without new extensions of urban services.

5. Other facilities should not be located outside an UGA or LAMIRD unless its operation warrants a rural location.

6. The Shoreline Master Program Element should establish shoreline environment designation, policies, boundaries, and provisions regarding the identification, siting and design of essential public facilities located in the shoreline jurisdiction.

7. To help offset potential impacts from essential public facilities, develop voluntary and incentive based programs to protect the overall functions and values of Critical Areas and to support resource land uses, particularly commercial agricultural uses.

2.2.E Recreation

Goal:

To provide for recreational opportunities to meet the needs and interests of County residents while ensuring that recreational uses are compatible with the natural limitations of each specific site and surrounding uses.

Policies:

1. Coordinate with other public and private agencies to ensure that plans and programs provided within the County accommodate the recreational needs and interests of County residents.

2. Allow the use of public lands consistent with the physical and cultural limitations of each specific site and the island on which it is located.

3. Allow commercial recreational developments, consistent with the above goal, which will serve to complement public recreational facilities.

4. Prohibit recreational vehicle parks and all-terrain vehicle tracks because these uses place excessive demands on public transportation systems.

5. Prohibit the development or use of land for large-scale, permanent, tourist attractions such as theme parks and casinos, as they are out of scale and character with San Juan County. Allowable tourist attractions should be limited to those that do not require significant land area, and such attractions should meet all concurrency requirements.

6. Establish performance standards for public and private recreational developments to minimize adverse impacts on adjacent properties and the natural environment.

2.2.F Natural Resource Conservation

Goal:

To preserve nonrenewable natural resources and conserve renewable natural resources for the benefit of existing and future generations.

Policies:

1. Conserve soils capable of supporting long-term agricultural production. The federal Natural Resources Conservation Service (NRCS) identified 34 soil types suitable for farming in San Juan County. These soils can be found on page 121 of the 2009 Soil Survey of San Juan County, Washington, available at: http://soils.usda.gov/survey/online_surveys/washington/#san2009.

2. Conserve forest lands in forest grades 1-5 (as classified by the Washington Department of Natural Resources) for long-term timber production.

3. Encourage sustainable forest management in order to conserve forest lands and promote the retention and preservation of forest stands that are particularly important to visual aesthetics, wildlife habitat, groundwater retention and/or site stability.

4. Protect and preserve, wetlands, critical marine and terrestrial wildlife habitats and wildlife corridors, including breeding grounds, resting and feeding areas for migratory birds, nursery areas and habitats of threatened, endangered and sensitive species.

5. Encourage the reclamation, rehabilitation and enhancements of: (a) wetlands, (b) marine and terrestrial wildlife habitat, and (c) vegetated areas necessary to maintain site stability and groundwater recharge.

6. Develop voluntary, incentive-based, protection measures for natural resources including conservation easements, transfer and purchase of development rights programs, current use taxation, and public education programs.

7. Protect the health, safety and welfare of the public by ensuring that areas susceptible to geological and hydrological hazards are not developed in a manner which would result in injury, loss of life, property damage or financial losses due to flooding, erosion, landslide, or steep slope failures.

8. Incorporate low impact development standards and guidelines (based on the Technical Guidance Manual for Puget Sound, Puget Sound Action Team, 2005) into implementing regulations for critical areas, rural and resource lands, special districts, activity centers and growth areas.

2.2.G Social Services

Goal:

To augment County health and social service capabilities by allowing provision of affordable residential care.

Policy:

1. Allow establishment of adult family homes for the elderly and special needs residents and home day care facilities for children in all designations which allow residential uses in accordance with state and federal laws.

2.2.H Historic and Archaeological Preservation

Goal:

To protect, preserve, and restore significant archaeological and historical resources in the county and encourage those types of new development that will enhance historic community identity.

Policies:

1. Protect areas of known archaeologic and historic value from incompatible development and ensure that newly discovered areas uncovered during excavation are examined by the appropriate authorities.

2. Protect through voluntary measures the significant historic resources identified in an inventory, using a variety of preservation techniques including acquisition, incentives, conservation easements, transfer of development rights, overlay districts, and alternative re-use of structures.

3. Incorporate the preservation of sites and structures of historic and archaeological significance as a part of the environmental consideration in development permit and land division reviews.

2.2.I Open Space and Scenic Resources

Goal:

To protect and conserve open space and scenic resources.

Policy:

1. Protect open space and scenic resources identified in the County Open Space and Conservation Plan through implementation of a variety of conservation techniques including fee acquisition, conservation easements, incentives, overlay districts, purchase, retirement, or transfer of development rights, and education programs.

2.2.J Access to Public Lands and Facilities

Goal:

To provide safe and convenient access to public lands and facilities without causing significant negative impacts on the quality of life or property of island residents, or adversely affecting fragile natural features.

Policies:

1. Public agencies should acquire or otherwise assure access to publicly owned lands and facilities. Such access should not adversely affect the public resource or adjacent properties.

2. Public access areas should be clearly and appropriately marked.

3. Greenways or buffer zones should be provided within public access areas to protect adjacent private property.

2.2.K Sewage Disposal

Goal:

To ensure that growth and development is supported by site conditions suitable for sewage disposal systems, or by sewage treatment facilities in urban growth areas and certain activity centers and residential activity centers, in order to protect water quality and the public health, safety, and welfare.

Policies:

1. Allow development only upon County approval of sewage disposal systems or upon connection to an approved community sewage treatment facility.

2. Allow innovative, functional technologies for the efficient processing of sewage. These alternative methods of sewage disposal may be allowed with approval from the County Public Health Officer.

3. Locate sewage disposal facilities to prevent contamination of surface and ground water resources.

4. Coordinate with the Town of Friday Harbor in the development of programs for local sewage sludge disposal which will have minimal negative impact on the public.

5. Prohibit the importation and disposal of sewage sludge to the islands from outside of the County.

6. Allow the extension of community sewage treatment facilities into rural areas only to remedy existing or potential groundwater contamination problems, or to correct existing or impending health hazards, or to provide service to public schools, and only when it meets the other criteria provided in this Plan, Sections B.7.1.C and B.7.2.A.

2.2.L Communications

Goal:

To allow for the development of effective communications systems in a manner consistent with the character of island neighborhoods and the rural and scenic qualities of the islands.

Policies:

1. Allow for communications towers and antennae subject to location, siting, appearance, and performance standards.

2. Existing commercial communications antennae and towers should be used to the maximum extent possible to accommodate future communications needs before new facilities are approved.

2.2.M Physical Activity

Goal:

To implement community planning and design approaches that promote walking, bicycling and other physical activity.

Detailed policies supporting physical activity are found in the Transportation Element of this plan (which includes a Non-motorized Transportation Plan) and the goals and policies of adopted subarea and activity center plans.

2.3 LAND USE DESIGNATIONS

This section of the Land Use Element establishes four principal land use classes: Growth Areas, Activity Centers (including LAMIRDs), Rural Lands, and Resource Lands. Each Class has specific goals and policies that specify the criteria used to qualify lands for each designation and provide guidance for development regulations by identifying uses and activities which may be established in these areas. Generally, the factors for land use designations in this Plan include the following: physical site conditions such as soils, slope, groundwater recharge and drainage; present and projected needs of the population; the character of existing development and parcel size; financial impacts on the County and its residents;

community livability; capacities of roads, sewers, water systems, and other facilities; proximity to shopping, business and community activities; and providing a balance between various land uses.

2.3.A Growth Areas

Goal:

To recognize and provide for areas of compact urban development which offer diverse employment opportunities, a variety of residential densities and housing types which will eventually achieve urban-level densities in most locations, general commercial, general industrial, institutional, recreational, and community uses in a concentrated, development pattern that includes urban-level and uses and intensities of use.

Policies:

1. Establish different urban growth areas, each of which has a mix of land uses with housing, businesses, and services appropriate to its character, size, and location, as described in a. and b., below.

Types of Growth Areas

a. Towns are incorporated Urban Growth Areas with a full range of urban facilities and services, including high-density residential, general commercial, and general industrial uses, schools, and neighborhood and community parks. Towns offer a variety of housing types and are pedestrian- oriented with compact development patterns. They have municipal sewage treatment facilities, municipal water systems and provide other urban governmental services. Towns are incorporated.

b. Unincorporated Urban Growth Areas (UGAs) are: 1) adjacent to incorporated towns, are or can be served by municipal water systems and municipal sewage treatment facilities, and contain or are appropriate for a mixture of uses including general commercial and general industrial and high density residential. All or a portion of these areas may be annexed into a town within the twenty year planning time frame; or 2) are non-municipal urban growth areas i.e, they provide community sewage treatment facilities and community water systems services at non-rural or urban levels of service, and provide some other services similar to towns but have no incorporated core. UGAs provide a variety of housing types and residential densities, some of which are at urban-level densities, with the remainder conditioned to not preclude future upzoning. The UGAs are pedestrian-oriented with a compact village core.

2. Growth Areas should be designated on the Comprehensive Plan Official Maps where existing or proposed uses and services will meet the above definitions. Growth Areas designated on the Comprehensive Plan Official Maps are identified in Table 1, below.

Table 1. Summary of Urban Growth Areas.

Location	Designation
Friday Harbor	Town
Friday Harbor Urban Growth Area	Urban Growth Area
Eastsound	Urban Growth Area
Lopez Village	Urban Growth Area

3. New urban-level residential, general commercial and general industrial uses, and urban-level facilities and services should be located only in growth areas, except as explicitly provided by this Plan and in compliance with the GMA, in order to avoid incompatible land uses and protect the character and values of the rural areas. Rural industries and heavy industrial types of activities will generally be located in Island Center activity centers and the Rural Industrial areas (see Rural areas, below).

4. Consider the local knowledge, experience, and preferences of community residents, in addition to the directives of the GMA and this Plan, when establishing the type, size, character, and boundaries of a

growth area, deciding appropriate uses and their location, determining community infrastructure requirements, and establishing standards and design guidelines to protect and retain important features which the community values.

5. Subarea plans or location-specific designations and standards for growth areas should be adopted to guide land use and development in these areas. Residential, commercial, industrial, and open space and park areas should be identified in each growth area. Land use districts and development standards for areas should be consistent with GMA direction to develop compact urban areas and to retain and enhance community character and values. Critical Areas within growth areas should be preserved and enhanced.

6. Land use districts, densities and standards for growth areas should be consistent with GMA direction to develop compact urban areas and for most areas to ultimately achieve urban-level densities. Densities and development should be phased so as to be compatible in the near term with existing development patterns. Standards should also be developed to prohibit new development during the phasing period that would physically preclude eventual higher densities.

7. All new development in growth areas should be connected to and served by public or private community water and sewage treatment systems. Long-range sewer and water system plans should be developed or updated by the utility providers in cooperation with the county so that the plans are consistent with the growth projections, land use regulations, and subdivision patterns in each area.

8. New residential development in growth areas should include a full range of single- and multi-family housing types. New areas added to a growth area should permit minimum densities of 4 units per acre in order to support efficient public services and provide a full range of affordable housing opportunities in the future.

9. Open space design standards should be established to maintain the rural character at the borders of growth areas. Open space areas, in the form of squares, green spaces, and parks within growth areas, should be an integral part of these areas to provide settings for recreation and public gatherings, and to protect Critical Areas, scenic qualities, and historic features.

10. The County should investigate storm drainage impacts of current and future development for each growth area, and develop additional design and building standards for land development projects, capital projects, and establishment of a utility if appropriate, to control storm water runoff and associated impacts.

11. The Town of Friday Harbor and the County should prepare and maintain an Urban Growth Area Management Agreement in accordance with the San Juan County and Town of Friday Harbor Joint Planning Policy adopted in 1992, as amended.

12. Urban Growth Areas (UGAs) should be designed to accommodate fifty percent (50%) of the population growth projected for the island where the UGA is located during the twenty year planning period. Development of urban areas should be encouraged consistent with smart growth principles. The Town, County, and utility providers should jointly explore infrastructure planning, construction and financing options for necessary capital improvements. Potential financing options include developer agreements, utility local improvement districts, grants, service area agreements, and impact fees.

13. Establish development standards for planned unit developments (PUD) in growth areas to more effectively accomplish the goals and policies of this Plan and allow flexibility in site planning for sites characterized by special features of geography, topography, size and shape. PUD standards should include provisions for a mixture of housing types and residential densities, and preservation of open space and natural features, as well as concurrency requirements to address impacts on transportation and other capital facilities and services.

14. An adaptive management program regarding seawater intrusion into the Lopez Village UGA water supply is hereby established to evaluate whether existing regulatory and non-regulatory actions with regard to seawater intrusion are protecting the quality and quantity of groundwater used for public water supplies in the Lopez Village UGA. This program is intended to supplement the County's existing water quality protections in San Juan County Code Chapter 8.06.

a. Benchmarks. The program uses June 2002 well data and the groundwater model described in the June 2003 Lopez Village Groundwater Model Report ("2003 Report") prepared by Pacific Groundwater Group as a benchmark. The 2003 Report is hereby incorporated into the Comprehensive Plan by reference.

b. Monitoring network. A well monitoring network of eleven wells has been established in and around Lopez Village in partnership with the Washington State Department of Ecology. Data loggers have been installed on these wells and will measure elevation and static level at least hourly. Additionally, manual samples will be taken at least twice a year from the wells for chemical analysis. The analysis will test for alkalinity, calcium, chloride, conductivity, fluoride, magnesium, nitrate, potassium, sodium, and sulfate.

c. Review by County Hydrogeologist. A County Hydrogeologist will review and analyze data collected by the monitoring network by December 31, 2008, and annually thereafter. The review will include:

i.Analysis of the collected data and comparison to the projections regarding pumpage and water levels in the model developed in the 2003 Report.

ii.Modification to the model in the 2003 Report if it is not simulating aquifer conditions correctly or if more accurate indicators of seawater intrusion are developed and can feasibly be integrated into the model.

iii.Analysis of the aquifer capacity compared to growth projections.

d. Thresholds. Degradation of the aquifer will be considered to occur if the County Hydrogeologist determines that there is a greater impact on seawater intrusion than predicted in the groundwater model. If more accurate indicators of seawater intrusion or other degradation are developed and integrated into the model, such indicators will be used to measure degradation in future analyses.

e. Response to degradation of water quality. If degradation occurs, the County will immediately take appropriate action to cease the issuance of building permits in the Lopez Village UGA. The County will not resume issuing building permits in the Lopez Village UGA until such time as action which will prevent further seawater intrusion has been identified and implemented. (Ord. 40-2008)

2.3.B Activity Centers (including Limited Areas of More Intensive Rural Development)

Goal:

To recognize existing centers of activity, which offer diverse employment opportunities, a variety of residential densities and housing types, general commercial, general industrial, institutional, recreational, and community uses in a concentrated, development pattern.

Policies:

1. Establish different types of activity centers, each of which has a mix of land uses with housing,

businesses, and services appropriate to its character, size, and location, as described in a.–d., below.

Identify and delineate activity centers that are limited areas of more intensive rural development (LAMIRDs) according to the criteria in RCW 36.70A.070(5)(d). LAMIRDs consist of existing (as of 1990, commercial, industrial, or residential areas in which the kinds, intensities, or densities of use, or the capital facilities and services exceed the levels normally associated with rural development. Such areas allow for the continuance of the existing areas and uses, and for infill in the areas to the level of existing patterns; however, the areas must be minimized and contained, with logical outer boundaries defined predominantly by the built environment, and may not extend beyond the existing area or use.

Also establish Master Planned Resort Activity Centers, according to the criteria in RCW 36.70A.360 and 362.

Types of Activity Centers

a. **Village Activity Centers** have only rural governmental services and are not incorporated. They provide a limited variety of residential densities, and are pedestrian-oriented with a compact village core. They provide some intensive uses and services (including community sewage treatment facilities and

community water systems), but are not considered capable of or appropriate for urban-level development or expansion at this time, only for infill.

b. **Hamlet Activity Centers** are residential areas that have some non-rural densities, and have small commercial centers which provide goods and services to surrounding rural and resource land uses. Hamlets are served by community water systems and may have community sewage treatment facilities, but have only rural governmental services.

c. **Island Centers** are generally characterized by existing general commercial and general industrial uses and may also include some rural commercial and rural industrial uses. These centers may be served by community water systems, but have only rural governmental services. Island Centers differ from other Activity Centers in that they generally do not have a high density residential component included within the center boundaries, and new residential development (except where accessory to commercial or industrial use) should be prohibited. The commercial and industrial uses located in these centers provide goods and services island-wide.

d. **Residential Activity Centers** are residential areas that have existing development patterns more dense than one unit per five acres, some portion of which is served by non-rural levels of capital facilities or services.

e. **Master Planned Resorts** are self-contained and fully integrated planned unit developments, in a setting of significant natural amenities, with a primary focus on destination resort facilities consisting of short-term visitor accommodations associated with a range of developed on-site indoor or outdoor recreational facilities. They may contain other residential uses and commercial activities within their boundaries, but only if these uses are integrated into and support the on-site recreation nature of the resort. Master Planned Resorts may be within other activity centers.

2. Activity centers should be designated on the Comprehensive Plan Official Maps where existing or proposed uses and services meet the above definitions. Activity centers designated on the Comprehensive Plan Official Maps are identified in Table 2, below.

Table 2 Summary of Activity Centers

Location	Designation	Existing Site-Specific Plans & Standards
Orcas Village Landing	Village Activity Center	Yes
Olga	Hamlet Activity Center	Yes
Deer Harbor	Hamlet Activity Center	Yes
Doe Bay	Hamlet Activity Center	No (subject to general, interim activity center standards)
Westsound	Hamlet Activity Center	No (subject to general interim activity center standards)
W. Beach Rd/Crow Valley Rd.- Orcas	Island Center	No
Center Rd./School Road-Lopez	Island Center	No
Country Corner-Orcas	Island Center	Yes
North Roche Harbor Area	Residential Activity Center	No
North Rosario Area	Residential Activity Center	No
Roche Harbor	Master Planned Resort	Yes (resort master plan)

Location	Designation	Existing Site-Specific Plans & Standards
Rosario Resort	Master Planned Resort	Yes (resort master plan)
West Beach Resort	Master Planned Resort	No

3. New general commercial, general industrial, and institutional uses should be located in activity centers, as appropriate with the established patterns of development and use, to avoid incompatible land uses and the proliferation of these uses in rural areas.

4. Use the Roche Harbor Master Planned Resort (RHMPR) Activity Center Plan dated June 1994, and modified in April 1996, as a guide for the planned unit development of the RHMPR. The following policies are established to manage development in the RHMPR:

a. The RHMPR Plan is based on a 200-unit reduction in density from that potentially allowed under the 1979-established densities on property under Roche Harbor ownership.

b. A phased planned unit development (PUD), subject to the County's PUD process, should be submitted for approval of any new development in the RHMPR planning area in any one year period, when such development exceeds 4,000 square feet of gross floor area, or for any recreational facility development.

c. Each phase of the PUD should be accompanied by an environmental assessment prepared in accordance with the requirements of the State Environmental Policy Act (SEPA).

d. Each phase of the PUD should include a detailed plan identifying the number of dwelling units, allowable uses, average density, percentage of open space, road access and circulation, and provisions for water, sewage, and stormwater management. The specific area descriptions identified in the Addendum to the modified RHMPR Activity Center Plan should be used to guide phases of the PUD. A master plan for all sanitary sewer and stormwater disposal systems should be provided by the developer for all areas included in the RHMPR and in the Westcott Bay drainage basin, exclusive of those areas in the Rural Farm-Forest designation, prior to implementation of any phase of development.

e. At least one public meeting should be held in the Roche Harbor area prior to approval of PUD phases. Such meetings should provide opportunity for public review and comment on proposed phase plans.

5. In addition to the directives of the GMA and this Plan, consider the local knowledge, experience, and preferences of community residents when establishing the type, size, character, and boundaries of an LAMIRD/activity center, deciding appropriate uses and their location, determining community infrastructure requirements, and establishing standards and design guidelines to protect and retain important features which the community values.

6. Subarea plans or location specific designations and standards for village, hamlet and island center activity centers may be adopted to guide land use and development in these areas. Land use districts and development standards for activity centers should be compatible with existing development patterns and community character, including rural aspects. Critical Areas within activity centers should be preserved and enhanced. Residential, commercial and industrial areas should be identified in each activity center, if appropriate, and specific development standards adopted for these areas.

7. New development in activity centers served by public or private community water and sewage treatment systems should be connected to such systems where available and appropriate. System operators should be responsible for maintaining an up-to-date understanding of the status of their systems (including capacity and numbers of existing connections and commitments to service). For sewage treatment systems and Group A water systems in Village, Hamlet, and Residential activity centers long range sewer and water system plans should be developed or updated by the utility providers in cooperation with the county so that the plans are consistent with the growth projections, land use regulations, and subdivision patterns in each area. Service by such facilities in residential activity centers may be conditioned specifically for the individual area or portions thereof.

8. Mixed-uses, high-density residential uses, commercial, industrial, and public uses, should be located within activity centers where adequate facilities, services, utilities and improvements exist or are planned to support the level and type of development identified, as appropriate to the existing levels and patterns of development, and the established range of uses.

9. Residential development in activity centers, except Island Centers and Master Planned Resort activity centers, should allow a full range of single- and multi-family housing types. Density bonuses are allowable, as appropriate to established development patterns, to achieve affordable housing goals. New residential development should be prohibited in Island Centers except as an accessory to commercial or industrial use. New residential development may take place in master Planned Resort activity centers, but only if it is integrated into and supports the on-site recreational nature of the resort, as determined at the time of Master Plan approval.

10. Open space design standards should be established to maintain the rural character at the borders of activity centers.

11. Open space areas, in the form of squares, green spaces, and parks within activity centers, should be an integral part of these activity centers to provide settings for recreation and public gatherings, and to protect Critical Areas, scenic qualities, and historic features.

12. In all activity centers storm drainage considerations should be addressed in the design of land development projects to control storm water runoff and erosion.

13. Establish development standards for Master Planned Resort activity centers to ensure that development is compatible with surrounding land uses and that adequate facilities and services are available for the level of development planned. Development standards should address, at a minimum, the following:

a. Aesthetic, visual and environmental considerations in order to provide appropriate siting of buildings and amenities to incorporate and retain, as much as feasible, significant on-site natural, historic, and other important features;

b. Location and design of improvements and activities in such a manner to avoid or minimize adverse effects of the resort on surrounding lands;

c. Water quantity and quality, including stormwater management;

d. Location specific standards to retain and enhance resort character;

e. Protection of Critical Areas; and

f. Concurrency requirements for impacts on transportation facilities and other capital facilities and services.

14. Establish development standards for Planned Unit Developments (PUD) in activity centers (where appropriate and practical, given existing development patterns, potential project sizes, available supportive services, terrain, etc.) to more effectively accomplish the goals and policies of this Plan and allow flexibility in site planning for sites characterized by special features of geography, topography, size and shape. PUD standards should include provisions for a mixture of housing types and residential densities, and preservation of open space and natural features, as well as concurrency requirements to address impacts on transportation and other capital facilities and services.

2.3.C Rural Lands

Goal:

To maintain and enhance the rural character of the County. Rural lands are intended to retain the agricultural, pastoral, forested, and natural landscape qualities of the islands while providing people with choices of living environments at lower densities or use intensities than those in Activity Centers. Rural lands also include the Special Districts, which are discussed further in Section B.2.4.

Policies (2.3.C.1–10):

1. Identify as Rural lands on the Comprehensive Plan Official Maps all those which are not within an Activity Center and are not designated as Resource Lands.

2. Adopt performance standards for clearing and grading on Rural lands to minimize the potential adverse impacts of these activities on forested lands, soils, surface water quality and quantity, groundwater recharge, wildlife habitat and scenic resources. Grading to construct ponds and reservoirs should be located a safe distance from roads, maintain in-stream flows of natural drainage courses, and protect adjacent property from damage.

3. Establish provisions for Conversion Option Harvest plans in coordination with the state Department of Natural Resources (DNR) to clearly delineate and coordinate the authorities and responsibilities of the DNR and the County in the processing, administration and enforcement of forest practice activities, especially as they relate to the clearing of land for non-forestry uses.

4. Establish development standards for Planned Unit Developments (PUD) in Rural areas to more effectively accomplish the goals and policies of this Plan and allow flexibility in site planning for sites characterized by special features of geography, topography, size and shape. PUD standards should include provisions for a mixture of housing types at rural densities, and preservation of open space and natural features.

5. Strengthen Right-to-Farm and Right to Forestry provisions which establish the high priority and favored use of Rural Lands, except Rural Residential areas, for farming and forestry activities and assure that such uses will not be considered a nuisance or inconvenience to adjacent non-farm and non-forestry uses.

6. Consider the scope and scale of proposals for the alteration, modification, or expansion of existing camps and existing small resorts. Changes that would expand the scope of services (e.g., adding meal service or new recreational facilities, or adding new convention, hotel or marina facilities), increase the scale of facilities, or add on-site residential housing, should require discretionary use or conditional use permits. Allow expansion of existing uses that conform to the current scope and scale subject to reasonable performance standards to ensure that alteration and expansion of such uses have minimal adverse impacts on surrounding uses.

7. Allow the alteration, intensification, and expansion of existing gravel pits subject to reasonable performance standards to ensure that alteration, intensification, and expansion of such uses have minimal adverse impacts on surrounding uses. If increased off-site impacts (noise, vibration, dust, traffic) would result from expansion or modification, a conditional use permit should be required. Modification to include a new use or operation (e.g., an asphalt plant or a rock crusher) should be a conditional use and be limited to areas where residential densities are planned at five acres or more per unit.

8. Alteration and expansion of existing airstrips and airfields that would result in increased aircraft activity, conflict with the purpose of the applicable land use district, or cause increased adverse impacts to surrounding areas should be prohibited. Allow minor, low-impact changes subject to reasonable performance standards to ensure that such uses have minimal adverse impacts on surrounding uses. Alteration and expansion of existing airports should be subject to a conditional use permit.

9. When evaluating proposals for the alteration, modification, or expansion of non-conforming uses, consider the total impact of the non-conforming uses as well as the added impact of the incremental changes, and the consistency of the changes with the applicable land-use designation.

10. Establish clearly defined Rural land use designations which promote and preserve the rural character of the islands while meeting the varied needs of island residents. The designations are:

a. Rural General Use

Goal:

To provide flexibility for a variety of small-scale, low-impact uses to locate on rural lands. Policies:

(1) Areas which are characterized by the following criteria may be designated as Rural General Use on the Comprehensive Plan Official Maps:

i. There is an existing mix of residential development, scattered single family residences, small farms, forestry activities, resource-based commercial and industrial uses, cottage enterprises, rural commercial and rural industrial uses;

ii. Parcels are generally five to twenty acres in size; and

iii. Soils are marginal or unsuitable for intensive commercial agriculture or forestry uses.

(2) Allow resource-based industrial and commercial activities, rural commercial, rural industrial, and cottage enterprise uses.

(3) Establish performance standards for the uses contained in Policy (2), above, to minimize adverse environmental and visual impacts. Standards should address access, circulation, building height and bulk, lighting, screening, signage, noise, odor, vibration, spray, smoke, waste disposal, and storm drainage control.

(4) Allowable uses should be compatible with the existing rural character and should not result in more than a minimal and manageable increase in demand on existing rural governmental services and facilities, utilities, community water systems, sewage disposal systems, and County roads.

b. Rural Farm-Forest

Goal:

To provide for rural living opportunities which are compatible with small-scale farming and forestry activities.

Policies:

(1) Areas which are characterized by the following criteria may be designated as Rural Farm-Forest lands on the Comprehensive Plan Official Maps:

i. The predominant land use is farming and forestry mixed with residential development; ii. Parcels are generally five or more acres in size; and

iii. Soils are suitable for small-scale agricultural or forestry uses.

(2) Adopt site development standards for permissible uses that will maintain a predominant portion of the farm and forested areas for farming and forest uses.

(3) Allow cottage enterprise uses and agriculture- and forestry-related commercial and industrial uses, such as processing and limited retailing facilities for farm and forest products, to be located on Rural Farm-Forest lands.

(4) Establish development standards that allow for farm stay accommodations for agritourism enterprises.

(5) Allow the development of farm worker accommodations on Rural Farm-Forest lands subject to standards that ensure the occupancy is seasonal and limited to persons employed by the proprietor in farm labor for a farm production season only, and that ensure compliance with applicable public health and safety requirements.

(6) Establish performance standards for the uses listed in Policies (3), (4) and (5), above, to minimize adverse environmental and visual impacts. Standards should address access, circulation, building height and bulk, lighting, screening, signage, noise, odor, vibration, spray, smoke, waste disposal, and storm drainage.

c. Rural Residential

Goal:

To protect the predominantly residential character of some rural areas and provide for a variety of residential living opportunities at rural densities.

Policies:

(1) Areas which are characterized by the following criteria may be designated as Rural Residential on the Comprehensive Plan Official Maps:

i. There are existing small acreage platted areas generally with private covenants and restrictions, and some exclusively residential developments are expected to continue to occur; and

ii. Parcels are generally two to five acres in size, and may also include areas with lots less than two acres in size.

(2) Guide the site design of new residential land divisions to retain rural character and minimize the demand for and cost of public facilities and services.

(3) Prohibit cottage enterprises and commercial and industrial uses, other than home occupations and uses of comparable impact on residential use.

(4) Community facilities such as fire stations, club houses and associated recreational amenities should be allowed in Rural Residential areas to serve these residential communities.

d. Rural Industrial

Goal:

To provide areas for rural oriented industrial uses which are not generally compatible with activity center land uses, which compliment rural character and development, and which can be served by rural governmental services.

Policies:

(1) Areas which are characterized by the following criteria may be designated as Rural Industrial on the Comprehensive Plan Official Maps:

i. Lands with an existing or historical commitment to rural industrial uses;

ii. Lands with direct access to a public roadway classified as a minor or major arterial;

iii. Lands where on-site physical features can be used to protect surrounding lands from negative impacts; and

iv. Areas with parcels sizes large enough to accommodate expansion of existing uses or serve several new uses in a concentrated area.

(2) Rural industrial uses should be limited to those which are most appropriately located in the rural environment because of incompatibility with intensive, mixed use development patterns characteristic of activity centers. Such uses include, but are not limited to, storage yards, lumber mills, wood craft manufacturing, gas storage facilities, and cement batch plants.

(3) New residential development (except where accessory to commercial or industrial use) within these areas should be prohibited.

(4) Establish performance standards for all development in Rural Industrial areas to ensure that allowed uses are consistent with the rural character of the area and minimize adverse environmental impacts. Standards should address access, circulation, signage, parking, noise, odor, vibration, spray, smoke, screening, lighting, waste disposal, and storm drainage control.

e. Rural Commercial

Goal:

To provide areas for rural oriented commercial uses which compliment rural character and development, and which can be served by rural governmental services.

Policies:

(1) Areas which are characterized by the following criteria may be designated as Rural Commercial on the Comprehensive Plan Official Maps:

i. Lands with an existing or historical commitment to rural commercial uses;

ii. Lands with direct access to a public roadway classified as a minor or major arterial; and

iii. Lands where on-site physical features and/or parcel size can be used to protect surrounding rural land uses from negative impacts.

(2) Rural commercial uses should be limited to those which are most appropriately located in and are compatible with the rural environment. Such uses include, but are not limited to, veterinary clinics, nurseries, animal boarding facilities, feed stores, and some small-scale hospitality commercial uses such as country inns and restaurants.

(3) New residential development (except where accessory to commercial or industrial use) within these areas should be prohibited.

(4) Establish performance standards for all development in Rural Commercial areas to ensure that allowed uses are consistent with the rural character of the area and minimize adverse environmental impacts. Standards should address access, circulation, signage, parking, noise, odor, vibration, spray, smoke, screening, lighting, waste disposal, and storm drainage control.

2.3.D Resource Lands

Goal:

To recognize and protect the physical conditions and characteristics of agricultural and forest resource lands which are conducive to the use of such lands for long-term commercial production.

Policies (2.3.D.1–5):

1. Identify lands as Agricultural and Forest Resource lands on the Comprehensive Plan Official Maps which are not designated as Activity Centers or Rural Lands.

2. Apply site planning standards for land division activities on resource lands to ensure that agricultural and forest resource lands are conserved for long-term farm and forest uses.

3. Strengthen Right-to-Farm and Right-to-Forestry provisions which establish the high priority and favored use of Resource Lands for farming and forestry operations and assure that such uses will not be considered a nuisance or inconvenience to adjacent non-farm uses.

4. Continue to apply the Open Space Conservation Overlay District regulations to Agricultural Resource Lands located within the San Juan Valley.

5. Establish clearly defined Resource Lands designations which protect and conserve long-term commercially significant agricultural and forest lands and associated uses. The designations are:

a. Agricultural Resource Lands

Goal:

To ensure the conservation of agricultural resource lands of long-term commercial significance for existing and future generations, and protect these lands from interference by adjacent uses which may affect the continued use of these lands for production of food and agricultural products.

Policies:

(1) Lands in agricultural use which are characterized by the following criteria may be designated as Agricultural Resource Lands:

i. Areas in parcels of ten acres or larger with soils capable of supporting long term commercial agricultural production. The federal Natural Resources Conservation Service (NRCS) identified 34 soil types suitable for farming in San Juan County. These soils can be found on page 121 of the 2009 Soil Survey of San

Juan County, Washington, available at: http://soils.usda.gov/survey/online_surveys/washington/#san2009; or

ii. Lands which meet the criteria in a. above which are under conservation easement for agricultural use or which are enrolled in the Open Space-Agriculture taxation program.

(2) Limit conversion of Agricultural Resource Lands to permanent non-farm uses through implementation of a purchase or transfer of development rights program, special tax assessment programs, conservation easements, and conservation site design options for residential land divisions and boundary line modifications.

(3) Allow cottage enterprises that do not interfere with agricultural use, and allow agriculture-related activities such as processing and limited retailing facilities for locally grown products on farm sites and within agricultural areas consistent with allowances in State law for accessory uses in agricultural resource lands.

(4) Allow farm labor housing and farm stay accommodations subject to specific performance standards on Agricultural Resource Lands.

(5) Limit the location of utility lines and facilities, new roads and road realignments, access routes and other non-agricultural public and private facilities, to the least disruptive locations within agricultural areas.

b. Forest Resource Lands

Goal:

To protect and conserve forest lands of long-term commercial significance for sustainable forest productivity and provide for uses which are compatible with forestry activities while maintaining water quality, water quantity, and fish and wildlife habitat.

Policies:

(1) Lands which are characterized by the following criteria may be designated Forest Resource Lands:

i. are in Forest Land Grades 1-5 on the Department of Natural Resources Private Forest Land Grades map;

ii. parcels are twenty acres or larger, or of a size meeting the Washington State requirements for timber open space designation;

iii. are in a tax deferred status of Designated Forest Land or Open Space-Timber, or are state trust lands under forest management; and

iv. are being managed for the long-term production of forest products with few non-forest related uses present.

(2) Limit conversion of Forest Resource Lands to non-forest uses through implementation of a purchase or transfer of development rights program, special tax assessment programs, conservation easements, and/or the formulation of site design standards for residential land divisions, including standards for planned unit developments.

(3) Allow cottage enterprises, and forest resource-based industries such as lumber processing and retailing facilities for forest products.

2.4 SPECIAL DISTRICTS

This section of the Land Use Element provides goals and policies for the conservation of areas with unique or valuable natural features which warrant specific recognition and protective measures to ensure their existing character is maintained. Two districts, Conservancy and Natural, fall into this category.

2.4.A Conservancy

Goal:

To protect, conserve, and manage existing natural conditions, resources, and valuable historic, scenic, educational, or scientific research areas for the benefit of existing and future generations without precluding compatible human uses.

Policies (2.4.A.1–5):

1. Areas which are characterized by one or both of the following criteria may be designated as Conservancy on the Comprehensive Plan Official Maps:

a. areas possessing valuable natural features or resources which will tolerate only minimal disturbance of the existing terrestrial or freshwater environments; or

b. areas possessing scenic, historical, or recreational qualities of considerable local, regional, state or national significance which would be adversely affected by extensive modification or intensive use.

2. Allow the reclamation, rehabilitation, and where possible, the enhancement of scenic, unusual, and fragile areas and renewable and non-renewable natural resources.

3. Ensure that the location and design of all development within Conservancy areas will minimize adverse impacts on the natural features or resources of the site.

4. Allow uses and activities which promote environmental conservation and provide environmental education opportunities.

5. Prohibit all commercial and industrial uses unless such uses are accessory to an existing use (for example home occupations, cottage enterprise, and paddle boat rentals or maintenance storage yards for park and recreation areas).

2.4.B Natural

Goal:

To preserve indigenous plant and animal species and ecosystems in a natural state for the benefit of existing and future generations.

Policies (2.4.B.1–6):

1. Designate lands as Natural only upon request of the landowner.

2. Designate as Natural only those areas which are characterized by the presence of intact indigenous ecosystems or rare or unusual indigenous plant or animal species which are relatively intolerant of human use.

3. Prohibit uses and activities which would encroach upon and disrupt rare plant and animal species and ecosystems.

4. Prohibit land divisions for residential development.

5. Prohibit cottage enterprises and all commercial and industrial uses.

6. Allow uses and activities which promote preservation of the ecosystem and provide environmental education opportunities.

2.5 OVERLAY DISTRICTS

This section of the Land Use Element provides goals and policies in addition to those above for certain land areas and uses which warrant specific recognition and management. Except as otherwise provided in this Section the provisions of an Overlay District shall prevail over any conflicting provisions of this Plan or plans adopted for urban growth areas, activity centers or subareas. All other provisions of this Plan shall retain full force and effect within the Overlay District. The following types of Overlay Districts are provided for by this Plan:

2.5.A Mineral Resource Lands

Goal:

Assure that mineral resource lands of long-term commercial significance are conserved in order to provide continued and economical local access to valuable minerals, particularly those used for construction materials.

Policies (2.5.A.1–4):

1. Upon application by a landowner, lands which are characterized by the following criteria may be designated as a Mineral Resource Land Overlay District on the Comprehensive Plan Official Maps:

a. Have a known or potential extractable resource in commercial quantities verified by submittal of a geologic and economic report prepared by a qualified professional;

b. Current or future land use will not exceed a residential density of one dwelling unit per ten acres;

c. Are not within an Activity Center, Rural Residential, Natural or Conservancy designation or any Shoreline designation; and

d. Are not within a wetland or fish and wildlife conservation area as defined in this Plan.

2. Protect mineral resource lands of long-term commercial significance from incompatible land uses and land use patterns so that access to existing and potential resources is maintained. With appropriate design and performance standards land uses such as agriculture, forestry and some industries, and low-intensity residential uses (average density at least ten acres per unit), are compatible with mineral extraction and processing while other uses such as medium- to high-intensity residential uses are not. Resource protection should be accomplished without loss of existing density potential.

3. Existing and potential sources of sand, gravel, and rock vary in size and distribution; those which are most likely to provide for long term production with only minimal impact on the environment should receive the highest priority for protection through designation with a Mineral Resource Lands overlay district and attendant regulations to protect long-term access and use potential.

4. Allow those activities associated with long-term mineral extraction which enhance the commercial viability of extraction operations to locate within designated mineral resource lands, subject to performance standards to minimize negative impacts on the surrounding area.

2.5.B Critical Areas

Critical Areas are areas within San Juan County that are important to the healthy function of natural ecosystems, as well as areas that can be hazardous to people and their property. Critical Areas include wetlands, fish and wildlife habitat conservation areas, critical aquifer recharge areas, geologically hazardous areas, and frequently flooded areas. The Washington Growth Management Act requires Counties to designate and protect critical areas. The policies in this section are intended to guide County regulations and programs for Critical Areas to ensure they are protected. (Additional goals and policies related to Critical Areas within the shoreline jurisdiction are found in Section B, Element 3 of this Plan).

Goal 1: Protect the functions and values of Critical Areas, giving special consideration to anadromous (migratory) fish.

Goal 2: Allow for use of property to the greatest extent possible while protecting Critical Area functions and values.

Goal 3: Establish Critical Area requirements that are balanced and related to impacts.

Goal 4: Establish funding mechanisms to support Critical Area protection programs including funding for voluntary measures such as education, technical assistance, and cost share programs.

Policies (2.5.B.1–11):

1. In conformance with the Washington Growth Management Act, in designating and protecting critical areas establish regulations that protect Critical Areas based on consideration of the best available science.

2. Adopt policies and regulations that, as of the effective date of implementing ordinances, are designed to protect functions and values of critical areas.

3. In addition to regulations, develop voluntary and incentive-based programs to protect the overall functions and values of Critical Areas and other natural resources. Voluntary actions may include education, technical assistance, water conservation, stewardship programs, implementation of best management practices, and restoration activities. One purpose of these programs is to mitigate impacts resulting from authorized exemptions and exceptions.

4. The impacts of land use and development preferably will be managed and mitigated on site.

5. When developing Critical Area regulations, consider the positive effect of all State, Federal and local environmental protection programs.

6. To the extent possible, adopt protection standards that vary based on site characteristics.

7. Encourage the installation of water catchment systems.

8. Implement applicable provisions of adopted Salmon Recovery and Marine Area Stewardship Plans, giving special consideration to anadromous fish.

9. Monitor and enforce permit requirements and Best Management Practices designed to protect Critical Areas.

10. Control or eradicate invasive and/or noxious weeds in conformance with RCW 17.10.

11. Any regulation created pursuant to these policies should include provisions for reasonable use exceptions and nonconforming uses.

a. Geologically Hazardous Areas

Goal: To protect the public health, safety and welfare from threats resulting from incompatible commercial, residential, institutional or industrial development being sited in geologically hazardous areas.

Policies:

i. Designate geologically hazardous areas in accordance with WAC 365-190-080(4).

ii. Designate and classify areas on which development should be prohibited, restricted, or otherwise controlled because of danger from geological hazards based on the level of hazard or risk.

iii. Require that significant geological impacts resulting from development are either mitigated or avoided within geologically hazardous areas.

iv. Avoid locating essential public facilities such as hospitals and emergency response operations in geologically hazardous areas.

b. Frequently Flooded Areas

Goal: To protect the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas of special flood hazard.

Policies:

i. Protect the important hydrologic role of frequently flooded areas by designating those areas subject to frequent flooding or coastal inundation as special flood hazards. At a minimum, designate and protect the 100-year area of special flood hazard as defined and mapped by the Federal Emergency Management Agency.

ii. Prevent or mitigate the impacts of development which may result in hazards to persons or property, or harm to hydrologic functions. In general, this will be accomplished through compliance with applicable building codes, the San Juan County Flood Hazard Ordinance and the requirements of the Unified Development Code.

iii. Minimize expenditures of public money for costly flood control projects and minimize the need for rescue and relief efforts associated with flooding.

c. Critical Aquifer Recharge Areas

Goal: Protect the quality and quantity of groundwater.

Policies:

i. Designate and classify those areas which have the characteristics of critical aquifer recharge areas.

ii. Within critical aquifer recharge areas, regulate those uses which could potentially have a significant negative impact on ground water quality and/or quantity. Such uses include, but are not limited to, underground hazardous materials storage tanks, facilities which use or store significant amounts of hazardous materials or wastes, large on-site sewage disposal systems, petroleum pipelines, landfills, and surface mining operations.

d. Wetlands

Goal: To protect wetlands from a net loss in functions, values, and acreage.

Policies:

i. Designate, classify, and regulate wetlands based on wetland functions and values consistent with State guidance.

ii. Establish standards for wetland protection including use limitations and buffers based on the classification of the wetland and the potential impact of a proposed use on the wetland.

iii. Establish a mitigation sequence which includes, in order of priority, avoiding, minimizing or compensating for adverse impacts to regulated wetlands and/or their buffers.

iv. Define wetlands consistent with RCW 36.70A.030(21).

v. Delineate wetlands using the Washington State Wetlands Identification and Delineation Manual, Ecology Publication 96-94, or comparable criteria consistent with state law, RCW 36.70A.175.

vi. Establish methodologies which provide for compatible agricultural uses of wetlands and their buffers.

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e. Fish and Wildlife Habitat Conservation Areas

Goal 1: To protect the functions and values of fish and wildlife habitat conservation areas.

Goal 2: Within and adjacent to 100 year areas of special flood hazard, protect and restore habitat for salmon listed as endangered, threatened or sensitive.

Policies:

(1). Designate and classify fish and wildlife habitat conservation areas in accordance with WAC 365-190-080(5) based on type, State or Federal status, association with priority species, or species of local concern.

(2) Establish standards including buffers, timing restrictions, and site specific habitat management plans based on the classification of the habitat area and the potential impact of a proposed use on the affected habitat.

(3) Use the WA Dept. of Natural Resources stream typing system.

(4) Establish clearing, grading and stormwater management regulations that protect water quality, water quantity, and fish and wildlife habitat from short term and long term impacts of land use and development.

(5) Adopt regulations prohibiting the blockage of fish passage in F type streams.

2.5.C Open Space Conservation

Goal: To protect those significant open spaces and vistas which substantially contribute to the rural character of the County.

Policies (2.5.C.1–2):

1. Identify open space resources of high and very high conservation priority and establish an Open Space Conservation Overlay District for these areas. High and Very High conservation priority areas are preliminarily identified on maps in the Open Space and Conservation Plan. Consider applying the Open Space Conservation District Overlay to those lands that are within landscape units which are rated in the Open Space and Conservation Plan and which have a score of 35 and above. Seek opportunities to work with property owners to prepare conservation plans for development in these areas upon designation of an Open Space Conservation Overlay District.

2. Site planning standards for development in Open Space Conservation Overlay District areas should be specific to the type of open space resource involved and its particular sensitivity to land alteration.

2.5.D Airport Overlay District

Goal: To protect the public health, safety and welfare, to recognize those areas devoted to aviation uses and provide areas for those activities supporting or dependent upon aircraft or air transportation, when such activities benefit from a location within or immediately adjacent to a public airport, and to promote compatibility between airport uses and land uses and activities in the airport vicinity and environs.

Policies (2.5.D.1–4):

1. The Airport Overlay District designation may be applied to publicly-owned airports, and accessory uses. The boundaries of an airport overlay district may not necessarily coincide with those of a port district.

2. Designate FAA Airspace Zones within the Airport Overlay Districts and establish development standards and regulations for the lands underlying FAA imaginary surfaces including but not limited to, standards for location, design, operations, clearances, marking and lighting, buffering, landscaping, and noise abatement. Such standards should be based on Federal Aviation Administration advisory circulars regarding "Model Airport Hazard Zoning" and FAA regulations regarding "Objects Affecting Navigable Airspace" as they may be amended.

3. Designate Aircraft Accident Safety Zones within the Airport Overlay Districts and establish development standards and regulations for allowable uses, residential densities, open space, and noise to address safety issues and avoid the location of potentially incompatible uses in the airport environs.

4. If there is any conflict between regulations of an Airport Overlay District and regulations of an underlying designation, the more restrictive regulations should apply.

2.5.E Watershed Management

Goal: To protect surface and ground water quality and quantity used for drinking water, and necessary to support marine areas sensitive to land use and development activities.

Policies (2.5.E.1–2):

1. Identify surface water bodies and groundwater recharge areas used for public drinking water supplies and, if appropriate, establish a watershed management overlay designed to address the particular water quality and quantity needs for the selected areas.

2. Identify critical marine habitat areas, including but not limited to commercial and recreational shellfish areas, and establish watershed management overlays for them that, in addition to shoreline management provide sufficient protection from the impacts of upland uses and developments to maintain their habitat quality.

3. When feasible, use a watershed based approach for managing water, aquatic ecosystems and other natural resources.

2.6 SUBAREA PLANS

This section of the Land Use Element provides goals and policies to guide the development of subarea plans. Subarea plans are intended to address the needs of specific geographic areas or the management of resources when they cannot be adequately addressed by the designations and provisions of this Plan.

2.6.A Goals and Policies

Goal: To provide for the creation of detailed plans for village activity centers, specific geographic areas, or for resources, in order to better address the unique needs and interests of those areas, environments, or functions.

Policies (2.6.A.1–5):

1. Subarea plans should be consistent with, and more specific than, the goals and policies of this Plan and consistent with State law.

2. Subarea plans may be developed to address unique circumstances and achieve specific goals which cannot be accomplished through or by amendment of the goals and policies of this Plan and associated regulations. Subarea plans for village activity centers may include rural and special district lands adjacent to their boundaries.

3. Subarea plan proposals may be initiated by public or private groups, agencies, or individuals. Subarea plans should be presented initially as a general concept so as to allow full opportunity for public and agency participation in subarea plan development. Fairness, openness, and full citizen participation shall be paramount in all subarea planning procedures and processes.

4. Subarea plan proposals should include the following: Statement of Purpose; Description of Citizen Participation Process; Description and Character of the area; and, the Vision or Goal to be achieved by the subarea plan.

5. Subarea plan proposals should be preliminarily evaluated by the Planning Department and reviewed by the Planning Commission prior to authorization by the Board of County Commissioners for inclusion in Planning Department work programs.

2.6.B Existing Subarea Plans

The following descriptions outline the general purpose and area of application of adopted subarea plans.

1. DNR Trust Lands Management Plan

This policy plan adopted by the County and the Board of Natural Resources in 1986 identifies the most appropriate uses of and management plans for approximately 2,500 acres of Washington Department of Natural Resources-managed trust land in the county. Trust lands in the county are located on six islands. Twenty-one of the properties are “common school trust lands" with limitations on their disposition and use.

2. Eastsound Subarea Plan

Eastsound is the largest unincorporated community in the county. It is the geographic center of Orcas Island and is the commercial and cultural center of the island community. The plan provides land use and development goals, policies and regulations specific to the Eastsound area. The Plan includes an official map that illustrates the boundaries of the subarea and the different land use districts within the boundaries. The Plan was first adopted in 1981, was completely revised in 1992, and further amended in 1996.

3. Open Space and Conservation Plan

This plan was adopted in 1991 and is intended to identify and recommend a variety of possible methods to protect those open spaces, vistas and view corridors that substantially contribute to the sense of rural character that now prevails in most of the county. The Plan presents the methods used for identifying significant open space resources, factors working to degrade those resources, and the effectiveness of

open space conservation tools presently available. The Plan adopts no regulations, instead it presents specific recommendations for action to conserve open space resources.

4. Shaw Island Subarea Plan

The Shaw Island Subarea Plan was adopted in 1994 to protect the existing character and qualities of Shaw Island through goals, policies and regulations which are more specific to the needs and interests of the Shaw community. Shaw residents and property owners wish to protect the quiet, rural environment that results from limited commercial activity and a limited transportation network, and to ensure that demand does not exceed the present or planned capacity of infrastructure and public services.

5. Waldron Island Limited Development District (LDD) Subarea Plan

The Waldron Island Limited Development District Subarea Plan was adopted in 1995 and is a complete revision of the original plan adopted for Waldron in 1976. While Waldron is frequently characterized by the amenities it does not have (ferry service, electricity, paved roads), it is rich in attributes highly valued by the majority of its residents and property owners. Fields and forest, rock and beaches, clean air and water are part of everyday life, as are litter free, unpaved roads with minimal motor vehicle traffic. Waldron is not a wilderness, but the environment is relatively unspoiled. The plan recognizes the limited availability of government services and capital facilities existing and planned for on Waldron and is designed to maintain the existing rural, residential and agricultural character of the island.

Housing

Previous Comp Plan Material

See: http://www.sanjuanco.com/DocumentCenter/Home/View/1051

Vision:

> *"The supply of affordable housing is adequate to meet the needs of our diverse population. . . There is housing for people of all incomes."*
> From The San Juan County Vision Statement: *Basic Human Needs and Land Use*

For Housing Needs Assessment Appendix, see: http://www.sanjuanco.com/DocumentCenter/Home/View/1064

New Comp Plan Material

The Housing element home page currently has a *Preliminary Draft Housing Needs Analysis*, Published August 9th, 2017. See: http://www.sanjuanco.com/DocumentCenter/Home/View/12788

That analysis projects the need for an additional 1,524 homes, with 809 located in Urban Growth Areas (UGAs). They are projecting about 70% of new homes will only be used for vacant seasonal, recreational, or occasional use - NOT for owner or renter occupied housing. Thus, there will be an additional need for 721 housing units, for a total of 2,245 housing units to meet the 2036 projected population.

Land prices are generally expected to be beyond the reach of many economic sectors for the foreseeable future. this will have significant consequences on the demographic profile of the community - increasing elderly, reducing the portion of youth and young parents. If housing affordable to the very low, low, moderate and middle income groups is not available, few in those income groups will migrate her, and those presently here in those income groups may be forced to move elsewhere.

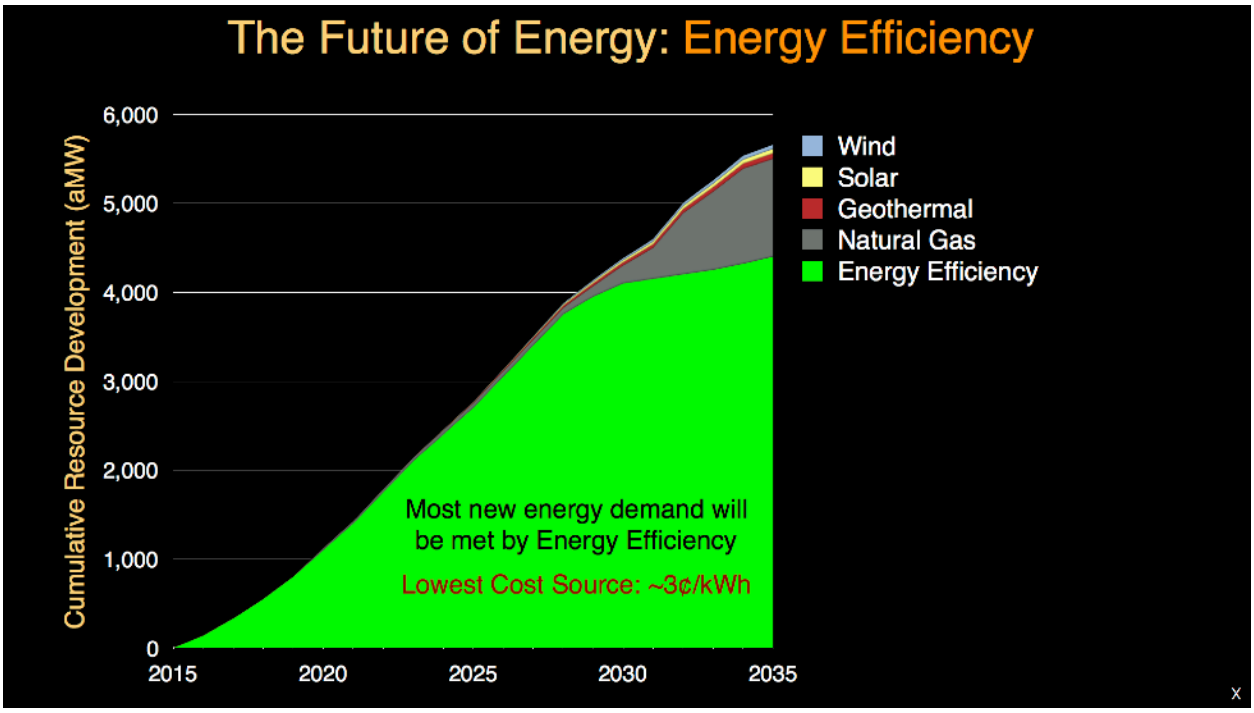
Background Narrative

The Comp Plan work group has prepared suggested changes to the Housing Element language. See the Recommended Language section below.

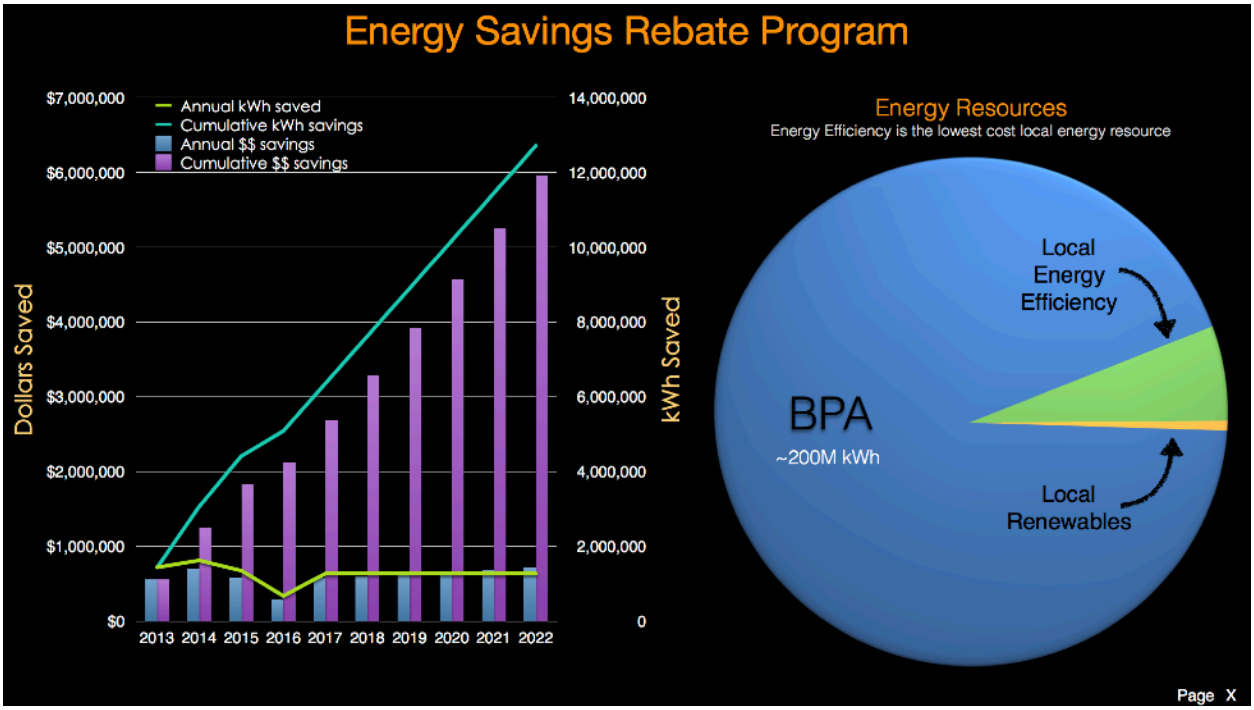
From an energy perspective, Most energy used in the county is used by the residential sector, with home heating representing the largest use of electricity. Most homes heat with electricity, as it is the lowest cost form of energy compared to other heating fuels such as propane, heating oil, and wood.

OPALCO helps islanders improve the efficiency of their homes, through a variety of education and rebate programs aimed at Energy Efficiency and Conservation (EE&C). Popular and effective approaches include weatherization, insulation, window upgrades, heat pump heaters and heat pump water heaters. OPALCO also offers home energy snapshots to evaluate opportunities for efficiency and reducing wasted energy.

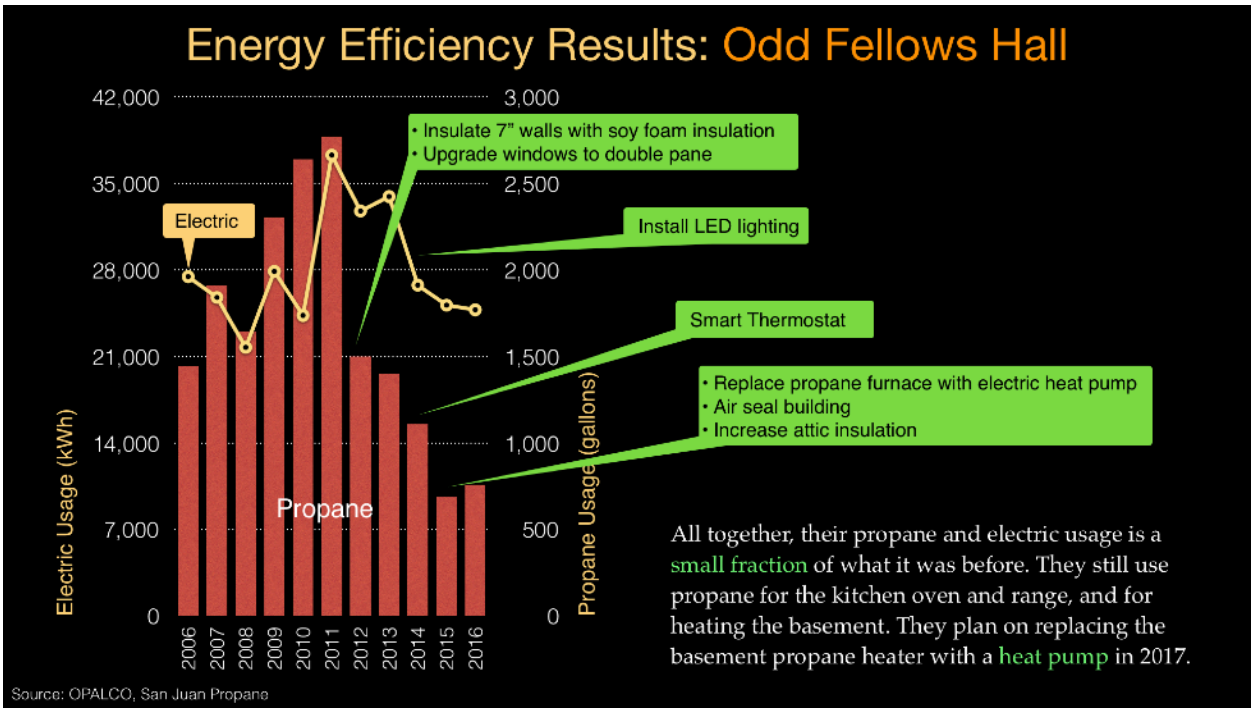
The Northwest Power and Conservation Council, in their 7th Power Plan, estimates that most new energy demand will be met by EE&C. See chart below.



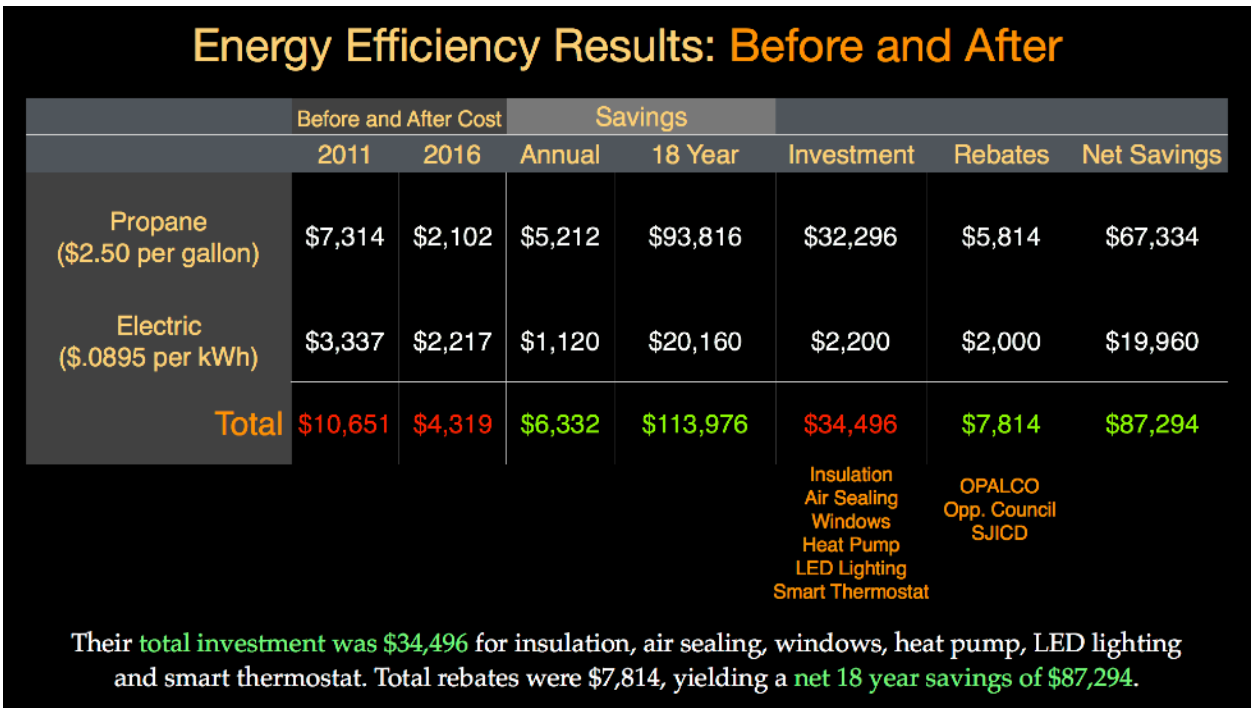
Energy efficiency in homes costs a fraction of the actual cost of energy, providing a rapid return on EE&C investments. EE&C mitigations keep giving back over the life of the home. The chart below shows the cumulative benefit of islander EE&C investments in homes and businesses.



The chart below shows a typical approach to improving energy efficiency. In this example, the building used both propane and electricity for heating. Note the substantial reduction in propane and electricity consumption with the improvements in insulation, weatherization, and shifting from propane heat to electric heat pumps.



The savings in energy translate to savings in cost, keeping more dollars in county, and in the pockets of islanders. The chart below shows the how the savings add up over the 18 year typical life of a heating system.



At the moment, these EE&C programs are done by owners who become aware of the savings opportunity afforded by investment in efficiency via OPALCO education and rebate programs. The Comp Plan Housing Element can help establish goals and policy build awareness and commitment to continually improving the efficiency of existing and new housing stock, through establishing efficiency building standards, codes, and best practices.

Increased building efficiency increases local resilience by reducing our dependance on imported energy, and the amount of local energy generation required.

It is also worth noting that some of the best practices on energy and water efficiency and building standards are being practiced by the Community Land Trusts in this county. Many low-income homes have historically had poor efficiency performance. the Land Trusts have been leaders in ensuring new homes are built to modern efficiency standards, helping the homeowners save money with reduced energy and water bills.

Recommended Language

This material is developed by our workgroup.

Suggested Comp Plan Language (Islands Climate Resilience Steering Committee)

General Housing

Edits to previous policy 5: Provide the most up to date information on critical environmental areas and natural resource lands, and incorporate the best available science on climate change projections, to identify potential land development constraints.

Edits to previous policy 6: Identify and address potential mitigation for critical area impacts and climate change risks as early in the permitting process as possible.

Affordable Housing

New policy: Ensure that any UGA expansions include a permanent affordability requirement for at least 50% of the units created.

New policy: In funding affordable housing, include funding to improve the affordability of both new and existing housing through investments in energy conservation and/or efficiency, and renewable energy generation.

New policy: Explicitly consider climate change risks in siting new affordable housing units and avoid sites projected to have increased risk of flooding, landslides, severe erosion, or water shortages.

Suggested Comp Plan Language (Chom Greacen, Rhea Miller, Rick Strachan and Sandy Bishop)

September 11, 2017
Submitted by the Housing Sub-group convened by OPALCO. (Chom Greacen, Rhea Miller, Rick Strachan and Sandy Bishop contributors).

In preparation for our comments we reviewed the 2009 SJC Housing Element, the 2017 SJC Housing Needs Assessment draft and also reviewed the Bellingham, Martha's Vineyard and San Diego comp plans.

We note that the 2009 Housing Element and the 2017 Housing Needs assessment both outline the housing issue and the challenges we face. But there are two areas of focus that that need to brought to light in the revised Comp Plan. They are: 1) Funding. Without funding mechanisms we see very little hope that that progress will be made. 2) Countywide metrics and policies to support energy efficiency, renewable energy production and healthy homes. 3) Further housing options on Ag Resource Lands contained within a designated footprint.

New Proposed 5.2 Housing Element suggestions:

Create multiple funding sources to accomplish the SJC housing objectives, goals and policies.

- Fund the San Juan County Housing Bank through a Real Estate Excise Tax and other funds.
- Establish a progressive fee structure for building permits on all new or remodeled homes where aggregate footprint of heated space is over 1,200 square feet.

Establish county-wide metrics and standards for energy savings and renewable targets and climate resiliency.

Require all new heated buildings in SJC to be more energy efficient, incentivize small building footprints and promote renewable energy sources.

- require all new heated buildings and remodels (where 50% or more of the building is remodeled) to be net zero by 2025.

Encourage health related improvements to older homes, including the removal of lead based paint, asbestos, and other potentially harmful materials.

Encourage housing retrofits to make older housing stock more resilient to natural disasters and climate change, are more energy efficient, and provide healthier indoor environments, including good air quality.

Specifically on 5.2.D. # 5 & 6

Change from 2009:
5. ~~Study the potential of a permanent, voter approved, funding mechanism for Affordable Housing such as levy lid lift, Real Estate Excise tax or through some other means such as impact fees, property taxes, recording fees and revenue bonds.~~

Change to: 5. Fully fund the San Juan County Housing Bank through support of a permanent, voter approved, funding mechanism for Affordable Housing such as levy lid lift, Real Estate Excise tax or through some other means such as impact fees, property taxes, recording fees and revenue bonds and encourage the San Juan County Housing Bank to work with local established 501 c 3 housing organizations to market estate planning and other effective tools in order to bring more affordable housing into the market place.

Change from 2009:
6. Review, within ~~24 months~~ 90 days of the adoption of this update, all development regulations for UGAs to ensure the regulations that enhance and encourage creation of denser, walking centered communities.

Suggested Comp Plan Language (from OPALCO)

Notes

All edits appear in red. Original Comp Plan language in black.

5.1 INTRODUCTION

5.1.A Purpose

The purpose of the Housing Element is to identify and prioritize programs which advance a diversity of housing opportunities in the County. The Housing Element identifies housing needs in the county and establishes goals and policies to direct county actions to meet these needs. The element provides an opportunity to focus on the leadership role that local government can take to work cooperatively with all segments of the community in order to maintain and increase affordability within the context of protecting the public health, safety and welfare.

In addition, the Housing Element focuses on increasing the efficiency with which buildings use resources such as energy, water, and materials, while reducing building impacts on human health and the environment.

5.1.B Summary of Housing Needs

Appendix 5 in this Plan includes detailed information on the County's population and housing characteristics. Appendix 5 is the Housing Needs Assessment and provides the foundation for projections of housing units needed by all income groups. The Housing Needs Assessment provides information on income, employment, housing costs, and housing needs of all groups. The term 'need' in relation to housing units concerns both rental and owner occupied units throughout and does not necessarily assume the maintenance of the current ratios.

<see table http://www.sanjuanco.com/DocumentCenter/Home/View/1051>

Nearly all estimates of the detailed characteristics of population and housing are based on scaling the information from the 2000 Census to current estimates of the County's total population and number of dwelling units, and follow the Office of Financial Management's Middle Range Population Projections. Estimates of housing need are based on a number of simplifying assumptions about people's financial resources and decisions about how they will meet their own housing needs. The assumption that the population is equally distributed in the average household size of 2.16 leads to the conclusion that there are currently only 7,454 households in the County. Due to the unique housing market, environment, and employment characteristics of San Juan County these estimates and assumptions must be considered with caution. It is clear; however, that if the County is to continue to provide a place to live and work for a wide variety of people, and to move toward a balanced, year-round economy in accordance with the Vision Statement and goals of the Land Use Element, the County must act to make provisions for the development of housing affordable to very-low to moderate-, middle-and low-upper income groups.

Housing Affordability

The U.S. Department of Housing and Urban Development (HUD) and the State of Washington have established 30 percent of gross household income expended for housing, including cost of basic utilities (including water, sewage disposal, electric power, and fuel or power for space heating and cooking, but not including telephone), as the amount considered affordable for all income groups.

Household income groups are defined as very low, low, moderate, middle and upper income by the relationship of their income to the median household income for the County. Household income groups are not differentiated by household size in the Census. Households with incomes up to 50 percent of the median income are classified as very low-income; households with 50 percent to 80 percent of the median income are classified as low-income. Moderate-income households are those with 80 percent to 95 percent of the median, and middle-income households are those with 95 percent to 120 percent of the County median. There are some households that fall into the HUD definition of Upper-Income, however they only earn between 120 percent and 150 percent of the AMI, a group that in San Juan County may be cost burdened by the price of housing. This group is referred to as low-upper-income households throughout. Upper-income households are those whose household income is greater than 150 percent of the median. (In the discussion below, unless the very low-income group is separately mentioned, "low-income households" is understood to include very low-income households.)

Table 5-15 in Appendix 5 shows the distribution of household incomes in San Juan County in 2008 based on the 2000 Census and HUD AMI categories. Table 5-16 shows the approximate number of households in the different AMI categories that pay 30+ percent of their gross income for housing. This table shows

that 36 percent of the very-low and 48 percent of low-income households pay more than 30 percent for their housing. 72 percent of moderate- and middle-income households cannot find housing sufficient to meet their needs for less than 30+ percent of their gross income. The figures in Tables 5-15 and 5-16 show that there is a significant problem for very-low to middle-income households in finding affordable housing in the County.

HUD and the State of Washington define income limits for public housing and housing subsidy programs by household size. HUD income limits are established each year based on estimated median family income. Table 5-17 in Appendix 5 shows these income limits for the year 2008. Table 5-19 shows the maximum housing costs for each of these sectors that would be affordable. These tables provide a guide to the cost of housing that would be considered affordable to households in different income ranges. In evaluating specific projects, the applicable tables for the current year should be used.

Federal housing subsidy programs are only available to very low- and low-income families (0-80 percent of the AMI). Therefore housing strategies that emphasize support of subsidy programs operated by the state and federal governments address only the needs of these groups, and do not address affordability for other income groups.

Table 5-B above shows that approximately 23 percent of households in the County are classified as very low-income households. Approximately 16 percent are classified as low-income households, for a total of 39 percent low-and very low-income households.. Another 16 percent are classed as moderate-income households, 17 percent as middle-income households, and 13 percent low-upper-income households. The remaining 15 percent of households are considered upper-income. More recent data suggests that the percentage of upper income households in the County has increased since 2000.

Data on wages paid to workers in the County indicate that most households depending on locally-earned wages for their income would be expected to fall within the low- to middle-income categories, even if two wage earners contribute to household income.

Affordable housing for workers is critical if local businesses, professionals, schools, public agencies and other employers are to have a reliable source of experienced workers to provide the goods and services needed by island residents. Providing affordable housing is therefore important to meeting the County's goals for a dependable and balanced local economy. Information in the 2008 Housing Needs Assessment indicates that there is a continuing problem of housing affordability for these groups.

Existing affordable housing need is not solely a need for additional housing units to be constructed, but there is also a need to make existing units affordable for low- to middle-income households. These units can be made available by income supplements, by purchase of existing units and resale or rent at lower cost, as well as by construction of new units. It is reasonable to assume that at least some very low- and low-income households occupy substandard housing units, and that some additional housing available to low- and very low-income households should be constructed to meet the needs of these population groups.

Housing needs can be converted into annual housing construction and/or affordability targets for each income group based on the total of:

1. the number of units needed to address the additional housing needs resulting from each income group's share of population growth, plus

2. the number of units needed to replace affordable housing units lost from the affordable housing stock that year through demolition, price increases, or other conversion to non-affordable units,

Addressing Affordable Housing Need of Current Residents

Since the people in need of these homes already reside in the county, no additional dwelling units affordable to the very low and low- income groups need to be constructed to meet this need. Instead, existing housing may be made affordable by maintaining the subsidy for existing units, or by rehabilitating existing substandard units, or by providing vouchers that low-income families can use to supplement housing payments. By these methods, housing affordable to very low- and low-income households can be provided without additional housing construction.

Addressing Housing Need Resulting from Population Growth

Actual population growth should be used to determine need for development of additional housing. Population growth can vary substantially from year to year based on employment, construction and housing costs, and other factors. The projected population growth for the County to be used for planning purposes is defined by the State of Washington. The County is expecting 2,969 new households by 2025, or approximately 175 per year, the income characteristics of these households will largely depend on the availability of housing affordable to the variety of income groups.

Based on the increasingly out of date 2000 Census percentages, approximately 38 percent of all households were very low- and low-income households, and 16 percent were moderate-income households. Based on the assumption that 38 percent of the expected new households will be of very-low and low income, of the 175 units needed per year, 66 units of housing affordable to very low- and low-income households would be needed in the year 2009, with the number increasing slightly each year thereafter. 28 units would be needed for moderate-income households, and 30 units would be needed for middle-income households The total number of units needed per year to meet the demand for housing affordable for the very low-, low-, moderate- and middle- income households will be approximately 124 units. An additional 51 units per year would be needed to meet the needs of new low- upper and upper-income households.

Additional affordable housing needs to be provided on each of the islands in proportion to growth in full-time population and employment.

The increased population will, by definition, increase the demand for a variety of social housing needs, such as domestic violence shelters, transitional housing, elderly care facilities, assisted living facilities, seasonal labor accommodations and others.

Addressing Housing Need from Loss of Existing Affordable Units, and Using Newly Affordable Units to Address Affordable Housing Needs

It is difficult to estimate the last two factors contributing to the stock of affordable housing, units lost to the affordable housing pool and units added to this pool by market factors. Based on current trends in land costs and the observed inability of low- and moderate-income households to find affordable housing, it is reasonable to assume that in the short term no net increase in the number of units affordable to low- and very low-income households will result from these two factors, and that at least a few additional affordable units will be needed each year to compensate for loss of such units as a result of market forces. Needs of moderate-income and middle-income households are much more likely to be met from filtering-down of housing units from middle and upper-income groups, and from conventional unsubsidized housing construction at densities at the higher end of the density ranges available in the County.

It is likely that workers currently nearing retirement age will cease working over the planning horizon and the housing units they currently own will not be available for those people who may take over their positions. This may exacerbate the need for low to middle income housing.

Based on all these factors, at least 124 additional housing, whether for purchase or rental units affordable to very -low, low-, moderate- and middle-income - households will be needed each year for a period of 17 years.

In addition, the County's projected population in 2025 reveals a lack sufficient numbers of working age people to fill the positions likely to be available in the county, which may mean that approximately 3,443 workers will need to commute into the county on a daily basis. The clearest method to reverse this trend is to support the construction of housing that is available at a variety of rental price points or affordable to first time home buyers.

Housing Affordability for Middle-Income Households

The 2000 Census identified a significant housing affordability problem for moderate and middle income households. Approximately, 879 households earning between $61,750 and $78,000, or 72% of those groups could not find suitable housing for 30% or less of their gross household income. Anecdotal

evidence suggests that rental housing for households in these categories may be currently available; however that is likely to change over the planning period.

Updating of Housing Needs Assessment Based on Year 2010 Census

Because all these estimates are based on projections from the detailed population and housing profiles from the 2000 Census, it will be important to revise the Housing Needs Assessment as soon as the Year 2010 Census becomes available and if it indicates that there has been a substantial change in the proportion of households in any income group lacking affordable housing.

Accessory Dwelling Units (formerly, "Guest Houses")

The County's existing inventory of accessory dwelling units supplies housing units for some very low-, low-, moderate- and middle-income households. Outside of UGAs and Activity Centers, the construction of new ADUs is limited to a proportion of issued building permits per year, currently averaging about 10-12 per year. Over the planning period it is expected that a number of these units will provide housing affordable for some households, however, their size limitations and (often) desireable locations may encourage owners to pursue the vacation rental market.

Available Land for Housing

Analysis of the development patterns in the County indicates that there are currently approximately 15,794 parcels in the county of which just over 50 percent are developed. Additional development potential exists on some of the existing rural lots through subdivision, and a significant potential for single- and multi-family residential development exists in Eastsound, Lopez Village and Friday Harbor UGAs. Based on potential subdivisions under subdivision standards at currently permitted development density, a substantial number of additional parcels could be created in unincorporated areas of the County.

Efforts to minimize development in rural areas through downzoning, the purchase of conservation easements by the Land Bank, the desire of some owners not to divide their properties, the limitations imposed by critical habitats or environmental hazards, and other factors are expected to reduce the ultimate number of parcels that will be developed. Based on the ability to further subdivide, the County appears to have the capacity for approximately a further 8,935 housing units. Thus the County is far from exhausting the total land needed to meet the housing needs for all population groups. There are substantial limits on the ability to develop portions of this land for housing affordable to very-low to middle-income households.

Based on observed trends in assessed valuations and some anecdotal evidence presented at community meetings on housing issues, the housing market is currently acting to foreclose new opportunities for households which depend on wage or salary incomes or otherwise fall into very low-, low-, moderate-, middle- and low-upper-income categories and to eliminate existing housing units that are available at affordable prices and rents to households in these income ranges. Although the 2000 Census showed that many low- and moderate-income households live throughout the County's rural areas, many of these people purchased their property at a time when land prices were low, and when there were many parcels available on which it was possible to locate a mobile home, manufactured home, or other small dwelling. Many of these residents could not afford to purchase their current home with their current income at today's prices.

The housing problem is compounded in San Juan County by the seasonal nature of a substantial share of the County's employment, the seasonal or occasional use of approximately 29 percent of the housing stock, and the dual character of the housing market. San Juan County's housing market includes an unusually large component meeting the needs for retirement and vacation homes for people with non-wage incomes and wealth substantially greater than the county median. Because of the relatively small total number of properties available for sale and development in the county at any one time, it takes only a small change in this specialized market to affect prices in the remainder of the housing market, which must meet the needs of those whose primary income is the wages they make from work in the County.

Available Land in Rural Areas

Historically, most available land for housing has been in the County's rural areas. Recent anecdotal information indicates an increasing trend toward gentrification of substantial areas of land in the County, particularly shoreline and water view properties. Price pressure from these changes has caused land prices in interior rural areas to increase as well.

Policy changes included in Year 2000 amendments to the Comprehensive Plan reduced the number of potential land divisions in order to preserve the rural character of rural and resource lands. These changes made land for housing scarcer and more expensive in rural areas. In the past, rural areas have provided a substantial share of the county's low- and moderate-income housing. As these properties are sold, current trends indicate that they will no longer be available to low-, moderate- and middle-income households. If the County is to preserve opportunities for low- moderate- and middle-income housing in rural areas, some special accommodation for low-, moderate- and middle -income housing in rural areas will be required. The rural residential cluster development concept proposed in the Housing Element policies has the potential to provide units in the rural lands potentially 12 new affordable housing units per year in rural lands, but is unlikely to meet even 10 percent of the identified need for new very-low, low-, moderate- and middle-income housing units.

The County's Village, Hamlet and Residential Activity centers provide some opportunity for low- and moderate-income housing; however, relatively few opportunities for further land division and development at densities conducive to affordable housing for these income groups remain even in these areas.

Available Land in Growth Areas

The urban growth area outside of the Town of Friday Harbor, and the County's two new urban growth areas, Eastsound and Lopez Village, are the most promising locations in the unincorporated area for the remainder of the low and moderate-income housing needed unless a new fully contained community is created in the County. Sufficient land exists in these three UGAs to meet 50% of the housing needs of the population growth attributed to their respective islands. The ability to expand water and sewer service in these areas places constraints on the number of new units that can be constructed in these growth areas. A change to bond-funded utility construction is likely to be required, and major investments programmed, before these growth areas will be able to accommodate estimated development in an orderly manner.

It is clear that without intervention including housing subsidies, the conventional housing market is unable to fully meet the need for decent and safe housing for all the existing or projected very-low, low-, moderate- and middle-income population. During the planning period, the affordability problem is most likely to increase for all sections of the very low-, low-, moderate-, middle- and low-upper -income sectors.

Success of Past Efforts

The County's policy of supporting non-profit groups developing affordable housing projects has resulted in the development of some exemplary projects over the past 20 years. The number of units produced through these efforts; however, has been much less than needed to meet the needs of even 10 percent of the current population that has not found affordable housing.

Federal and State Affordable Housing Funding Programs

Federal and state affordable housing programs provide funds to build affordable housing, to supplement income of families who cannot find affordable rental housing in the conventional housing market, and to write down loans for purchase of housing. The federal or state funds are normally used to make up the difference between what the housing costs to develop, and what the occupants of the housing can afford to pay, typically based on 30 percent of their gross income from all sources. Subsidies for housing are provided through such devices as the mortgage interest income tax deduction, tax credits for those financing affordable housing, direct payments to organizations constructing or managing affordable housing, provision of housing vouchers to low-income tenants, and a variety of other methods. Community Development Block Grant funding can be used with substantial local flexibility to provide land or infrastructure for housing, or to provide grants or loans for housing rehabilitation. A number of the specific programs that are or could be made available in San Juan County are described in the Housing Needs Assessment.

Most aid programs that involve construction of housing require at least some matching funds from a local agency such as a local government, local housing authority or other local source. If the County can establish a permanent funding source dedicated to affordable housing, the County can increase, potentially by a substantial amount, the amount of housing provided in the County by housing providers.

Ability of Housing Policies and Programs to Meet Housing Needs

By building on the example of these past efforts, and increasing the level of effort through additional funding targeted specifically at very-low, low-, moderate-, middle-, and low-upper-income housing, the County expects to encourage and support the construction of a number of housing units over the next decade that are affordable to very-low, low-, moderate-, middle- and low-upper-income groups.

However, a number of major obstacles remain that indicate that the programs and policies identified will not be able to meet 100 percent of the identified need for very -low, low-, moderate-, middle- and low-upper- income housing. These obstacles include:

- There is a large existing shortage of affordable units for very -low to middle-income households, represented by the estimated 2,078 households in these categories who currently pay more than 30 percent of their income for housing. Meeting this need alone far exceeds the resources that might be available to the County over the next 17 years.
- Projected growth will mean that approximately a minimum of 124 very -low, low-, moderate- and middle-income households will be added to the County's population each year for the next 17 years, adding to the existing need.
- The legal authority for mandatory inclusionary zoning that requires a specific percentage of affordable units in projects with in-lieu fees for those not providing affordable housing is not well established in Washington because of the small number of jurisdictions with such requirements. Inclusionary zoning has limited applicability in San Juan County because of the small size of most
- projects, and the fact that most subdivisions are for lot sales rather than for speculative construction by developers or builders.
- The continuing strong demand for property in the County, based on the high perceived quality of life, and the appeal of the islands as a vacation and seasonal housing area, increases land values to the point that the gap between cost of new housing and ability to pay for very-low, low-, moderate-, middle- and low-upper-income households is almost unbridgeable.
- The reduction in potential development density in rural lands, combined with increasing demand for vacation and retirement homes, substantially increased housing prices approximately 125 percent since 2000 and has reduced the ability of very-low, low-, moderate- and middle-income households to locate in rural areas of the County.

Projecting data from the past several years to 2025, the Housing Needs Assessment found that there is and will be a need in San Juan County for:

1. additional affordable, permanent rental housing;
2. additional affordable permanent owner occupied housing;
3. rehabilitation assistance for substandard housing and conservation of existing low- and moderate-income housing;
4. additional "safe houses" or shelters for victims of domestic violence;
5. housing for the chronically mentally ill;
6. an emergency shelter(s) and transitional housing;
7. housing for seasonal workers;
8. assistance with new home purchase or construction; and

9. assisted living homes.

5.1.C Summary of Building Efficiency

To improve local resiliency, it is increasingly important to improve the efficiency with which our buildings use resources — energy, water, and materials — while reducing building impacts on human health and the environment.

This can be done through better siting, design, construction, operation, maintenance, and removal — the complete building life cycle. We should also be concerned about other building impacts on its surrounding area, such as light pollution and noise, and should balance the benefits of renewable energy facilities with their impact on scenic values and historic resources.

Energy Efficiency and Conservation

Energy is a precious resource. Increasing the efficiency of homes, businesses and county facilities is a priority. Energy efficiency and conservation (EE&C) is the lowest cost form of energy. By reducing energy waste, we reduce the need for energy generation, save money, keep energy dollars local and increase economic resilience. The Northwest Power and Conservation Council, in their 7th Power Plan, estimates that most new energy demand will be met by EE&C. Over 80% of a typical County home or business energy use goes to transportation and heating. State of the art electric transportation and heating are about 400% more efficient that fossil fuel counterparts. There is therefore substantial opportunity to reduce energy consumption and cost through the electrification of transportation and heating.

Public policy and building standards should establish best water conservation practices, including low flush toilets, low flow shower heads, and drip irrigation, at construction time, when implementation cost is lowest.

Water Efficiency and Conservation

As with energy efficiency, water is a precious resource. The efficient use of water in homes, businesses and county facilities is a priority. Public policy and building standards should establish best water conservation practices, including low flush toilets, low flow shower heads, and drip irrigation, at construction time, when implementation cost is lowest.

5.2 OBJECTIVES, GOALS AND POLICIES

5.2.A Objectives

Objectives: (5.2.A 1-4)

1. To make adequate provision for a variety of housing choices in terms of type, cost, size, design, and suitability for various households including families, the elderly, the disabled, and housing for very low-, low-, moderate-, middle- and low-upper-income households while recognizing the unique physical, social, and economic environment of the islands.

2. Maintain the demographic variety of our community by supporting the availability of housing for the very low-, low-, moderate-, middle- and low-upper-income earners in the County.

3. Reinforce where possible and establish where necessary a continuum of care for people with special needs in UGAs and Activity Centers, including emergency housing, transitional housing, assisted living, group homes, senior housing, and very low-income housing.

4. In conjunction with the Town of Friday Harbor, promote the provision of an adequate supply of housing through interjurisdictional and private-public efforts.

5. Encourage use of environmentally sound efficient building techniques and minimize the negative environmental impacts of building and human habitation.

5.2.B Housing Goals

Goals: (5.2.B 1-5)

1. To provide a geographical and regulatory opportunity for the annual construction of the minimum number of needed housing units affordable to very low-, low-, moderate- and middle- income households.

2. To encourage the ongoing maintenance and rehabilitation of existing affordable units and currently substandard units.

3. To encourage the development of mixed income neighborhoods within municipal and non- municipal UGA's and Activity Centers.

4. To encourage the development of densely populated mixed-use districts within the County's UGAs.

5. To encourage the orderly development of required capital facilities and capital facility planning.

5.2.C General Housing Policies

Purpose:

To ensure that housing may be developed within a regulatory environment marked by clearly written standards, including resource efficiency standards, and easily understood expectations backed by an effective, rigorous but adaptable enforcement code.

Policies: (5.2.C 1-9)

1. Promote fair and equal access to housing opportunities for all persons.

2. Ensure that County policies, codes, and regulations do not restrict, prohibit or substantially increase the cost of establishing a variety of housing types including, but not limited to, government assisted housing, housing for low-income families, manufactured housing, multi-family housing, and group homes and foster care facilities; or impede the goals, policies and objectives of this Housing Element.

3. In accordance with the Federal Fair Housing Act, ensure that regulations for residential development do not preclude the siting of household facilities and shelters for special needs populations such as the developmentally disabled, mentally ill, victims of domestic violence, and the elderly.

4. Identify and assess the condition of and facilitate the rehabilitation of existing substandard housing.

5. Provide the most up to date information on critical environmental areas and natural resource lands

to identify potential land development constraints.

6. Identify and address potential mitigation for critical area impacts as early in the permitting process as possible.

7. Refine permitting processes and identify methods to minimize delays in the development process.

8. Research the creation of an impact fee program to fairly offset the cost of new public facilities needed by each new housing unit or business.

9. Encourage and support greater opportunity for the development of innovative housing types, such as residential units in mixed use developments, single family attached, duplexes, triplexes, apartment buildings and multi-care facilities. Encourage clustering in UGAs and Activity Centers.

10. Require higher basic energy standards for new construction and major renovations such as Energy Star Plus certification, and LEED certification for major projects and, as it becomes more affordable and accessible.

11. Owners should be encouraged to incorporate energy efficiency and green building techniques in their buildings, especially when they are carrying out other renovation or expansion projects. This can be done through education and technical assistance, which can provide advice about possible energy savings and the other advantages of efficient building design, and can help with access to materials, products, and expertise.

12. Align public policy and building standards to do EE&C at construction time, when implementation cost is lowest.

13. Review and upgrade policy and building codes/standards to provide incentives for improving the efficiency of homes, and their water systems and energy systems. Efficient water systems including, but not limited to toilets, shower heads, and drip irrigation. Efficient energy systems, including, but not limited to, heat pump space heaters, heat pump water heaters, insulation, air sealing, and weatherization.

5.2.D Policies for Affordable Housing

Purpose:

To ensure that housing is affordable to all income groups through programs targeted at specific income groups or groups with special needs for whom the conventional housing market is unable to deliver sufficient suitable housing to meet the needs of the very-low, low-, moderate- and middle- income population at affordable prices or rents.

Policies (5.2.D.1-25):

1. In order to support affordable housing development, provide, as appropriate, for the sale or lease of appropriate County-owned land for permanently affordable housing development. The County will evaluate the full scope of such development proposals for their ability to meet County objectives.

2. Carry out a study within 24 months of Comprehensive Plan Update adoption to examine the viability of appropriate public land for affordable housing.

3. Actively pursue the County's role in the provision of affordable housing by further studying the potential benefits and harms of a joint San Juan County and Friday Harbor Housing Authority and to offer support for non profit and for profit housing providers.

4. Evaluate and implement, as appropriate, delivery of affordable housing programs through contracting with neighboring jurisdiction's housing authorities, emphasizing programs which require current residency, and local employment.

5. Study the potential of a permanent, voter approved, funding mechanism for Affordable Housing such as levy lid lift, Real Estate Excise tax or through some other means such as impact fees, property taxes, recording fees and revenue bonds.

6. Review, within 24 months of the adoption of this update, all development regulations for UGAs to ensure the regulations that enhance and encourage creation of denser, walking centered communities.

7. Study the possibility of developing 'inclusionary zoning' in some areas of the UGAs.

8. Encourage the development or rehabilitation and adaptation of housing that is responsive to the physical needs of special needs populations such as enhanced building and site plan requirements that emphasize accessibility.

9. Revise and adopt, within 24 months of adoption of this Comprehensive Plan Update, a definition for Short-Term, Long-Term and Permanent-Affordability with corresponding benefits and restrictions determined by housing type.

10. Recognize the importance to low and moderate-income households of housing support services, and support the delivery by County agencies and appropriate non-profit organizations of such

Housing Element 10

programs as emergency assistance, loan counseling, landlord tenant counseling, and credit counseling, to improve the ability of these households to obtain and retain housing.

11. Prioritize programs and projects, when considering funding, that ensure permanently affordable housing, such as through non-profit ownership; or permanent funding sources, such as revolving loan funds.

12. Encourage and support the development and enhancement of utility systems in urban growth areas, Village, Hamlet, MPRs and Residential Activity Centers where appropriate and necessary to eliminate obstacles to development of affordable housing. Such support may include use of housing funds or block grant funds for technical and management assistance, or for construction of facilities.

13. Expand the existing tiered density bonus program to provide further incentives for creating affordable housing. This program includes standards for innovative site planning techniques which minimize road, sewer, water, and other infrastructure costs, and standards to limit adverse impacts of additional density on adjacent properties and uses. This program should also entail a determination of increased densities necessary to make multifamily housing units profitable.

14. Provide opportunities and support for specific standards for locating seasonal and year-round worker housing such as dorms, bunkhouses, hostels, group homes, and other communal living arrangements. Standards should include compliance with all public health codes and measures to mitigate significant negative external impacts these facilities may have on adjacent properties.

15. Provide for a limited number of small-scale rural residential cluster developments of no more than twelve dwelling units each within rural lands, and Village, Hamlet and Residential Activity Centers, where allowed, excluding Resource, Natural and Conservancy designated lands. Establish conditions regarding the allowable number, appropriate location, size, design, spacing, ownership, affordability, and permitted accessory uses in such clusters to ensure that such developments do not adversely affect the rural, natural and agricultural character of these areas.

16. Identify sending and receiving districts of specified development rights as a precursor to the consideration of the creation of a Transfer of Development Rights (TDR) program. When such a program is adopted by the County, support projects and programs that transfer acquired development rights to identified receiving properties for the creation of affordable housing.

17. Develop programs and facilitate collaboration among all the different not–for-profit affordable housing developers to encourage and enhance the conservation of existing decent and safe affordable housing units, including conventional single-family and multi-family housing, manufactured housing, mobile home units, and mobile home parks.

18. Utilize state, federal, and local housing resources and grant programs to the maximum extent possible consistent with the goals and policies of this element.

19. Continue the owner-builder permit program and work to improve the flexibility of this program to enable citizens to construct their own homes.

20. Continue to work with the Washington Department of Revenue to ensure that permanently affordable housing units are assessed at, and are taxed, according to their restricted resale value.

21. Encourage the design, construction and maintenance of quality affordable rental units to serve long term residents of various family sizes and income levels.

22. Provide incentives and guidelines for efficient development patterns that preserve and enhance scenic open space, reduce sprawl and encourage development in activity centers through innovative site planning techniques which minimize road, sewer, water, and other infrastructure costs. Provide standards for cluster developments, small lots and small lot districts, manufactured housing, and planned unit developments.

23. Improve the quality and availability of the County's information on the need for and supply of affordable housing and other housing trends by type, size and location by improving permit intake records and procedures.

24. Allow and encourage the rental of accessory dwelling units on a long-term basis to provide opportunity for affordable housing.

25. Monitor the availability and cost of housing in the County annually to determine if additional public action is necessary to ensure housing affordability for middle-income households. To the extent that a need is identified for affordable middle-income housing which cannot be met in the private housing market, extend affordable housing programs to include middle-income households by expanding the definition of those who qualify for affordable housing to include households with up to 150% of the area's median household income.

Water

Previous Comp Plan Material

See: http://www.sanjuanco.com/DocumentCenter/Home/View/1057

This reviews General Goals and Policies for:

- Public Water Supply
- Stormwater Management
- Fish, Wildlife and Native Habitat
- Agricultural Water Use
- Data Collection Policies

For Water Resources Appendix, see: http://www.sanjuanco.com/DocumentCenter/Home/View/1069

New Comp Plan Material

TBD

Recommended Language

This material is developed by our workgroup.

Suggested Comp Plan Language (From Nora Nickum & Linda Lyshall, and Islands Climate Resilience Steering Committee)

General Goals and Policies

Edits to previous Goal 1: In consideration of Best Available Science, including the most recent climate change projections, protect & manage the quality and quantity of ground and surface water so as to preserve hydrologic systems, designated beneficial uses, and fish and wildlife habitat that rely on fresh water.

Edits to previous Goal 3: Establish coordinated, cost effective programs for monitoring water quality, water quantity and associated habitats and species so that changes can be identified and protection programs modified as necessary, including in the context of climate change impacts.

Edits to general policy 18: In decision making, utilize locally adopted policies and water resource analysis meeting the Best Available Science Standard and including the latest climate change projections from sources like the University of Washington Climate Impacts Group and NOAA.

New general policy: Ensure that all plans consider climate change projections and anticipated impacts such as saltwater intrusion and precipitation change, and incorporate adaptation measures to increase climate resilience and ensure adequate fresh, clean water in the long term. Include climate change information and adaptation measures in all technical assistance programs.

Water Supply Development Policies

Edits to policy 2: Work cooperatively with State agencies to base future water allocations on capacity by watershed, recognizing the following:
• Agricultural resource lands,
• Streams, wetlands, and nearshore habitat,
• Urban growth areas.
• Domestic supply
• Projected changes in climate

4.1.A. Existing Information

Mention sea level rise studies done in San Juan County in recent years.

Stormwater Goals and Policies

Edits to intro language: Soil compaction, altering drainage patterns, and replacing forest with pasture, lawn, driveways, and structures results in less infiltration, more surface runoff, and if not controlled, the discharge of warm, polluted water. Climate change is also increasing the frequency of high-intensity rain events and therefore increasing runoff. As the amount of runoff increases, less water is available for beneficial uses including drinking water.

New policy 4f: 4. Ensure that clearing, grading and stormwater management regulations and enforcement programs take into account projected changes in climate and resulting impacts on stormwater and runoff.

Note: There's a 2009 UW report on climate change impacts on stormwater: http://cses.washington.edu/db/pdf/wacciach9storminfra652.pdf

4.2.D. Fish, Wildlife and Native Habitat

Edits to intro language: The complex geology of the San Juans supports a diverse land cover that, in conjunction with our streams, wetlands and nearshore areas, supports a wide array of plants and animals. Our habitats are small, disconnected, and often rocky, and for many of them protection is either recommended or is required by State or Federal law. Climate change presents additional risks to island habitats and plant and animal species, which only further increases the importance of protection.

4.2.F.Data Collection Goal & Policies

Edits to policy 6: Monitor indicator habitats and organisms associated with fresh water to identify problem areas, establish trends over time, and evaluate the effectiveness of management strategies, including in light of climate change.

Transportation

Previous Comp Plan Material

See: http://www.sanjuanco.com/DocumentCenter/Home/View/1055

Vision:

> *"We have water, land, and air transportation systems commensurate with our island culture. On-island circulation is by means of a system of scenic rural roads with automobile, bicycle and pedestrian ways functioning without conflict. In some places, the roads are unpaved, narrow, and winding, and care is taken to maintain a rustic quality in public signs. Expansion or new construction of basic public transportation facilities occurs only on the basis of demonstrated local public need. Advanced interactive communication systems are encouraged."*

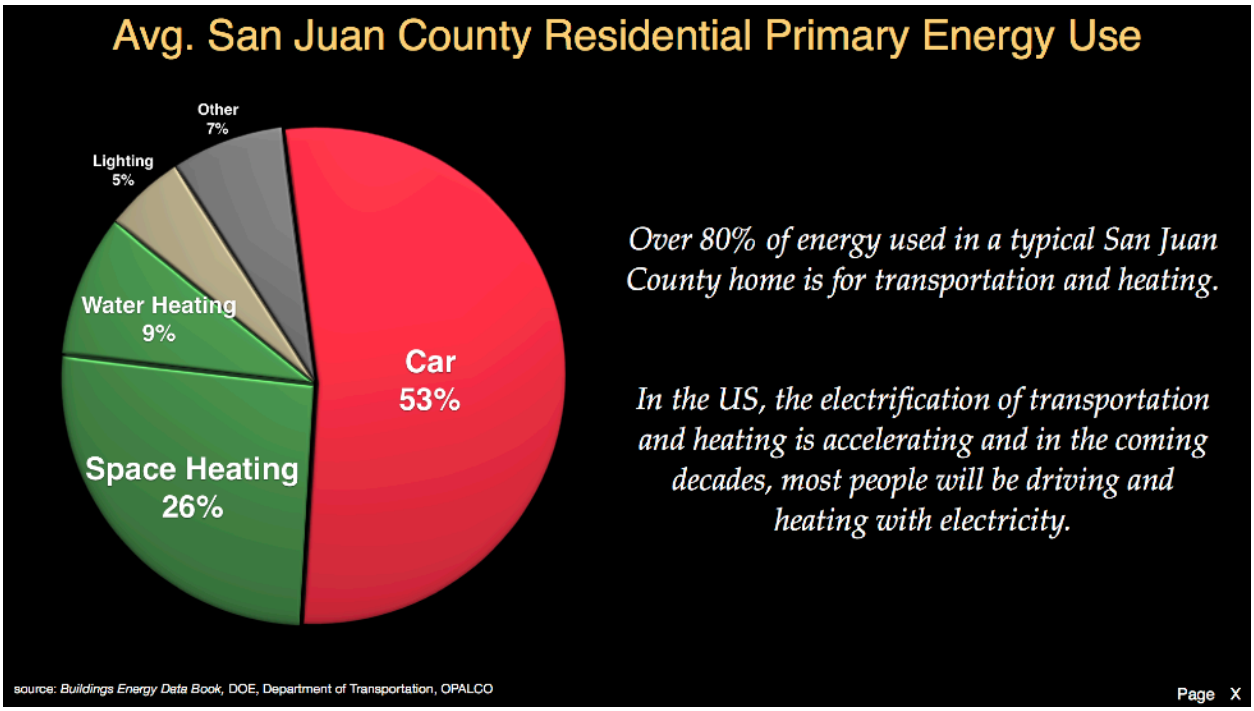
The purpose of the Transportation Element is to establish goals and policies which will guide the development of general, air, marine, and land transportation facilities and services in San Juan County.

Also, for Transportation Appendix, see: http://www.sanjuanco.com/DocumentCenter/Home/View/11005

New Comp Plan Material

Background Narrative

OPALCO estimates that over half the energy use of our predominantly residential county is consumed for transportation. While most of the energy that fuels transportation is fossil, electrification of transportation is underway and accelerating.



OPALCO estimates that transportation is the largest contributor to county carbon footprint, emitting about 26,000 tons of CO2 per year. See chart below.

San Juan County Carbon Footprint: Simplified Estimate

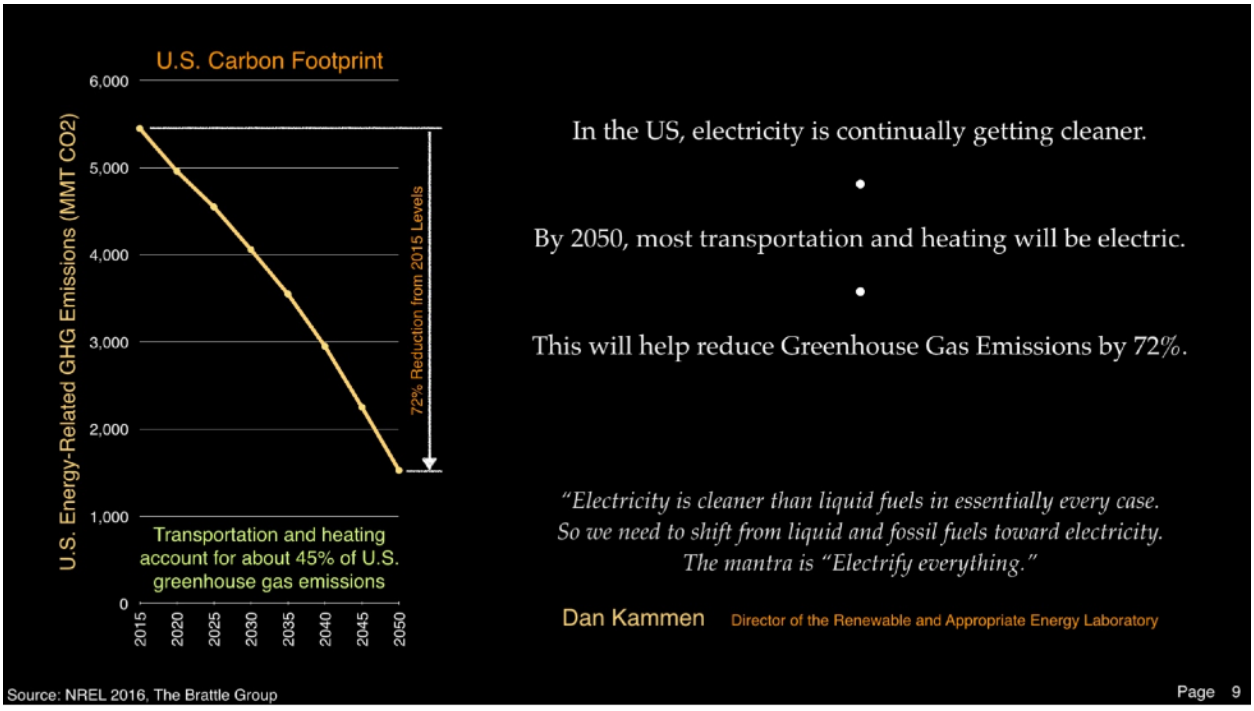
Fuel	Amount Used	CO2 Intensity	Tons CO2	Share
Electricity	215,000,000 kWh	48 - 73 lbsCO2/MWh	7,848	14%
Gasoline	2,700,000 Gallons	8.9×10^{-3} MT/Gal	43,228 T / 26,433	75% / 46%
Propane	1,896,750 Gallons	5.2×10^{-3} MT/Gal	10,849	19%
Wood/Other	1,802 cords	6,600 lbs/cord	5,946	10%
Agriculture			1,718	3%
Waste Treatment/Recycling			4,664	8%
Total			57,458	100%

~3.2 T/person/year

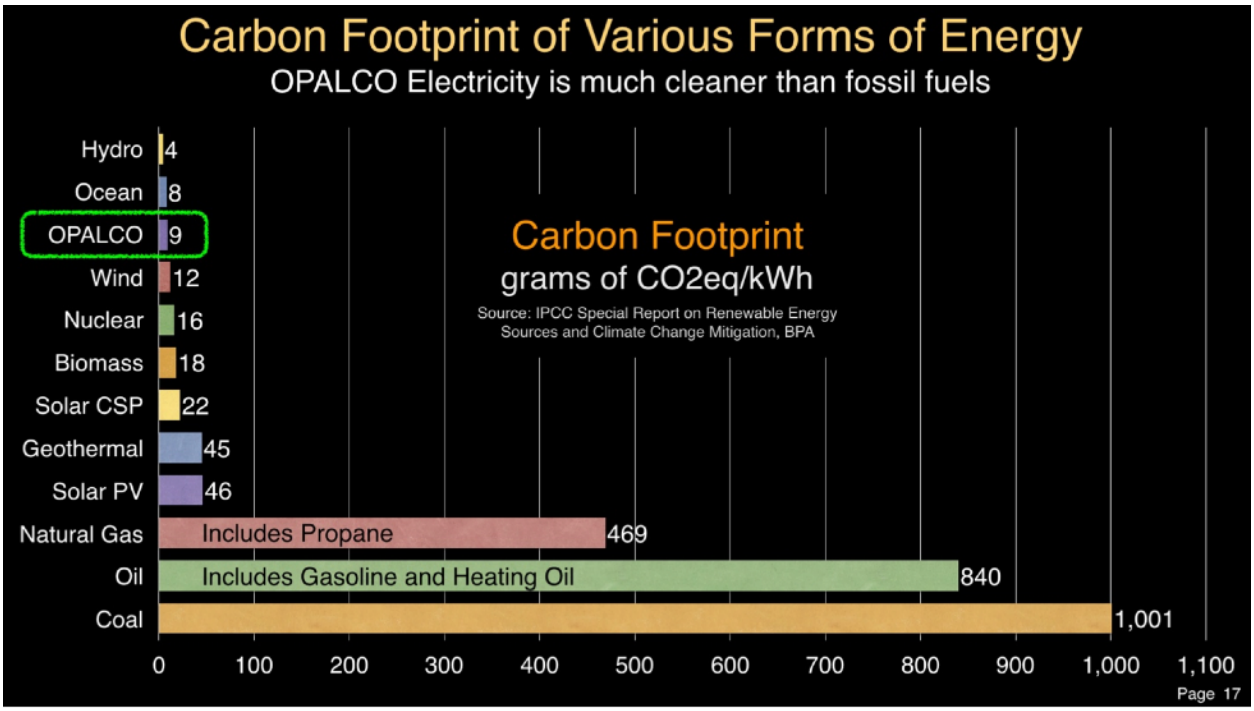
Climate change and the impact on local, regional and global level is catalyzing a remarkable shift in how homes and businesses think about energy.

In OPALCO's service area, by 2035, most transportation will be electric. That's because electric transportation is much more efficient, lower cost, and cleaner than fossil fuels.

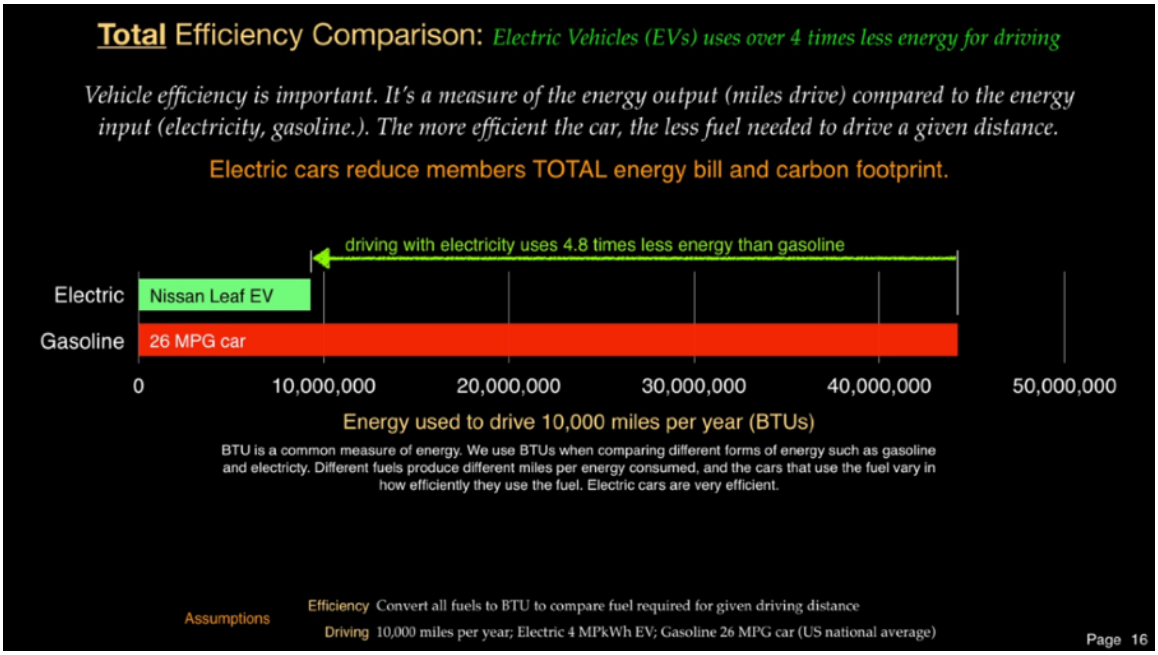
The electrification of transportation is happening across the US. According to estimates from the Brattle Group, US Greenhouse Gas (GHG) Emissions can be reduced by 72% by 2050 due to this electrification of transportation (and heating). See chart below.



In the OPALCO service area, because electricity is largely very clean hydro-based, the GHG emissions reductions would be even more significant. See chart below.



These reductions in energy consumption, cost and carbon footprint are possible due to the very efficient nature of EVs, which are over four times more efficient. See chart below.



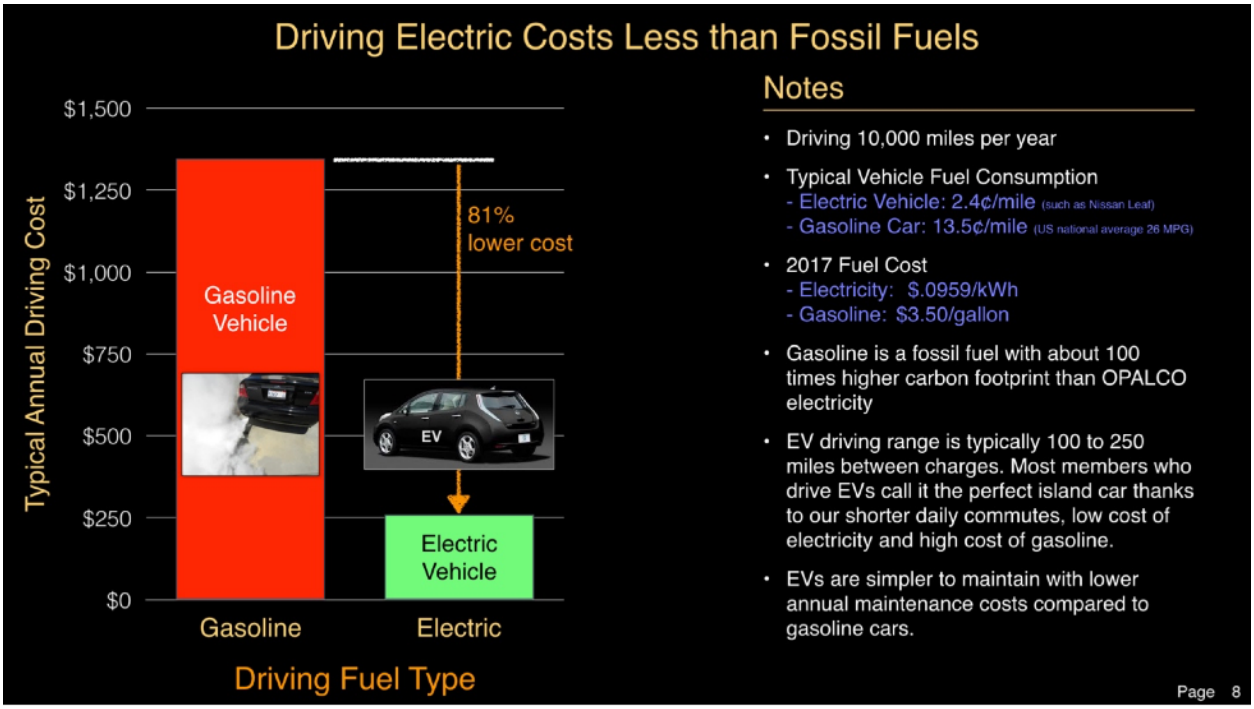
These kinds of cost and emission reductions are important to OPALCO members.

San Juan County is an excellent location for Electric Vehicles (EV). Short driving distances and low speeds make the limited driving range of the EV practical. According to the Washington State Department of Licensing, as of December 2014 there are presently 131 EV registered in the county. EVs grew 55% in 2016 and are projected to account for the bulk of sales by the end of the next decade.

In 2014 OPALCO purchased 214,000,000 kWh(s) of energy from BPA. The portion of that power which was used to charge the 131 EV units registered in San Juan County is estimated to be less than 43,000 kWh's per year. In the load forecast, in 20 years (2035), EV cars may require up to 8,400,000 kWh(s) of

yearly energy. The industry is looking at EV's as a "distributed energy resource". A fleet of 1,000 EV's can be considered as 1,000 25-60kWh [25-60MWh combined capacity] batteries, and the terms EV2G (EV-to-grid) and G2EV (Grid-to-EV) are used to describe the concept and architecture by which EV's can be integrated as both a power and a storage resource.

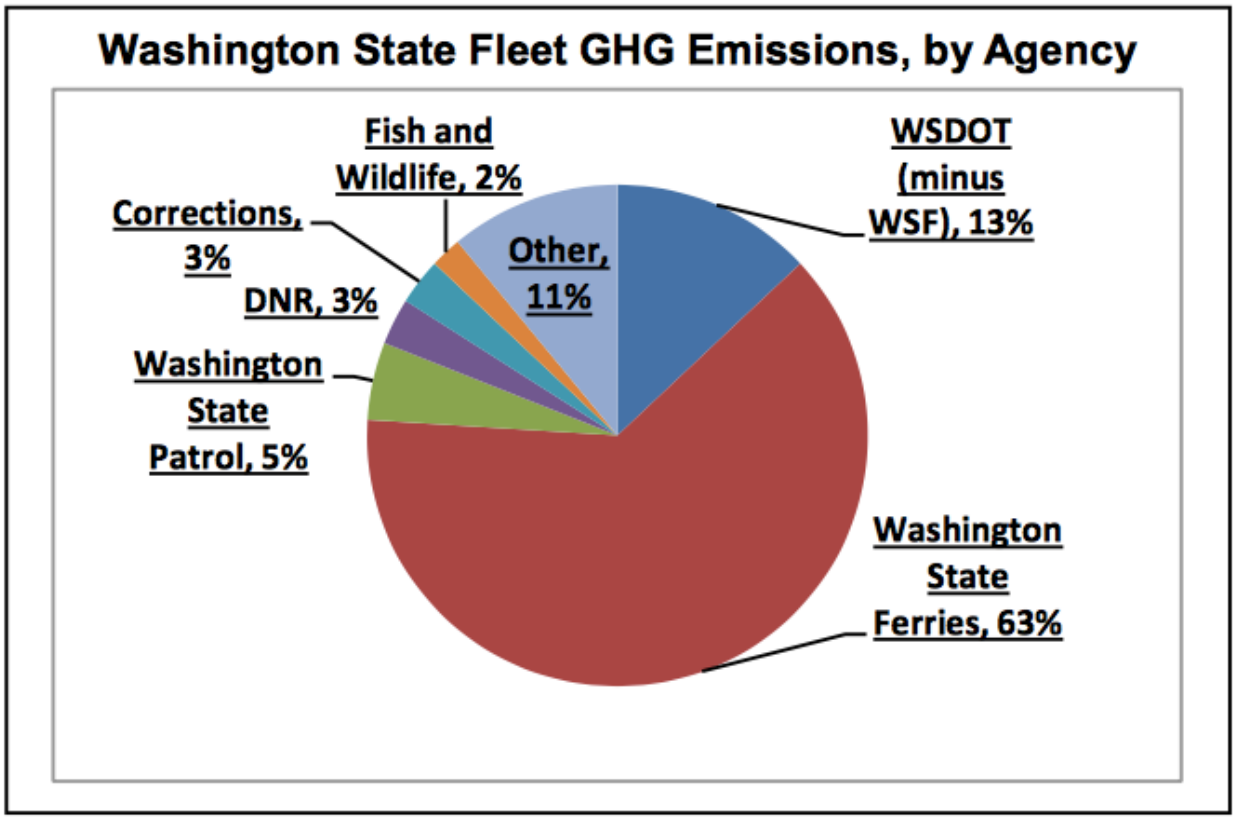
This next chart shows the cost savings for driving, for a typical EV 10,000 mile per year compared to a US average 26 MPG gasoline powered car.



Converting County fleets and home and business vehicles to EVs reduces operational costs and carbon footprint, helping keep dollars in member pockets and the local economy. A typical EV, driven 10,000 miles, costs about $200 in OPALCO electricity versus $1,200 in gasoline, and emits 40 times less carbon.

All forms of transportation increasingly have electric versions available, including cars, vans, trucks, buses, and ferries (see examples below).

Washington State estimates that 63% of greenhouse gas emissions from their fleet, come from the ferry system. There is a substantial opportunity to reduce emissions of the WA fleet through electrification of the ferry fleet.



Material from Friends of San Juan

Streets need to be part of a “Complete Streets” solution—which provides all modes of transportation, including walking and biking, with safe and convenient options for getting around.

Historically, San Juan County’s roads have been designed primarily for motor vehicles. This means that cyclists, pedestrians, and drivers all must do their best to share the winding, narrow-shouldered roads, often with limited sight-lines and high speed limits. This creates an unsafe mix for all involved.

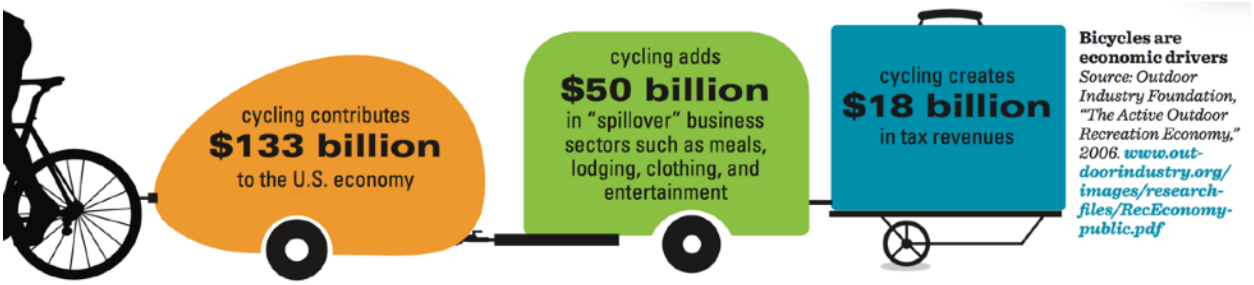
This sense of danger (both perceived and real) reduces people’s motivation to leave the car at home for errands, commuting, and recreating. The lack of safe places to walk and bike can negatively impact our health, environment, economy, and even a sense of connection within neighborhoods.

While some improvements have been made over the years, they have come slowly and irregularly. We hope to change that!

With community members, Friends of the San Juans has been working on a “Complete Streets” ordinance to pitch to the Town and County. Complete Streets ordinances typically direct local governments to consider and implement bicycle, pedestrian, and transit-friendly infrastructure whenever they develop new roads or substantial reconstruction of existing roads.

In San Juan County, these options could look like separated paths, wider shoulders, lower speed limits, or road striping and painting that helps highlight areas of potential traffic conflict. Since 2011, when Washington passed the Complete Streets Act, 86 towns and counties have adopted a Complete Streets policy. In 2012, Ocean Shores, WA was named one of the 10 best Complete Streets communities in the nation. There’s no reason we can’t do it here, too!

Why are so many places adopting Complete Streets ordinances? One practical answer is because it unlocks state funding to help defray infrastructure costs. And, once a town gains a reputation for welcoming cycling and walking, it can see a significant economic boost (see below). Plus, Complete Streets decreases the carbon footprint, offers less expensive and healthier transportation options, and provides greater safety for all.



Bicycles are economic drivers
Source: Outdoor Industry Foundation, “The Active Outdoor Recreation Economy,” 2006. www.outdoorindustry.org/images/research-files/RecEconomy-public.pdf

Other commentary on transportation

Make walking and biking pathways permeable to minimize runoff.

Businesses and towns can increase business and convenience by offering an EV charger and bike stands in the vicinity.

EVs are about 4 times more efficient than fossil fuel cars. Annual driving cost is about $200 in electricity versus $1,200 in gasoline cost. That $1,000 savings helps keep dollars in the local economy, and out of the pockets of fossil fuel companies. It also helps to reduce the counties carbon footprint.

In town-centers, open them up to quiet low energy traffic. Encourage low-carbon traffic by making it most convenient for walking and biking first, and perhaps EV traffic, with fossil fuel parking at perimeter of town-centers.

“Cars rob the streets of their function as a common ground where the sense of community is nurtured.” J.H. Crawford, Car-Free Design Manual




Recommended Language

This material is developed by our workgroup.

Suggested Comp Plan Language (From Todd Nicholson and William Severson)

Establishment of some minimum level of budgetary support for non-motorized routes and mass transit.

Suggested Comp Plan Language (Islands Climate Resilience Steering Committee)

6.4.B Policies related to the Washington State Ferry System

New policy: Encourage the WSF to create and incorporate best practices into ferry services that reduce greenhouse gas emissions, increase recycling and composting rates, and increase the climate resilience of ferry transit to increase the reliability of service in the long term.

6.4.C Policies for County Docks, Barge Landing Sites, Ramps and Associated Parking Areas

New policy: Plan for impacts of sea level rise—and accompanying erosion—when undertaking new construction or conducting repairs and maintenance of docks and associated parking areas.

6.5 Land Transportation Goals and Policies

Edits to Goal 6: To increase education and outreach to improve bicycle and pedestrian safety and healthy lifestyles, and facilitate alternatives to the single-occupant vehicle which conserve energy, reduce greenhouse gas emissions, and reduce reliance on fossil fuels.

Edits to Goal 7: To encourage transit providers to provide and expand low-emissions transportation services that support the needs of local residents and visitors.

6.5.A Policies for Road Classification, Right-of-Way, Design and Construction

New policy under Road Design and Construction: Ensure that County road standards and practices are updated to reflect climate change projections, and that new roads are sited appropriately and protected from sea level rise, increased erosion, storm surge, and other impacts of climate variability and change.

6.5.H Transit Goals and Policies

New goal: To ensure reliable service even in the context of extreme weather events.

New policy: Identify road sections or transit infrastructure assets that may be at risk of flooding, erosion, or other temporary or prolonged damage, incorporating climate change projections into the analysis, and collaborate with transportation partners to identify alternate routes and develop an emergency response plan.

Suggested Comp Plan Language (from OPALCO)

Notes

All edits appear in red. Original Comp Plan language in black.

6.1 INTRODUCTION

6.1.A PURPOSE AND BACKGROUND

The purpose of the Transportation Element is to establish goals and policies which will guide the development of air, marine, and land transportation facilities and services in San Juan County in a manner consistent with the overall goals of the Comprehensive Plan and Vision Statement. It establishes direction for development of regulations for transportation systems and for facilities and transportation improvement programs now and through the year 2030. The goals and policies in the Transportation Element are based upon the community vision, the 2021 travel forecasts and other information provided in Appendix 6, and other applicable transportation plans that address nonmotorized trails development for pedestrians, equestrians and bicyclists.

The Transportation Element is a mandatory planning element under the Growth Management Act (GMA) and was developed in accordance with RCW 36.70A.070(6) to be consistent with and implement the Land Use Element. It is based on a systematic planning approach that considers anticipated growth and transportation demand in planning for future transportation system needs.

The Transportation Element contains the introduction, goals and policies and is based upon the data and analysis provided in Appendix 6, Transportation. Appendix 6, Transportation of this Comprehensive Plan includes inventories of the existing air, marine and land transportation system. A consultant, Transpo Group, evaluated the available population and vehicular data to prepare projected growth rates to 2021 which were used to assess transportation facility and service demand and capacity. The transportation analysis includes a ten-year forecast of impacts to the transportation system and state-owned transportation facilities consistent with land use and growth assumptions. Factors affecting the existing

level of service (LOS) and recommended LOS for the various facilities was presented by Transpo Group in the following series of memos dated June 16, 2010:

- Memo 1 of 3: San Juan County Transportation Element Growth Rates
- Memo 2 of 3: San Juan County Transportation Level of Service Analysis
- Memo 3 of 3: Potential Transportation Level of Service Refinement

The LOS analysis resulted in the recommended level of service standards and identification of long-range planning needs.

Appendix 6 also includes a discussion of nonmotorized transportation, demand management transportation options and intergovernmental coordination. Lastly, it contains an analysis of the County's transportation funding capability and financing options, and a multi-year financing plan for transportation improvement projects.

Additional white papers developed by the Community Development and Planning Department and the Public Works Department were considered during the development of the transportation goals and policies. These papers provided information pertaining to LOS, Washington State Ferries (WSF) LOS, impact fees and concurrency, prioritizing trails with road projects, transportation benefit districts and Regional Transportation Planning Organizations.

Many state and federal transportation regulations and programs require accommodation of or encourage the development of nonmotorized transportation facilities and connections as part of an integrated transportation system. Starting with the federal government and working down to state, regional and county levels, the acceptance of the need to design facilities to accommodate pedestrians, equestrians, bicyclists and hand and wind powered marine vehicles has become a legislative directive for local and county government, including San Juan County.

The provision of a safe and efficient network of pedestrian, equestrian, bicycling, and marine trails has been an important component of the County's multi-modal transportation system for many years. Since 1979, the Transportation Element of the Comprehensive Plan has included direction to accommodate safe use of bicycles and pedestrian pathways. Based on significant public and Parks and Recreation input, two resolutions were passed in the 1990's that sought to develop important bicycle and walking trails.

While the demand for these facilities has been made and recognized repeatedly in the adopted Transportation Plans and the 1999 – 2004 Parks, Recreation and Preserved Lands Plan for San Juan County, residents were historically ambivalent about accommodating bicycles and creating new paths for walking and riding. On one hand, historic surveys showed that many residents yearned for a safer, more tranquil way to get out of their cars. On the other hand, funding and implementation have been challenges for the realization of these plans. To address these issues and to comply with the GMA, the County adopted the 2005 – 2025 Nonmotorized Transportation Plan in 2005 to supplement the County's overall transportation development strategy and Transportation Element.

After extensive community interviews, workshops, surveys, public participation and outreach, the San Juan County Parks, Trails and Natural Areas Plan was adopted in 2010. With updated trail inventories and the strategies, goals, policies, and financial components, it replaces the dated 2005 - 2025 Nonmotorized Transportation Plan and contains the County's newest nonmotorized transportation plans.

The San Juan County Parks, Trails and Natural Areas Plan also contains a new trails classification system (road right-of-way trail, rustic trail and bike trail), and identifies trail corridors for development. It identifies nonmotorized facility funding mechanisms and local financing options. Its' goals and strategies provide a framework that the community can use to meet its vision of providing safe nonmotorized travel on a multi-purpose trail and corridor system designed to provide accessibility to community activities and recreational areas.

The plan is designed to meet the transportation and recreational needs of the community. It is implemented collaboratively by San Juan County Parks and Public Works departments, the San Juan County Land Bank and other partners. It establishes the community's criteria for prioritizing nonmotorized

projects. A long range action plan and project list guides community investment in a variety of trail development projects through the year 2030. In addition, a detailed six-year plan identifies projects and funding sources for trails development in the near term and inclusion on the capital facilities six-year plan. Trail development projects implemented by Public Works in the County road rights-of-way are identified on Public Works' six-year Transportation Improvement Program (TIP).

The 2012 San Juan Islands Scenic Byway Corridor Management Plan also contributes to the Transportation Element. The Plan was prepared by the San Juan Islands Scenic Byway Partnership in accordance with the Federal Highway Administration's National Scenic Byway Program guidelines. It establishes recommended actions for accommodating and managing transportation on the San Juan Islands Scenic Byway. Much of the plan focuses on the promotion and expansion of multi-modal transportation options. This element addresses development of nonmotorized transportation options and informational and promotional programs that would help to preserve, enhance and promote the unique attributes of the San Juan Islands Scenic Byway for islanders and visitors. The anticipated benefits and opportunities expected to result from implementation of the action plan include:

- Protection and preservation of important resources;
- Effective tourism management and stewardship promotion;
- Expanded multi-modal transportation options; and
- Enhanced visitor experience.

Another plan, the 2006 San Juan Islands Trails Plan prepared by the San Juan Island Trails Committee to promote island-wide trail networks provided information for the development of the nonmotorized goals and policies. Other plans, including the 2006 San Juan Islands Trails Plan prepared by the San Juan Island Trails Committee and the Orcas Pathway's Plan provided information for the development of the nonmotorized goals and policies. Currently, the Lopez Island Community Trails Network is developing a plan. The National Park Service has provided technical assistance in the development of these plans through its Rivers, Trails and Conservation Assistance Program.

In addition, another San Juan County plan referenced in the Transportation Element is the 2010 Coordinated Human Services Transportation Plan. This plan built upon community efforts to gain a better understanding of the transportation needs of San Juan County residents (especially low income, elderly and disadvantaged persons) and visitors. It explores potential options for creating a new vision of island travel, awareness of transportation needs and issues, and explores public and private transit coordination and transit funding strategies.

The development of this Transportation Element and related transportation plans have included extensive public participation processes. In addition, the results of the Council on Economic Development's Transportation Summit and subsequent work by the County's Critical Needs Task Force which was organized with the support of the San Juan Community Foundation helped to shape the County's development of recent transportation plans.

Organization

The Element is organized to first outline the overriding goals and objectives for all forms of transportation then provides specific goals and policies for air, marine, and land transportation systems, and intergovernmental and regional coordination. In addition to providing general guidance for action, these policies are designed to assist the County in determining priorities and assigning responsibilities for plan implementation.

The Air Transportation goals and policies address the long-term management of airports, airport-related operations and services, and other air transportation facilities. The Marine Transportation goals and policies address long-term marine transportation services and development of new facilities. The Land Transportation goals and policies address the development and maintenance of land transportation facilities and provide guidance for County decisions on their funding, scheduling, design and construction. Intergovernmental and regional coordination goals address County transportation system development in relation to adjacent jurisdictions, and other counties, regions and entities.

6.1.B Level of Service Standards and Concurrency

Level of Service

One of the principal criteria for identifying needed capital improvements for transportation systems is the establishment of level of service (LOS) standards. LOS standards measure the capacity of capital facilities and services which are necessary to support new development and maintain or enhance the quality of life in the community. The LOS standards adopted by San Juan County are based on the community's values and vision of its future. LOS standards serve as a gauge to judge the performance of the transportation systems and ensure that the community:

- Has set realistic, measurable and attainable transportation goals;
- Accounts for the impacts of growth and development; and
- Makes transportation planning and programming decisions based upon community valued policy direction.

The LOS standards for the San Juan County road transportation systems are based on the physical capacity of the facility or service and development projections.

Concurrency

Consistent with GMA requirements, the County adopted development regulations which prohibit development approval if a development causes the level of service on a transportation facility to decline below the adopted standards unless transportation improvements or strategies to accommodate the impacts of the development are made concurrent with the development.

6.1.C Relationship to Plan Elements, Consistency with Adjacent Jurisdictions and Regional Plan Coordination

Relationship to Plan Elements

This Element was developed to evaluate existing conditions, and to identify future planning needs., It sets out the goals, policies and preferences of the County for maintaining and improving the quality of transportation facilities and services and to guide intergovernmental and regional and international coordination while assuring consistent adherence to the general goals and policies regarding the use and development of land and transportation facilities as expressed in the other elements of the Comprehensive Plan including subarea plans.

Consistency with Plans of Adjacent Jurisdictions and Regions

Intergovernmental, regional and international coordination of plans are addressed in this element including coordinated planning for consistency with jurisdictions with common borders and counties that share common regional issues. The Town of Friday Harbor is the only incorporated city in San Juan County. In 1992, the County and the Town of Friday Harbor jointly adopted Countywide Planning Policies (CPPs) (Resolution No. 120–199 which was updated by the adoption of Ordinance 48-2008).

These policies address the need for consistent and coordinated County and Town comprehensive plans. The CPPs are included as Appendix 2 in this Comprehensive Plan. Consistency between this Comprehensive Plan and the Town of Friday Harbor Comprehensive Plan including Chapter 5, Transportation Element is required by the GMA. San Juan County is not a member of a RTPO; however, the County coordinates with the Whatcom and Skagit-Island RTPOs on regional planning issues.

6.2 GENERAL TRANSPORTATION GOALS AND POLICIES

The general and policies apply to all transportation modes.

6.2.A General Goals:

1. To develop and maintain a safe, reliable, clean, low carbon, economically feasible, locally, regionally and internationally integrated transportation system that reflects the desires and preferences of County

residents, supports economic vitality and preserves the rural character, scenic road way features and aesthetics of island communities and the natural, social, and economic environment of San Juan County.

2. To develop a transportation system that corresponds to and is consistent with patterns of land development envisioned in adopted land use plans and:

a. Addresses the complex transportation demands of current land use patterns and prioritizes service to the Urban Growth Areas, accommodates the needs and priorities of residents and businesses while meeting the basic transportation needs of all islands in the County including non-ferry served islands;

b. Enhances the character of the County as a single community of islands while maintaining the individual character of each island;

c. Directs development of facilities in a manner and at a scale consistent with the capabilities of the site and the community to absorb them and increases the efficiency and safety of existing transportation systems by using demand management strategies to avoid costly capital expenditures;

d. Minimizes noise generated by transportation facilities and travel modes associated with them;

e. Provides a variety of transportation modes including air, marine and land (including nonmotorized transportation options), and provides for efficient intermodal connections;

f. Provides a safe and efficient network of trails for bicyclists, equestrians, pedestrians, nonmotorized marine traffic and encourages nonmotorized transportation as a viable, healthy, non-polluting alternative to single-occupancy vehicles;

g. Supports the promotion and enhancement of tourism, recreation, special events, scenic byway programs and diverse economic activities or opportunities;

h. Facilitates the development of privately and/or publically funded projects to address specific transportation needs and challenges, where appropriate;

i. Promotes modes of transportation and multi-modal connections that support active and healthy communities and mobility for all users;

j. Encourages energy conservation and the use of low impact development techniques when physically and economically feasible in the development of transportation systems and facilities;

k. Encourages development of transit system facilities and services that can reduce the reliance of visitors and residents on single occupancy vehicles;

l. Coordinates transportation and emergency management services planning;

m. Minimizes greenhouse gas emissions generated by transportation facilities and travel modes associated with them;

n. Incentivizes the development of clean electric vehicle (EV) public transportation, including, but not limited to, EV shuttles, buses, and rental car fleets;

o. Incentivizes the development of clean electric vehicle (EV) freight transportation, including, but not limited to, electric tractor trailers for short-haul applications between the mainland and the islands;

p. Facilitates the improvement and convenience of low carbon mass transit and increased car-sharing, cycling, walking and the development of alternative vehicle infrastructure (e.g., charging stations) to reduce greenhouse gas emissions;

q. Encourages businesses to install EV charging stations for the convenience of their customers;

r. Installs convenient multi-EV charging stations in the vicinity of town-centers and ferry terminals, with roof-mounted solar panels augmenting the powering of the charging stations, as part of shelters that shade the EV parking spots;

s. Reimagines town-centers that favor walking and biking over driving, with with car-free zones where feasible, with adjunct parking for EVs, the disabled, and access for delivery vehicles, emphasizing through vehicle circulation patterns around towns rather than through towns; and

t. Developing a system of trails for walking, hiking and biking that connect ferry terminals, town-centers and points of interest.

General Policies (6.2.A.1-8):

1. Promote active citizen participation in the development and implementation of this Element.

2. Recognize the needs and desires of residents of each island in making decisions regarding transportation facilities and their operation for that island.

3. Ensure that consistency with the land use goals and policies adopted in the Comprehensive Plan and Shoreline Master Program is a primary consideration in the evaluation of proposed transportation facilities while encouraging diverse economic opportunities.

4. Anticipate and monitor changes in the use of and demand for transportation facilities while managing development impacts and seeking ways to avert conflicts generated by increases in demands over time.

5. Explore ways to promote transportation modes that may decrease demands for increased automobile traffic capacities on roads and ferries.

6. Prevent the consideration and development of bridges and tunnels between islands and from the mainland.

7. Identify, develop and implement cross border transportation routes in addition to those established by Washington State Ferry Service.

8. Consider the risk of sea level rise in expenditures of public funds for transportation infrastructure.

9. Prepare for and incentivize the electrification of transportation, including, but not limited to cars, trucks, public transportation, and ferries.

6.2.B Transportation Financing Goals and Policies

Section II in Appendix 6 of this Comprehensive Plan addresses transportation financing strategies for the 2012 - 2032 planning period. It also includes an inventory of funding sources and levels for capital projects, an analysis of the County's funding capabilities and a copy of six-year Transportation Improvement Program (TIP) prepared by Public Works. The TIP identifies specific projects and funding sources for both road and nonmotorized projects. Public Works also creates an annual road plan (ARP) that includes the Public Works projects budgeted for and approved by the County Council.

Funding and financing options for rustic and bike (non right-of-way) trail development are addressed in the 2010 San Juan County Parks, Trails and Natural Areas Plan. Trail projects are selected from a 20-year long-range project plan for inclusion on the County's six year capital facilities plan (CFP) and Parks Department budget. Financing goals and policies for transit services and mobility coordination are addressed and prioritized in the 2010 SJC Health and Human Services Coordinated Transportation Plan and implemented through inclusion in the Health and Human Service Department's budget.

As noted above, various County departments share responsibility for transportation planning, prioritizing projects, and managing and developing transportation services and facilities. The following goals and policies are intended to help guide the County as it develops strategies, programs and projects based on community needs, budget capacity and desire.

Goals:

1. To assure that public transportation facilities provided by the County are within the ability of the County to fund.

2. To develop funding, budgeting and operational strategies that can be implemented over the planning period that create sustainable transportation funds, balance expenses with available revenue and preserve appropriate cash reserves.

3. Organize the six-year Plan in two three-year periods. Consideration of needed projects and their design should be managed as follows:

a. Projects should be identified early in the plan period for public discussion and County study of needs and desirability.

b. Public discussion and County study of project design should occur in the later Plan period. The County Council should submit the six-year Plan to the Planning Department and Planning Commission for review and recommendation regarding its relationship to policies and regulations of adopted County plans at least 45 days before the Council is scheduled to adopt it. A copy of the recommendation should be provided to the Public Works Director for comment before Council action.

4. Allocate County road funds in the following order of program priority:

a. Debt service;

b. Maintenance and preservation of County transportation facilities; and

c. Engineering and construction of improvements.

5. Rank County transportation facilities and services that require improvements using a priority rating system which allots additional points for projects financed cooperatively. In addition, the County should

a. Allow County roads to be improved by others with approval from the County Engineer,

b. Cooperatively finance transportation facility and service improvements with land developers. The amount of financial assistance should be based on a proportionate amount of increase in traffic volumes attributable to the development project.

c. Consider forming transportation benefit districts and/or local improvement districts when cumulative land development projects cause transportation problems on County roads or to fund needed transportation improvements.

d. Coordinate efforts with the Town of Friday Harbor for cooperative funding of road improvements within the Town and its urban growth area.

e. Seek to minimize regulatory impediments to investment in commercial transportation facilities by conducting a code review process and making needed code amendments.

6. Require that the estimated cost of providing those public transportation facilities which are the responsibility of the County not exceed conservative estimates of revenues from sources that are available to the County pursuant to current statutes. Conservative estimates need not be the most pessimistic estimate, but cannot exceed the most likely estimate.

7. Have the costs of needed transportation improvements be borne by both existing and future development. For the purposes of this Comprehensive Plan, "existing development" means development which has occurred and "future development" means development which has not yet occurred. Financial responsibilities should be implemented as follows:

a. Existing Development

(1) Financial responsibility includes:

i. transportation improvements that reduce or eliminate existing deficiencies; and

ii. some or all of the replacement of obsolete or worn out facilities, including a portion of the cost of transportation improvements needed by future development.

(2) Sources of funds should be utilized in the following order of priority: state transportation taxes, grants, and real property taxes. User fees, charges for services, and special assessments should only be utilized if all of the above-listed available sources have been exhausted.

b. Future Development

(1) Financial responsibilities include:

i. Providing a fair share of the costs of capital improvements needed to address the impact of future development; and

ii. Providing a portion of the cost of the replacement of obsolete or worn out facilities.

(2) Financial responsibilities do not include payment of impact fees for the portion of any public facility that reduces or eliminates existing deficiencies.

(3) Sources of funds may include, but are not limited to: voluntary contributions for the benefit of any public transportation facility; impact fees (upon adoption of impact fee regulations), capacity fees, dedications of land, provision of public transportation facilities, public or private partnerships and future payment of user fees, charges for services, special assessments and taxes.

(4) Upon completion of construction, "future" development becomes "existing" development, and will contribute to paying the costs of the replacement of obsolete or worn out facilities as described in Policy 7.a, above.

c. Existing and Future Development

The costs of needed transportation improvements may be paid by grants, entitlements or public facilities from other levels of government and independent districts.

8. Revise the Comprehensive Plan to adjust for the lack of such revenues in the event that revenues identified as necessary for the provision of adequate transportation facilities and services are unavailable, in any of the following ways:

a. Reduce the level of service for one or more public transportation facilities;

b. Increase the use of other sources of revenue;

c. Decrease the cost, and possibly the quality of some types of public transportation facilities, while retaining the quantity of the facilities that is inherent in the standard for the adopted level of service;

d. Decrease the demand for and subsequent use of the transportation facilities; or

e. Use a combination of the above alternatives.

9. A portion of the Lodging Tax (or a gasoline carbon tax) will be used to fund transportation charger networks, ferry charging facilities, walking and bike paths, and other clean transportation initiatives that help reduce greenhouse gas emissions and encourage visitors.

6.2.C General Level of Service (LOS) Goal and Policies

Goal:

To ensure that those public transportation facilities and services necessary to support development including, but not limited to roads, trails and docks are 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.

Policies (6.2.C.1-5):

1. Assign LOS standards to provide a basis upon which to evaluate public transportation facilities adequacy which over-time are measurable, understandable, and appropriate to the services and/or facilities being considered.

2. Identify transportation LOS standards and response mechanisms which balance the need for the facility or service with the possible environmental, economic and aesthetic impacts of those facilities and services.

3. Establish a monitoring program for transportation LOS, in which the Public Works Department will annually evaluate demand and capacity of transportation concurrency facilities and other components of transportation management, and will work cooperatively with the Planning Department to review on a three-year basis the consistency of the six-year transportation facilities plan with this Comprehensive Plan and the Growth Management Act. This monitoring program should include cooperation with the Town of Friday Harbor to analyze the correlation between traffic volume increases on County roads and on town streets.

4. Require concurrency in accordance with the goals and policies of this Element. For the purposes of this Element, "concurrent with development" means that improvements or strategies are in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within six years.

5. Encourage County departments to work together and coordinate with other jurisdictions to develop a comprehensive level of service standard that includes nonmotorized and transit services.

6.2.D Communications and Information Technology Goals and Policies

Goal:

To encourage the use of communications and intelligent systems technology to support diverse economic opportunities, facilitate remote work and telecommuting, manage transportation system demands, improve accessibility to services, meetings and work, promote energy conservation, reduce peak-period travel, congestion and reliance on single-occupancy vehicle travel, and the need to provide additional transportation facilities, such as roads, parking and ferry service.

Policies (6.2.D.1-7):

1. Promote the use of communications meetings and commuting to work to alleviate the need for additional traditional transportation facilities.

2. Evaluate County operations to identify opportunities for enhanced use of telecommuting and teleconferencing.

3. Encourage the development of county-wide high speed broadband service with priority in the Urban Growth areas, Town of Friday Harbor and business centers.

4. Encourage and support the development of, or expansion of the County's data networking infrastructure to minimize reliance on vehicular travel.

5. Coordinate with local libraries, Skagit Valley College and other entities to share communication resources.

6. Promote the use of social media, web based applications, intelligent transportation system development and state transportation websites to provide information on transportation system scheduling, real time data, trip reduction, ride sharing and nonmotorized travel options.

7. Utilize broadband technology and information systems to help create markets for locally produced agriculture, trade, manufactured and intellectual goods or services.

6.2.E Materials Transport Goals and Policies

Goal:

To limit activities which encourage the external and internal transportation of hazardous materials or dangerous good in a frequency or manner which could compromise the public health and safety or water quality, and to protect the economy, environment and citizens by minimizing and mitigating the risks of hazardous materials, dangerous goods and/or fossil fuel spills.

Policies (6.2.E.1-6):

1. Support strategies that address the risk of major fossil fuels and/or material spills that could occur with increases in transport vessel traffic.

2. Discourage the construction of fossil fuels trans-shipment facilities or other facilities and pipelines through San Juan County or its waters that would compromise San Juan County's economy, public health, safety, or water quality.

3. Ensure that transportation of hazardous materials or dangerous goods generated or used within the County will meet established state and federal guidelines and oppose the transportation of other hazardous materials or dangerous goods that could endanger San Juan County's economy, public health, safety or water quality.

4. Improve the level of emergency preparedness for fossil fuel and material spills and other disasters by working with state, federal and Canadian entities to develop and improve training and emergency response plans, promote the location of response equipment in San Juan County, and the use of Best Achievable Protection Methods and Best Achievable Technologies.

5. Encourage responsible parties to locate spill response resources in San Juan County and to be prepared to respond to material spills in waters surrounding San Juan County.

6. Advocate for the assignment of permit conditions on bulk shipping facility development project permits to guarantee the mitigation of all potential impacts from accidents that could adversely affect San Juan County's economy, public health and safety, water quality and fish and/or wildlife habitat.

6.3 AIR TRANSPORTATION GOALS AND POLICIES

An inventory of aviation facilities and services and presentation of long-range planning needs is provided in Section A of Appendix 6 of this Comprehensive Plan. The following goals and policies apply to land and sea based transportation facilities and services.

6.3.A Goals:

1. To recognize the importance of public air transportation facilities to island commerce as well as to mobility of island residents.

2. To promote optimum compatibility between air transportation facilities and services and other land uses in a manner that minimizes the impacts of airstrip, airfield, and airport use while maintaining adequate, safe, efficient, and convenient service.

3. To explore the establishment of new ports of entry in the Eastsound and Lopez Village Urban Growth Areas.

Policies (6.3.A.1-5):

1. Coordinate with the WSDOT Aviation Division, FAA and port districts to provide and maintain air transportation facilities and services which:

a. Serve the needs of island residents and visitors;

b. Are planned consistent with the County's adopted land use goals and policies and that are developed through cooperation, consultation and participation with port districts, and airport operators, owners, users and the public; and

c. Are consistent with state, regional and international air transportation plans.

2. Foster recognition by pilots and other airport users of their roles in minimizing air traffic safety hazards, noise, and other immediate impacts of airport activities on surrounding land uses. Cooperate with the port districts and solicit participation from airport operators, owners, and users, and the public, in anticipating and responding to land use, safety and noise concerns.

3. Moderate impacts of facilities for aircraft uses and facility expansion by:

a. Applying adopted policies and regulations and the permit systems established in land use plans to private airstrips and airfields as well as to public airports;

b. Coordinating with the FAA, WSDOT Aviation Division, port districts and airport operators to consider airport overlay districts and airport master plans and layout plans for public airports;

c. Encouraging consideration of the effects of noise, light, vibration, fumes and the perception of low flying aircraft; and

d. Ensuring that location-specific standards for airports will identify and prohibit the siting of incompatible uses adjacent to them.

4. Consider seaplane use during review of County shoreline permits for docks, marinas and port developments. The following should be considered for seaplane landing sites:

a. Give preference to location of landing sites for regular commercial seaplane service within public or private marinas or established port areas.

b. Consider flight patterns with regard to noise and navigation impacts in granting shoreline permits for docks for seaplane use associated with residential or commercial use.

5. Work to ensure that all existing public use airports including land and sea bases are identified as essential public facilities.

6.4 MARINE TRANSPORTATION GOALS AND POLICIES

Marine transportation includes the Washington State Ferry System (WSF) services and facilities, County docks, barge landings sites, ramps, public mooring buoys, log dumps common landing areas, international transportation routes, facilities to support hand and wind powered vessels and associated parking areas, and private marine transportation services. The following goals and policies apply to marine transportation facilities and services which are inventoried and analyzed in Section 1.B of Appendix 6 of this Comprehensive Plan. These goals and policies express the desires of County residents for actions by the County, WSF and private service providers for the creation, operation maintenance and evaluation of marine transportation systems. Policies stated here provide direction for County coordination with WSF on operations, review of updates to the WSF Division Long-Range Plan, legislative priorities, and for action on applicable development proposals. They also provide direction for the development of, and investment in County operated marine transportation facilities including County docks, barge landings sites, ramps, public mooring buoys, log dump facilities and associated parking areas.

Goals:

1. To recognize that marine transportation systems are essential facilities that provide critical functions in maintaining the quality, safety and character of life in San Juan County and that play a vital role in driving economic development and tourism in island communities and providing a major draw for State tourism.

2. To recognize the environmental, economic, and social conditions of the islands as primary factors in the management of transportation facilities and services.

3. To establish LOS standards and encourage the use of demand management strategies to contain capital expenditures.

4. To promote state transportation plans that would provide long-term sustainable funding of state ferry routes that link the County to the mainland and Canada.

5. To enhance the County's working relationship with the WSF and other transportation providers.
6. To inform the WSF and other state entities of the travelling needs of County residents and propose priority solutions.
7. To encourage the development of public and private sector marine transportation services and facilities that improve multi-modal transportation options and connectivity.
8. To increase marine traffic to Eastsound Urban Growth Area and the Lopez Village.
9. To provide public dock facilities on Shaw Island and other outer islands, if necessary.

6.4.A General Policies (6.4.A.1-10):

1. Encourage appropriate funding, design and development of facilities and services which:

a. Serve the needs of island residents and visitors;

b. Ensure the preservation of rural island character, environmental quality, economic development, and island identities;

c. Provide better access to and among the islands served by County roads, docks, barge landing sites and ramps;

d. Provide parking and dock facilities on ferry-served islands to meet the needs of outer island residents; and

e. Encourage the development of privately owned and operated passenger-only ferries that would provide transportation between the County islands and mainland and Canadian destinations.

2. Establish and maintain a minimum of one barge landing site and facility when essential to the public wellbeing on each island, particularly non-ferry served islands, to address the special freight mobility needs of agriculture, forestry and other essential island businesses.

3. Support the development of one log dump on each island if needed to address the freight mobility needs of the forestry industry.

4. Consider the need for alternative modes of transportation such as private marine passenger-only service and barges and encourage the development of direct connections to mainland intermodal transportation hubs.

5. Promote planning for and the development of intermodal connections between marine transportation services and facilities and land based transportation systems to improve mobility and accessibility.

6. Update, gather and interpret data on the use characteristics of marine transportation facilities and services to measure changes in level of service, and design and implement demand management strategies as needed.

7. Support improvements to marine transportation facilities and services that address the non-peak period needs of residents, businesses and visitors to improve the economic and social quality of island life.

8. Encourage delivery of an optimum state of ferry service for County residents and the business community at maximum efficiency and lowest cost.

9. Prohibit use of personal watercraft such as jet skis in the waters around and in San Juan County.

10. Consider direct marine access or expanded transportation service facilities in Eastsound, Lopez Village, Shaw, Waldron and other additional islands.

11. Support the electrification of marine transport with adequate charging facilities and access to the electric grid.

6.4.B Policies Related to the Washington State Ferry System. (6.4.B.1-18):

San Juan County is highly dependent upon transportation services and facilities provided by the Washington State Department of Transportation Ferries Division (WSF). The Washington State ferry system is the State highway for the San Juan Islands. Ferry service is the primary mode of transportation to the mainland and the mainstay of social and economic life. Coordination with the WSF and other state entities is integral to maintaining an efficient system of moving people, goods and freight. Moreover, the ferry system is essential in meeting special transportation needs of residents, businesses, social services, schools and other public institutions. It also plays a critical role in maintaining and enhancing state and local tourism sectors.

The County Council established the San Juan County Ferries Advisory Committee (FAC) under the requirements of RCW 47.60.310 and SJCC 2.44 to work with the WSF to address community needs related to ferry schedules, customer problems and regional issues. The FAC obtains community input on ferry service issues, advises the WSF on those issues, and provides the County Council with information on the condition of facilities, and service and operational matters affecting the San Juan Islands service area. These issues pertain to safety, tariffs, service, scheduling, economic vitality, vessel allocation, terminal facility adequacy and vessel maintenance.

With the help of the FAC, the County identifies solutions to on-going funding and service challenges and promotes improvements in the ferry system through interactions with the WSF, the Washington State Transportation Commission and the State legislature.

Policies (6.4.B.1-18):

1. Consider the following primary factors while planning and developing marine transportation systems:

a. Existing marine terminal facilities and connecting roads are components of the marine transportation system and have significant physical constraints which must be considered in planning for changes to marine facilities and services.

b. Transportation facilities and activities can have significant direct and indirect impacts on land use and circulation patterns and the economic vitality of the community.

c. Cost-effective and time-efficient ferry transportation is essential to island commerce.

d. The County and the State of Washington have separate but complementary responsibilities for inter-island marine transportation.

e. Washington State ferry routes are the primary economic routes for San Juan County.

2. Work with the state and federal government to encourage:

a. The long-term, sustainable funding of WSF service levels and capital funding for on-going ferry construction needed to replace the aging fleet;

b. The construction of a second ferry terminal slip with vehicle access in the Town of Friday Harbor to improve efficiency, scheduling flexibility and serve as a back-up slip;

c. The dedication of funding needed to construct a commuter parking lot near the Friday Harbor and Orcas Island ferry terminals including priority funding to expedite development of a lot on Department of Transportation property located in Orcas Village; and

d. The dedication of funding needed to improve off-loading of passengers and vehicles especially at the terminal located in the Town of Friday Harbor.

3. Support the work of the FAC in collecting and interpreting data, gathering community input and providing recommendations to the County Council on ferry service improvement issues requiring coordination with the WSF and the Washington Transportation Commission.

4. Support a local public review process conducted by WSF that seeks comments regarding potential modifications to its administration of the adopted preferential loading policies identified in WAC 468–300–

700. This review process should include, but not necessarily be limited to, the Ferry Advisory Committee. The County should support operations and procedures for processing requests for preferential loading which reflect local needs.

5. Submit requests to modify WAC 468–300–700 pertaining to preferential ferry loading to the FAC who will coordinate with WSF. The FAC should review and make recommendations on each request to the San Juan County Council. The Council should make any formal recommendation to amend WAC 468–300–700 to the Washington State Transportation Commission.

6. Coordinate with WSF, other regional transportation systems entities, and community transportation partners and providers to promote non-vehicular traffic on ferries to spread demand and moderate increased demands on terminal facilities and County roads. To accomplish this, the County should encourage WSF to:

a. Work with the County and Town to provide traffic control support near The Town of Friday Harbor ferry terminal and near and around the Orcas parking lot and County road ferry queue;

b. Consider the impacts of proposed service and facility improvements on traffic circulation at island terminals and on County roads and Town streets;

c. Solicit resources to improve schedules and transit connections at ferry terminals and coordinating with Skagit Transit and other transit providers; and

d. Promote development of improved pedestrian and bike access at terminals to encourage walk- ons.

7. Coordinate with WSF to adjust operational practices such as improving the use of information technology to mitigate adverse impacts on safe traffic circulation and safety on island roads. The County should encourage WSF to:

a. Promote operational and/or scheduling changes in preference to expanding terminal facilities;

b. Provide ferry boats in a vessel class that meet the needs of the County, but avoid increasing the size of ferries beyond vessels of the super class size (160 vehicles) due to congestion and limited capacities of terminal facilities unless mitigation strategies are employed;

c. Separate the unloading of bicyclists and pedestrians from motor vehicles at island terminals;

d. Provide information regarding ferry and land transportation schedules at ferry terminals, on fixed displays regarding scheduled services and costs and on adjustable displays providing current information on ferry operations, (e.g., overload status) and multimodal and transit options;

e. Enhance user information by developing updated and new social media and mobile information regarding ferry schedules, reservations, overloads, wait-times parking capacity; and

f. Work with the state legislature and WSF to add one additional ferry to the San Juan summer schedule to service seasonal demand.

8. Encourage the WSF to coordinate with the County and other parties when passenger ferry terminals or transfer floats are proposed by other parties, and on the preservation, expansion or improvement of all terminal facilities consistent with County and Town of Friday Harbor land-use plans including consideration of circulation patterns, potential public transit system connections and public shoreline access.

9. Identify community needs and desires, and encourage refinements in the ferry level of service, its methodology and standards and response mechanisms to ferry capacity and service issues.

10. Adopt WSF's level of service standard, Level 2 for ferry service which is based upon the daily percent of sailings at full vehicle capacity and is fully described in Section B of Appendix 6 of this Comprehensive Plan. Level 2 LOS indicates whether or not ferry assets are being used efficiently and when the LOS is exceeded, additional investment would be considered.

11. Adopt WSF LOS Level 2 for ferry service for consistency with the WSF 2030 Long-Range Plan although the WSDOT does not identify the Anacortes to San Juan Islands ferry route as a highway of statewide significance and concurrency requirements are not mandated.

12. Work with the WSF and other transportation providers to implement demand management strategies outlined in the WSF 2030 Long-Range Plan and other local plans addressing non- motorized transportation and take the following steps:

a. Re-evaluate the ferry LOS standard to determine if changes in available data, suggest that revisions of the LOS standards are appropriate. If changes are appropriate, amend this Element to revise the level of service standards.

b. Work with WSF, the Town of Friday Harbor and other entities to consider and implement adaptive demand management strategies designed to address increases in peak demand and improve the operation and efficiency of the ferry system. These strategies may include, but are not limited to those outlined in the WSF 2030 Long-Range Plan and identified by the County, including taking steps to:

(1) Shift the demand from vehicle traffic to non-vehicular traffic, implement a vehicle reservation system, ride-sharing programs, improve passenger and pedestrian handling capabilities at terminals, enhance public transit scheduling and real time connection information, expand park and ride capabilities, decentralize parking or other parking improvements, improve pedestrian and bike connections, provide new loading/facilities and new/expanded services.

(2) Promote alternative modes of transportation such as private ferry systems, barges, air transportation, passenger-only service especially the location of a passenger ferry terminal at Bellingham which offer substantial benefits to island residents and, by encouraging passenger traffic, could reduce need for expanded vehicle terminal facilities in the islands, etc.

(3) Work with WSF to establish a reservation system that will enable users to obtain assured ferry space and that best meets the needs of residents, commercial enterprises, and other users, and supports economic development.

(4) Optimize fare collection techniques and explore fare pricing options for different customer types, including fares that address the needs of local residents, frequent users, visitors, and off-peak, off-capacity and promotional fares.

(5) Explore targeted, route-specific strategies to reduce traffic flow and smooth queuing congestion at terminals such as new traffic and dock space management techniques, parking, holding, and scheduling methods, use of enhanced electronic and mobile user information applications and fare collection strategies that provide better customer service.

(6) Support data gathering and interpretation that provides real information on which to base ferry operation and scheduling decisions.

(7) Promote and market the use of non-single occupancy vehicles combined with transit enhancements.

(8) Market tourism events and programs during times of greater ferry capacity and supporting promotional fares to spread demand to non-capacity sailings.

13. Take the following steps if ferry service falls below LOS 2:

a. Re-evaluate the LOS standard to determine if changes in available data indicate that ferry assets are being used most effectively and recommend that WSF move towards further system investments.

b. Evaluate the goals and policies contained in the Land Use Element and Shoreline Master Program that affect the rate and amount of residential, commercial, recreational, and industrial growth allowed.

14. Evaluate development for impacts to ferry service and terminal parking through the SEPA process except for single-family residential proposals and other development proposals that do not require SEPA.

15. Work with WSF to evaluate the effects that demand management strategies from the WSF 2030 on ferry terminal parking issues and work together to consider the costs, benefits, environmental and land impacts associated with the creation of additional parking capacity located either on-site at the ferry terminal or at remote locations if demand management strategies are not effective in reducing parking congestion issues.

16. Work with WSF to develop a meaningful LOS standard for ferry terminal parking that could be used to more effectively gauge the adequacy of ferry terminal parking.

17. Support public and private transit and other multi-modal transportation system opportunities that promote non-vehicular ferry trips and reduce the need for terminal parking.

18. Encourage WSF and the State to secure funding to construct adequate commuter or short-term (1-3 days) parking areas at all ferry-served terminals as needed after demand management strategies have been implemented.

19. Support the electrification of the ferry system with adequate charging facilities and access to the electric grid at all ferry terminals

6.4.C Policies for County Docks, Barge Landing Sites, Ramps and Associated Parking Areas (6.4.C.1- 10):

Public marine facilities serve as extensions of the County road system, provide access for kayaks and other boats, create access to popular water trails and recreation areas, are essential components of a thriving economy and are a significant element of the transportation system in an island community. Appendix 6, Section I.B.4.c of this Comprehensive Plan provides an analysis of LOS for County docks. Tables 7 and 8 in Appendix 6 provide detailed dock inventories and LOS information for three types of docks and dock service areas in the County.

Type 1 docks are located on ferry-served islands and provide primary access for non-ferry served islands. Type 2 docks are located on non-ferry served islands that have County roads. Type 3 docks serve recreational uses or provide access between ferry-served islands. Appendix A indicates that the current LOS for Types 1, 2 and 3 docks are C, D and F based upon lineal feet per seasonally adjusted dwelling unit in a service area. This measurement has not been found to be significantly useful and warrants an investigation of alternative methods of determining LOS standards for docks.

The availability of sufficient barge landing sites and storage areas and their safe use and development will be needed through the planning period to accommodate business development and road building especially if materials for road building must come from off-island providers. Barge landing sites are also critical for emergency situations.

Policies (6.4.C.1-9):

1. County and state responsibilities for inter-island services and docks, barge landing sites, ramps and their associated parking area facilities differ but should be coordinated. The County should:

a. Work with the port districts, island communities, and WSF when applicable to coordinate the planning, development, and maintenance of docks, barge landing sites, ramps and associated parking areas.

b. Provide public docks, barge landing sites, ramps and parking areas as essential public facilities and a components of the County road system that are available for public use to facilitate inter- island transport of goods and people and coordinate these facilities with potential passenger- only ferry service operations. Support development of one barge landing site per island when consistent with the Shoreline Master Program.

c. Place emphasis on first providing adequate load/unload space, and secondly on short-term tie up space. Overnight moorage for recreational use should not be allowed until a feasibility study is conducted that includes an analysis of individual dock usage characteristics, costs and benefits, strategies to minimize user conflicts, implementation and enforcement measures, and a pilot program has been implemented and assessed.

d. Include freight lifting equipment where necessary or appropriate to facilitate.

e. Encourage WSF to install load/unload floats or reasonable alternatives to them at all ferry terminals, including the Anacortes terminal, to enhance inter-island travel and promote efficient and convenient use of passenger-only ferry service.

f. Work with developers of small boat docks (load/unload floats) at ferry terminals designed to improve access to the terminals from islands not served by ferries.

g. Work with the local utilities to improve service to all marine locations where possible.

2. Locate County docks and ramps only on islands served by County roads. Barge landing sites should be located as needed. Preference should be given to locations where public shoreline access is available and where there is adequate parking space to serve the type of use anticipated. Potential connection to public vehicular transport should also be considered in establishing dock, ramp and barge landing site locations. Prioritize the use of existing County owned or private barge landings. Limit barge landings in critical areas unless no other option is viable.

3. Prioritize County dock projects as follows:

a. Modifications and maintenance necessary for the safe usage of existing Type 2 County Docks. Type 2 County Docks are those County docks located on non-ferry served islands;

b. Modifications and maintenance necessary for the safe usage of existing Type 1 County Docks. Type 1 County Docks are those County docks, located on ferry-served islands, which provide primary access to ferry-served islands from non-ferry served islands;

c. Modifications and maintenance necessary for the safe usage of existing Type 3 County Docks. Type 3 County Docks are those County docks located on ferry-served islands which are primarily used for recreational purposes or are used for access between ferry-served islands.;

d. New Type 1 County docks within service areas which have no existing County dock pursuant to the LOS policies for County docks;

e. Capacity improvements to existing Type 1 County docks pursuant to the LOS policies for County docks;

f. New Type 2 County docks within service areas which have no existing County dock pursuant to the LOS policies for County docks;

g. Capacity improvements to existing Type 2 County docks pursuant to the LOS policies for County docks; and

h. New or improved Type 3 County docks.

4. Establish LOS C as adequate for existing and new Type 1 County docks and LOS D as adequate for existing and new Type 2 County docks. Dock level of service is addressed in section B.4 of Appendix 6 of this Comprehensive Plan.

5. For islands and locations where no County dock currently exists, establish LOS F as adequate. Annually evaluate demand and capacity of County docks, and review the LOS standards and capital needs every three years as part of the development of the six-year transportation facilities plan.

6. When the level of service for existing and new County docks falls below the LOS standards in Policy 4, above, initiate the following response mechanisms:

a. Re-evaluate the LOS standard to determine if changes in available data, and/or community needs or desires, make modification of the LOS standards appropriate; and/or re-evaluate the defined service areas to determine if they still accurately reflect the majority of the users. If changes are appropriate, amend this Element to revise the LOS standards. Identification of how new data, changes in community needs or desires, or changes in the designated service areas make changes appropriate should accompany any proposal to amend this Element.

b. Evaluate alternative means of increasing capacity or decreasing demand. Include in the evaluation the costs, benefits, and environmental impacts of expanding the existing dock(s), leasing facilities, requiring new development to provide access at private joint moorage facilities, or adding additional public docks to serve the service area(s).

c. Implement an appropriate mix of capacity improvements and/or demand management strategies to bring the service back to a level identified as adequate by this Element.

7. Adopt and enforce concurrency standards which would prohibit development approval if it can be shown that the development would causes the level of service for Type 1 and Type 2 County docks to decline below the standards adopted in Policy 4, above, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. Transportation improvements or strategies may include, but are not limited to those identified in Policy 6 above.

8. Provide parking at Type 1 County docks where appropriate and necessary. In general, the number of spaces to be provided should be based on the number of dwelling units in the service area or the more detailed parking utilization study proposed in item 10 below.

9. Complete a dock utilization study which considers the availability of private and public dock space and other dock use characteristics including typical dwell time, useable dock space, peak period use, dock parking amenities, the percentage of non-resident users and other pertinent factors. Use the study results to revise the dock LOS methodology and standards and to and to consider the adoption of a dock parking LOS.

6.5 LAND TRANSPORTATION GOALS AND POLICIES

Land transportation facilities and services are inventoried and analyzed in Appendix 6, Section I.C of this Comprehensive Plan. This Element addresses public and private roads, bridges, parking, nonmotorized transportation facilities such as trails for bicyclists, pedestrians and equestrians, mopeds, and transit service. Levels of service standards for County roads are established in Section I.C.1.b in Appendix 6 of this Comprehensive Plan.

Goals:

1. To maintain a road and trail planning and improvement system that corresponds to land development goals and policies expressed in the Land Use Element of this Comprehensive Plan, its subarea plans.

2. To maintain a public road system that is as safe and efficient as possible while recognizing the importance of conserving environmental and scenic qualities of island roads.

3. To facilitate diverse modes of transportation and provide intermodal connectivity and improved accessibility.

4. To plan for and provide increased annual funding to support the development of a multi-purpose system of trails and corridors that meets the transportation and recreational needs of the community and connects activity centers, points of interest, parks and recreational areas.

5. To follow the goals and policies adopted in the 2010 San Juan County Parks, Trails and Natural Areas Plan and the 2012 San Juan Islands Scenic Byway Corridor Management Plan.

6. To increase education and outreach to improve bicycle and pedestrian safety and healthy lifestyles, and facilitate alternatives to the single-occupant vehicle which conserve energy and reduce reliance on fossil fuels.

7. To encourage transit providers to provide and expand transportation services that support the needs of local residents and visitors.

8. Support the electrification of land transportation with adequate charging facilities and access to the electric grid.

9. Support policies that encourage the use of clean transportation alternatives to fossil fuel vehicles, including, but not limited to, walking, biking, electric vehicles, electric public transportation, including vans, buses and ferries.

6.5.A Policies for Road Classification, Right-of-Way, Design and Construction (6.5.A.1-15):

Road Classification

1. Classify all County roads as major collectors, minor collectors or local access roads as shown on the road classification maps adopted as part of this Comprehensive Plan in Appendix 6.

2. Establish a prioritized on-going traffic count program for County roads. Local access road counts should be monitored to ensure that traffic volumes do not exceed road design capacities.

Right-of-Way

3. Make. County road rights-of-way widths adequate to accommodate anticipated improvements, including utilities, franchise use options, communications infrastructure, and nonmotorized transportation facilities, and to maintain the roadway. A minimum twenty-year planning period should be used for the purposes of anticipating needed improvements. The County should:

a. Obtain dedications of road rights-of-way when discretionary use permits or land division approvals are sought by property owners; and

b. Ensure coordination between Planning, Public Works, Parks, Land Bank, trail organizations such as the San Juan Island Trails Committee, Orcas Pathways, Lopez Community Trails Network, and other local, state and federal partners during the planning, development, and maintenance of nonmotorized transportation projects.

4. Refrain from vacating public road rights-of-way needed to provide an adequate road system, access to private property, public access to, or a view of water bodies and links to trails systems.

5. Approve parking on County road right-of-way if it will provide a public benefit however; in rural areas, shoulders of County roads should not be widened or improved to provide parking for residential or commercial uses.

6. Consider the inventory of County road ends which abut shorelines that is included in the 2010 San Juan County Parks, Trails and Natural Areas Plan and evaluate their potential for recreational or other uses.

Road Design and Construction

7. Develop and adopt County road standards that meet minimum WSDOT and other applicable agency requirements. The standards should protect rural character, provide for safety, the types and intensities of land uses to be served, volumes of traffic and transportation modes to be accommodated, and planning principles contained in the 1995 Scenic Road Manual. These principles include the design and planning guidelines addressing the protection of rural character and aesthetics.

8. Support road designs that follow the goals and guidelines in the 1995 Scenic Road Manual until they are superseded by Council adopted road standards described in item 7 above. While safety of County roads is a primary concern, the design, construction, and maintenance of roads and right-of way trails should minimize adverse impacts on the scenic character of roadways that is provided by roadside trees, brush and terrain, the routes themselves and vistas from them.

9. Prevent the construction of public or private roads through areas designated Natural or Conservancy in the San Juan County Shoreline Master Program where a feasible alternative exists.

10. Make use of the procedure provided in Chapter 36.86, RCW, to deviate from state standards for collector roads when necessary to maintain their scenic qualities.

11 Include a thorough public participation program and interdisciplinary teams advisory to the County Engineer as early as practicable in the planning and design phases of major projects. Adjacent property owners and other affected persons should be represented on interdisciplinary teams.

12. Strive to preserve the significant scenic, rural quality of island roads including the San Juan Island Scenic Byway.

13. Establish alternative design standards for roads on non-ferry served islands that meet the specific transportation needs of these islands.

14. Consider the creation of a local improvement district to finance improvements consistent with the applicable activity center or subarea plan when owners of property in activity centers desire road improvements that exceed County requirements, such as sidewalks and curbs.

15. Consider using low impact development techniques when physically and economically feasible.

16. Encourage sufficiently well-wearing permeable surfaces for new or replacement roads to reduce runoff. The amount of increase in cost should be borne by the storm drain utility as a direct benefit to that utility.

6.5.B Policies for Driveway Approaches to County Roads, Setbacks, and Maintenance (6.5.B.1-3):

1. Hold the number of driveway approaches to County roads to a minimum to improve traffic safety and minimize maintenance expenses.

2. Ensure that all structures are setback from road rights-of-way in order to maintain the rural and scenic character of County roads and provide for underground utilities.

3. Conduct maintenance of County transportation facilities by:

a. Keeping its transportation facilities in a usable and safe condition.

b. Assigning first priority to maintaining major and minor collector roads.

c. Reduce the number of noxious weeds occurring over the long-term by minimizing to the extent that safety allows clearing of vegetation, particularly trees, in road rights-of-ways. Scheduling clearing should be coordinated with the tourism season in mind. Develop and implement programs as legally required under Chapter RCW 17.10 and Chapter WAC 16.750 to remove noxious weeds, control the spread of their seeds prior to mowing and reduce the spread of noxious seeds after mowing by sweeping and removing refuse from the roadway.

d. Do not use herbicides, pesticides, toxic substances or other chemicals for weed control or other purposes in road rights-of-way.

6.5.C Policies for Land Transportation Level of Service (6.5.C.1-7):

1. Establish LOS standards and response mechanisms for land transportation facilities and services which balance the needs of the community for land transportation with the impacts of those facilities and services.

2. Establish LOS standards for collector roads and UGA and Activity Center Intersections based upon Average Annual Daily Traffic (AADT) volumes. For San Juan County, the maximum AADT levels are provided in Appendix 6, Transportation of this Comprehensive Plan.

3. Establish LOS D as adequate for County collector roads. LOS D can be described as that condition during the peak hour when average vehicle operating speeds drop to 35 miles per hour, platoon sizes are typically 5-10 vehicles, and 75 percent of the motorists are delayed by congestion or slower vehicles. For Urban Growth Areas and Activity Centers, conduct intersection studies to determine the current LOS and evaluate future needs.

4. Initiate the following response mechanism when a County collector road falls below LOS D, based on the AADT:

a. Perform a traffic study to evaluate a collector road outside of an activity center by calculating the LOS using the methods described in the most current edition of the Highway Capacity Manual, and data for the specific section of a collector road outside of an activity center;

b. Re-evaluate the LOS standard to determine if changes in available data, and/or community needs or desires, make modification of the LOS standards appropriate. If changes are appropriate, amend this Element to revise the LOS standards. Identification of how new data or changes in community needs or desires make changes appropriate should accompany any proposal to amend this Element;

c. Initiate an evaluation of alternatives for increasing capacity and/or decreasing demand. The alternatives considered should:

(1) include demand management strategies and other non-structural improvements,

(2) be cost effective,

(3) not significantly increase adverse impacts of the transportation facility on surrounding land uses or the natural environment,

(4) be consistent with the goals and policies of this Element and the other elements of the Comprehensive Plan, and

(5) include the evaluation of the goals and policies contained in the Land Use Element and Shoreline Master Program that affect the rate and amount of residential, commercial, recreational, and industrial growth allowed;

d. Begin implementation of an appropriate mix of capacity improvements and/or demand management strategies to bring the facility(s) back to a level identified as adequate by this Element within one year.

5. Adopt and enforce concurrency standards which would prohibit development approval if the development causes the level of service for the collector roads to decline below the standard adopted in Policy 3, above, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. Transportation improvements or strategies may include, but are not limited to those identified in Policy 4, above.

6. Develop specific LOS standards for collector roads when needed inside of urban growth areas or activity centers as part of the planning for individual activity centers.

7. Do not require concurrency for any other land transportation facilities.

6.5.D <u>Policies for Private Roads</u> (6.5.D.1-2):

1. Private roads should not be incorporated into the County road system unless public benefits are substantial and design standards met.

2. Establish standards for private roads in accordance with the following:

a. Establish private road standards to provide adequate vehicular safety, low maintenance, and meet anticipated vehicular demand.

b. Require private roads to minimize environmental impacts and maintain the scenic character of island roads.

c. Subject roads developed as part of land development or new subdivisions to maintenance agreements when necessary.

d. Consider adoption of lesser road standards for islands not served by ferries.

e. Require improvements to off-site private roads in approving a land development if these roads serve the development and do not meet applicable design standards.

6.5.E <u>Policies for Parking</u> (6.5.E.1-7):

1. Encourage the development of community parking facilities in all areas designated as activity centers in County land use plans. Shared parking among separate facilities should be provided if other applicable parking requirements allow.

2. Provide off-street parking areas open to the public where they would serve transportation facilities or meet community needs.

3. Encourage the business community in commercial core areas to provide parking areas in locations where they would relieve traffic congestion and accommodate taxi, van and bus services without disrupting traffic circulation. Design and location should be carefully considered in accordance with applicable area plans.

4. Provide parking areas on the nearest ferry-served island to accommodate residents of non-ferry served islands, after considering possible funding mechanisms, costs and benefits, and possible parking lot locations.

5. Consider the use of local improvement districts or other administrative and financing structures when desired to build, operate and maintain community parking areas.

6. All major transportation facilities should include adequate off-street parking areas.

7. All parking areas associated with public or private development should:

a. Include safe ingress and egress;

b. Be screened or well setback from roads;

c. Reflect adequate design for ease of use;

d. Provide for the physically impaired; and

e. Provide for alternative forms of transportation.

8. To encourage the transition to clean alternatives to fossil fuel transportation, encourage the development electric vehicle (EV) charging equipped parking facilities in all areas designated as activity centers in County land use plans. EV parking shall have clear signage limiting use of those spaces for EVs only.

6.5.F <u>Policies for Bicycles and Mopeds</u>. (6.5.F.1):

Bicycling and mopeds are important modes of transportation used by residents and visitors to the islands. Increases in the numbers of bicycling enthusiasts and recreational tour groups, as well as the use of mopeds, requires planning for the development of transportation facilities and operations that promote safe travelling experiences for all users and benefit the local economy.

1. Safe facilities and programs for use of bicycles should be developed by the County. Bicycle facility planning should be addressed in updates of the San Juan County Parks, Trails and Natural Areas Plan and bicycle facility financing should be included in the annual capital facilities and transportation improvement programs. The County and its economic and community development partners should:

a. Promote bicycling safety by publicizing the importance of safe riding practices when bicycling in the islands and provide bicycling safety information to bicycle clubs, tour operators and those who provide accommodations and services to island visitors.

b. Identify other ways to foster recognition of rights and responsibilities in the use of County roads by both motorists and bicyclists.

c. Accommodate bicyclists on County roads and consider providing separate bicycle paths; where practical.

d. Sweep road shoulders regularly to facilitate safe use by bicyclists. parking areas associated with new public or private development should:

e. Encourage WSF to unload bicyclists in a safe and efficient manner.

f. Include parking facilities for bicycles in public transportation facilities and encourage commercial developments and other traffic generators to provide bicycle parking facilities away from pedestrian paths.

g. Continue to implement county park user fees for bicycle (and other) tour groups to mitigate their impacts on the county's park infrastructure and services.

h. Consider the policies, design guidelines, recommendations, and standards for accommodating bicyclists on County trails adopted in the 2010 San Juan County Parks, Trails and Natural Areas Plan and the San Juan Islands Scenic Byway Corridor Management Plan.

i. Promote enforcement of road rules and speed limits, and educate the public how to share the road safely.

j. Evaluate the potential to improve safety by reducing the speed limits on high use or other County road segments with unique characteristics considering the legality, usage, season, events and practicality.

k. Support zoning designations near ferry terminals that allow development of bicycle rental shops.

2. Require that moped vendors provide and enforce the use of protective headgear when required by State law and give written and oral instruction regarding safe operation of mopeds as part of a land use project permit approval.

3. Encourage WSF to unload mopeds in a safe and efficient manner.

6.5.G <u>Policies for Trails</u> (6.5.G.1-15):

A multi-purpose system of trails and trail corridors provides community transportation connections, access along major thoroughfares to popular destinations and recreational areas, supports the use of nonmotorized forms of transportation which advances exercise that contributes to healthy lifestyles.

1. Support the development of an interconnected system of trails for walking, hiking, bicycling and horseback riding that is consistent with rural, island living, provides for transportation alternatives, promotes healthy lifestyles, and creates amenities that attract tourists and add vitality to the economy.

2. Partner with local trail organizations such as the San Juan Island Trails Committee, Orcas Pathways and Lopez Community Trails Network, and state and federal partners to refine bicycle, pedestrian and equestrian trail plans and collaboratively address trail project development, financing, maintenance, construction and promotion.

3. Evaluate financing mechanisms and opportunities to expand funding opportunities for trail development and include right-of-way trail projects in Public Work's six-year transportation improvement program and other trail projects in the Park's portion of the six-year capital facilities improvement plan.

4. Consider trail development in subarea and development plans to improve connections between shopping and activity centers and ferry terminals, marinas and airports. Commercial, industrial and multi-family residential developments should include provisions for pedestrian sidewalks and trails where required or needed.

5. Encourage the inclusion of pedestrian, bicycle, and/or equestrian trails in new subdivisions or developments where they could link to existing or planned off-site trails.

6. Design trails to comply with local, state and federal design and as necessary for funding requirements.

7. Consider the use of unimproved roads and utility rights-of-way for use as bicycle, pedestrian or equestrian trails.

8. Consider the use of design techniques that preserve the rural character and scenic qualities of the roadway and employ flexibility and creativity in scenic settings when planning and designing right- of-way trails.

9. Consider local and state standards and evaluate roads to determine if automobile lanes can be narrowed or the roadway can re-striped to more safely accommodate multiple modes of transportation and to minimize conflicts between vehicles, bicyclists and pedestrians.

10. Obtain right-of-way when possible to construct separated trails especially in Urban Growth Areas and along appropriate areas of the corridors identified in the 2010 Parks, Trails and Natural Areas Plan.

11. Consider shoulder widening during right-of-way and easement acquisitions in areas where trails are recommended.

12. Incorporate bicycle turn out areas into roadway/right-of-way trail planning as appropriate and design them to relate to the roadside terrain, transition gradually from the travelling surface, be clearly visible to motorists, and conserve and take advantage of scenic roadside features.

13. Provide for pedestrian signage where trails cross roads.

14. Encourage the development of rest areas along trails systems including picnic areas, water and signage when possible.

15. Promote trail guidelines and practices that are respectful of private property owners' rights.

6.5.H Transit Goals and Policies:

Although San Juan County does not operate a centralized public transit service, many social service, non-profit and private transit providers are working to meet community transportation needs and fill accessibility gaps identified in the 2010 San Juan County Coordinated Human Services Plan.

Goals

1. To encourage and support development of public and private transit and shuttle services.

2. To improve access to health and human services, employment, social, educational, recreational and tourism destinations.

3. To improve mobility and the quality of life for residents and workers.

4. To increase transportation options for tourists and guests.

5. To encourage alternatives to the use of single-occupant vehicles.

6. To consider transit operations in roadway designs.

7. To encourage and support development of electric public and private transit and shuttle services.

Policies for Transit (6.5.H. 1-9):

1. Support the development of social service public transit options and the work of nonprofit and private community transportation partners to:

a. Reduce the isolation of target populations;

b. Increase accessibility to transportation services; and

c. Create additional organizational capacity to sustain implementation of community identified transportation needs.

2. Support the work of community transportation partners such as San Juan Community Services, Senior Services, Family Resource Centers, San Juan Friends and Neighbors Program, SJ Rideshare, social service organizations and private transportation providers to evaluate public transit needs, further identify opportunities for service coordination and implement actions described in the 2010 San Juan County Coordinated Human Services Transportation Plan.

3. Encourage the development of transportation services that meet the needs of the community, especially individuals with lower incomes, seniors, persons with disabilities, and veterans.

4. Support coordinated human services transportation planning that creates improved access to transportation information, develops economies of scale, eliminates inefficiencies and provides greater visibility of transportation options.

5. Explore and support the collaborative efforts of community organizations, state and federal partners, and transportation providers to provide cost effective service delivery, increase capacity to serve unmet needs, improve mobility and the quality of transportation services.

6. Support community transportation planning efforts focused on gaining a better understanding of the transportation needs of the San Juan Islands, creating new methods of island travel, raising awareness of transportation issues, and exploring private and public funding for new public transportation solutions.

7. Leverage community resources to obtain appropriate state and federal funding for transit projects that address both year-round and seasonal transit challenges.

8. Coordinate with the WSDOT Public Transportation Division to implement high priority projects identified by the community using the ranking criteria for selecting projects established in the San Juan County 2010 Health and Human Services Transportation Plan.

9. Support private and nonprofit efforts to address seasonal tourism travel peaks through the development of transit alternatives.

10. Support the development of clean electric vehicle (EV) public transportation, including, but not limited to, EV shuttles, buses, and rental car fleets.

6.6 INTERGOVERNMENTAL AND REGIONAL COORDINATION GOALS AND POLICIES

San Juan County and the Town of Friday Harbor adopted County-wide Planning Policies (CPPs) in Appendix 2 of this Comprehensive Plan. These CPPs include policies for Transportation Facilities and Strategies that foster alignment of transportation planning priorities and strategies affecting the Town and County. Alignment with the Town of Friday Harbor Comprehensive Plan Transportation Element and subarea plans of this Comprehensive Plan is important for intergovernmental coordination of transportation services and facilities. Consistency with the transportation goals and policies established in the Whatcom and Skagit County Comprehensive Plans related to regional transportation service impacts are also considered in this Transportation Element. Lastly, this section provides guidance for alignment with state transportation plans which is an important component of local and regional transportation planning.

Generally in Washington, regional transportation plans are developed in conjunction with local plans and County-wide transportation policies. San Juan County does not meet the population requirements for creating its own Regional Transportation Planning Organization (RTPO), but is eligible to join the Skagit-Island RTPO or another RTPO from a neighboring region. The County has chosen not to join a local RTPO but does informally coordinate with the Skagit and other RTPOs and the North Sound Connecting Communities Group (i.e., the Farmhouse Gang).

The following goals and policies address the alignment of transportation plans, and provide guidance on intergovernmental coordination of local, regional and state planning priorities.

Goals:

1. To plan, prioritize, and finance transportation improvements in coordination with portions of local, regional and state transportation plans.

2. To coordinate with multiple agencies and jurisdictions to facilitate the efficient transportation of people, goods and services to strengthen the local and regional economy.

3. To identify common regional transportation issues and work cooperatively with other agencies, jurisdictions and regional organizations to develop solutions to transportation system challenges.

4. To collaborate with adjacent jurisdictions and regional interests to lobby for legislation and funding that solves regional transportation issues and the provision of beneficial state transportation facilities and services.

Policies (6.6.A.1-17):

1. Coordinate with the Town of Friday Harbor to ensure consistency with the County-wide Planning Policies for Transportation Facilities and Strategies adopted in Appendix 2 of this Comprehensive Plan and to facilitate integration of the transportation system.

2. Coordinate with the Town of Friday Harbor, Port of Friday Harbor and the WSDOT to plan fair share financial contributions to transportation improvements needed to mitigate regional or island-wide transportation impacts consistent with The Town of Friday Harbor Transportation Element Goal TE- 16.

3. Coordinate with the Town of Friday Harbor on cooperative funding of road improvements within the Town of Friday Harbor and the Friday Harbor Urban Growth Area Consistent with the Friday Harbor Transportation Element Goal TE 23.

4. Cooperate with WSDOT, The Town of Friday Harbor and the Port of Friday Harbor during the development of aviation facilities and consistent with Town of Friday Harbor Comprehensive Plan General Air Transportation Policy TE-33, plan for facilities that:

a. Are scaled to serve the needs of Town and Island residents;

b. Are planned in a coordinated and comprehensive manner;

c. Are planned to protect the character of the Town and its neighborhoods; and

d. Are consistent with the policies in the Town and County Land Use Elements.

5. Coordinate with the WSF and Town of Friday Harbor to support marine transportation ferry system policies that provide optimum ferry system services and facilities.

6. Encourage the development of transit service to reduce vehicular traffic in downtown Friday Harbor and on County roads to support conservation goals consistent with Town of Friday Harbor Comprehensive Plan Policy TE-85.

7. Identify and encourage the development of transportation projects that have local and regional benefits and cost sharing efficiencies consistent with Whatcom County Policy 6C-11 to:

> "Identify areas and mechanisms for potentially collaborative projects so that multiple jurisdictions can share costs and efficiencies."

8. Inform the North Sound Connecting Communities Group (aka Farmhouse Gang) and adjacent RTPO of San Juan County's transportation issues and identify coordination issues.

9. Work with neighboring counties, and the Skagit-Island RTPO and Whatcom RTPO to recommend and develop planning goals, policies and plans that address regional issues.

10. Coordinate with transportation planners in Whatcom and Skagit counties and Canada to develop compatible transportation recommendations that support efficient trade and commerce.

11. Coordinate with the Skagit-Island RTPO to support continued provision of ferry service to and from Anacortes-San Juan Islands-Vancouver Island, B.C. consistent with Skagit County Transportation Element Policy 8A-5.6 to:

> "Support the State's continued provision of ferry service to and from Anacortes- San Juan islands-Vancouver Island, B.C."

12. Promote the development of transportation facilities that serve to improve the mobility of goods, services and people to encourage economic development and implement compatible transportation plans of the County and neighboring RTPOs.

13. Coordinate with other jurisdictions, public transit providers, agencies and other entities to promote multimodal travel options and promotions that provide alternatives to the single-use vehicle.

14. Coordinate with the WSF and the Skagit-Island RTPO and Whatcom RPTO to improve intermodal connectivity between public transit operations on the mainland and ferry-service.

15. Periodically assess the costs and benefits of joining an RTPO.

16. Establish better communications and coordination between the County and the Port Districts within the County.

17. Participate in statewide transportation planning organization teleconferences.

Capital Facilities

Previous Comp Plan Material

See: http://www.sanjuanco.com/DocumentCenter/Home/View/1059

Vision:

> *"Our islands are places where all citizens can safely walk or play, day or night. . . . Health care and help in time of need are accessible and affordable. . . . Learning is a continuing lifelong process which is encouraged and aided by the community. . . . Recycling, solid waste, and sewage treatment are managed within the confines of each island in an environmentally sound manner. . . . Our cultural facilities such as libraries, museums, and theaters are focal points of activity and community support. . . . Well managed parks, trails, and shoreline access, where appropriate, provide islanders with recreation with due regard for both the rights of private property owners and the natural limitations of each site."*

The Capital Facilities Element (CFE) was developed to evaluate existing conditions, identify future planning needs, and then set out goals, policies, and preferences of the County for maintaining and improving the quality of capital facilities and services while assuring consistency with the goals and policies regarding use and development of land as expressed in the other elements of the Comprehensive Plan.

An inventory of capital facilities and services, baseline facility and service capacities for 1993, and a projection of future capital facility and service needs, is included in Appendix 7. The Capital Financing Plan (CFP) is also included in Appendix 7 and contains a six-year plan for financing County capital improvements that support the County's current and future population.

New Comp Plan Material

The Capital Facilities element home page currently has a *Draft Capital Facilities Inventory*. See: http://www.sanjuanco.com/DocumentCenter/Home/View/12777

It may be mis-located, since the underlying document is a *Utilities Inventory*. See utilities section below.

There is also a document titled WAC 365-195-315 Capital Facilities (PDF). See: http://www.sanjuanco.com/DocumentCenter/Home/View/12043

Recommended Language

This material is developed by our workgroup.

What challenges, goals, objectives, vision, actions, metrics, what revenue, what economic benefit and impact, how to fund?

Comp Plan Language

Suggested Comp Plan Language (Islands Climate Resilience Steering Committee)

General policies

New policy: Site all new capital facilities in places that are not at risk from potential sea level rise or extreme weather conditions, with the exception of wind and tidal generators, which generally

benefit from unobstructed exposure to wind and sea. Use the latest science to identify potential sea level rise, flood zones, and other characteristics when identifying locations for capital facilities infrastructure.

New policy: Install low-emissions and energy-efficient energy systems in any new capital facilities.

7.3.B Community Water Systems That Serve UGAs, AMIRDs, and MPR Activity Centers

Edits to policy 5 (excerpt): Each plan should include an analysis of the community water system's ability to serve existing and potential land use development and population growth, taking into consideration how climate change is projected to affect water availability.

Suggested Comp Plan Language (from OPALCO)

Notes

All edits appear in red. Original Comp Plan language in black.

7.1 INTRODUCTION

7.1.A Purpose

The Capital Facilities Element (CFE) was developed to evaluate existing conditions, identify future planning needs, and then set out goals, policies, and preferences of the County for maintaining and improving the quality of capital facilities and services while assuring consistency with the goals and policies regarding use and development of land as expressed in the other elements of the Comprehensive Plan.

An inventory of capital facilities and services, baseline facility and service capacities for 1993, and a projection of future capital facility and service needs, is included in Appendix 7. The Capital Financing Plan (CFP) is also included in Appendix 7 and contains a six-year plan for financing County capital improvements that support the County's current and future population.

This element was prepared in accordance with WAC 365–195–315, and includes the following:

• Goals and policies for capital facilities

• Level-of-service (LOS) measures and standards for some capital facilities

• An inventory of existing capital facilities (Appendix 7)

• Projected facility needs for some capital facilities (Appendix 7)

• A six-year financing plan for needed capital facilities (Appendix 7)

7.1.B Level of Service Measures and Standards

One of the principal criteria for identifying needed capital improvements is the establishment of level of service (LOS) standards. LOS standards measure the capacity of capital facilities and services which are necessary to support new development and enhance the quality of life in the community. The LOS standards for San Juan County are based on the community's values and vision of its future. For many facilities and services, the measurement of LOS is based on the unit capacity of the facility, such as square footage, gallons of water, or acres of parks, but for some facilities capacity is based on other factors.

7.1.C Categories of Capital Facilities and Services

1. Urban vs. Rural Capital Facilities and Services

The Growth Management Act restricts urban growth to urban growth areas. It also makes distinctions between urban and rural capital facilities and services. RCW 36.70A.110(4) states that

> (4) ... In general, it is not appropriate that urban governmental services be extended to or expanded in rural areas except in those limited circumstances shown to be necessary to protect basic public health and safety and the environment and when such services are financially supportable at rural densities and do not permit urban development.

Urban government facilities and services are therefore not totally prohibited in rural areas, but may only be placed there for compelling reasons.

Urban and rural government facilities and services are defined in Section .030 of the GMA:

> (16) “Rural governmental services” or “rural services” include those public services and public facilities historically and typically delivered at an intensity usually found in rural areas, and may include domestic water systems, fire and police protection services, transportation and public transit services, and other public utilities associated with rural development and normally not associated with urban areas. Rural services do not include storm or sanitary sewers, except as otherwise authorized by RCW 36.70A.110(4).
>
> (19) “Urban governmental services” or “urban services” include those public services and public facilities at an intensity historically and typically provided in cities, specifically including storm and sanitary sewer systems, domestic water systems, street cleaning services, fire and police protection services, public transit services, and other public utilities associated with urban areas and normally not associated with rural areas.

2. Inventory of Capital Facilities and Services: Categories A and B

Existing capital facilities and services provide the current or baseline LOS which will be used as a benchmark in measuring and evaluating future facility and service needs. The inventory in Appendix 7 contains facility information obtained from service providers and existing capital improvement plans. The County provides limited capital facilities and services to county residents. Many capital facilities and services are provided by independent taxing districts and public or private service organizations. Capital facilities and services available in San Juan County are divided into two categories, A and B, based on the requirement for concurrency (see Section 7.1.D, below).

There are many other capital facilities and services owned or operated by independent taxing districts, and public or private service organizations which provide facilities and services to meet the diverse needs of island communities. These facilities and services are not subject to level of service or concurrency standards but are important to the quality of life in the county as indicated in the Vision Statement. Baseline LOS information is provided in the inventory as a benchmark for future planning purposes.

Figures 1, 2 and 3 on the following pages illustrate the locations of Category-A and -B capital facilities for Districts 1, 2 and 3.

7.1.D Concurrency

The concurrency requirement of this Plan requires that capital facilities and services be matched with development. Concurrency will be required only for the capital facilities and services that are designated in “Category A.” These include County Solid Waste and Recycling Facilities, Community Water Systems, and Community Sewage Treatment Facilities which serve urban growth areas, AMIRDs (areas of more intensive rural development), or Master Planned Resorts activity centers. For those Category-A capital facilities that the County does not provide but which are necessary for development, the concurrency requirement will be implemented through the issuance (or denial) of development permits.

In order for the County to meet its concurrency and permit processing responsibilities, the Category- A capital facilities and services providers which are not controlled and operated by the County will be responsible for reporting to the County, at least annually, the available and planned capacities of their facilities or services necessary to adequately maintain the LOS levels adopted in this Plan. These providers are not required to develop capital facilities and services to meet the LOS standards of this

Plan, but are required to undertake certain planning and analysis responsibilities that are described in the sections below (see Policies 7.3.A.6, 7.3.B.7 and .8, and 7.3.C.8 and .9).

Concurrency is not required for the capital facilities and services that are designated in “Category B.”

FIGURE 1. Category-A and -B Capital Facilities in District 1.

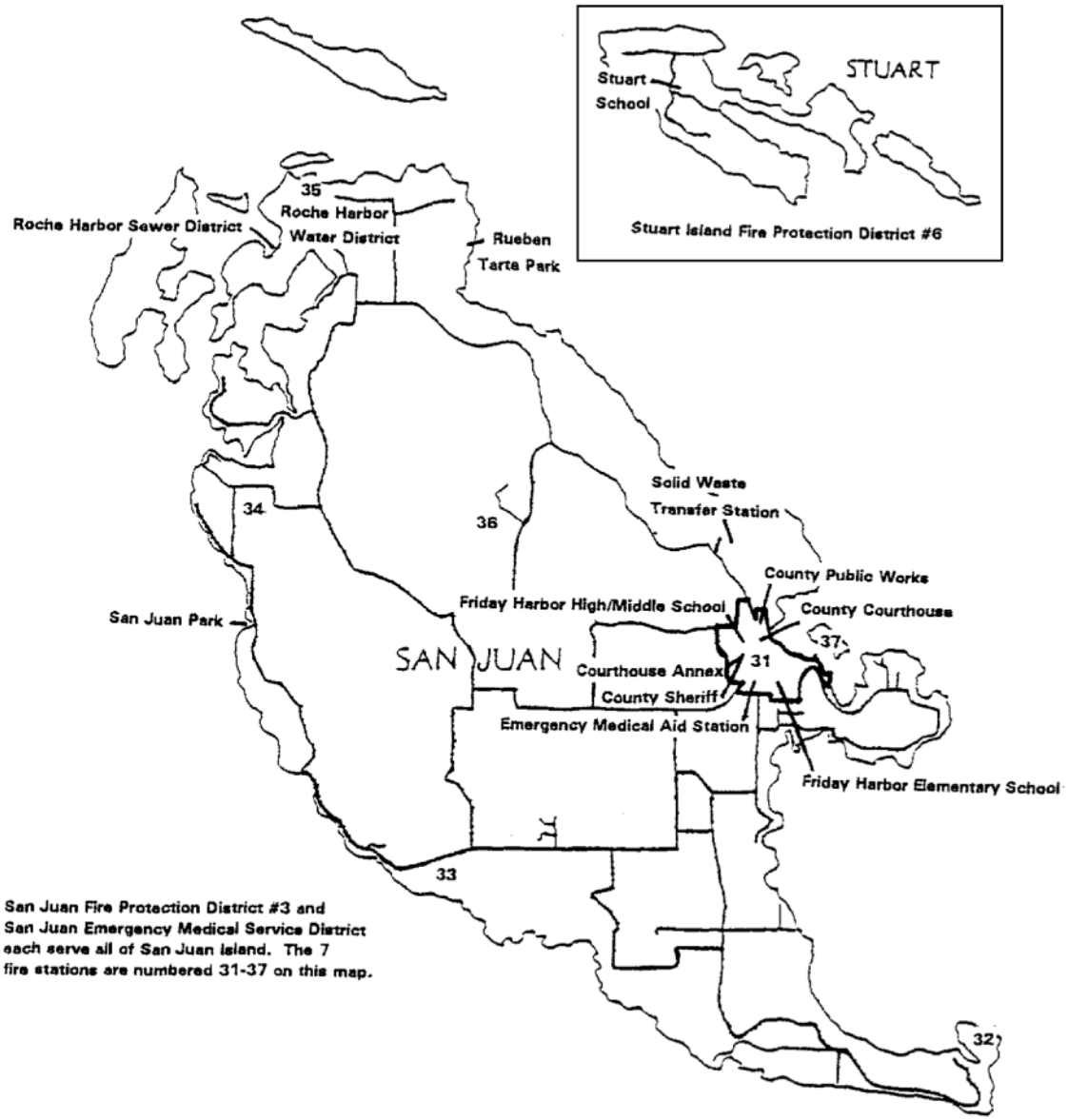


FIGURE 2. Category-A and -B Capital Facilities in District 2.

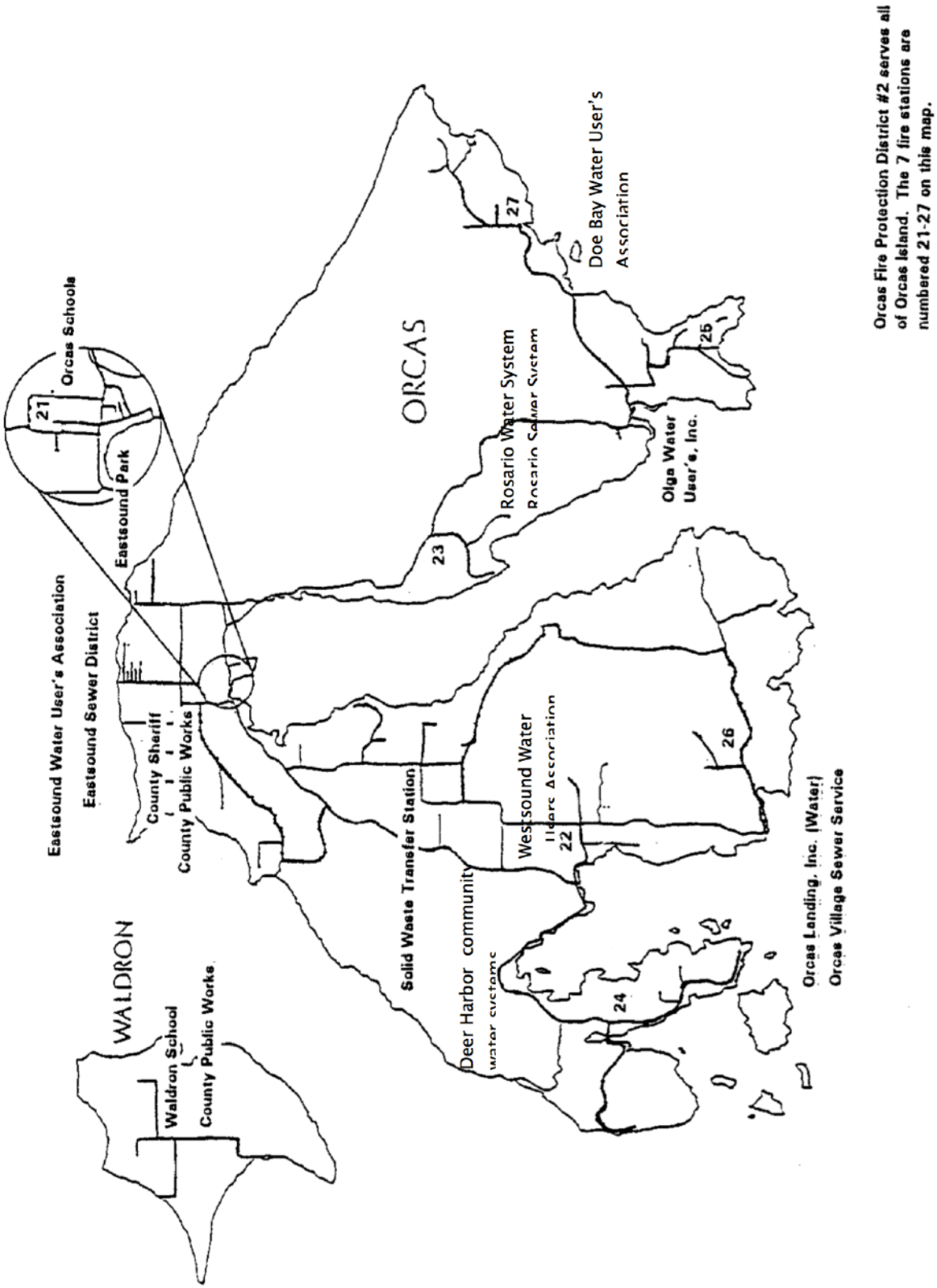
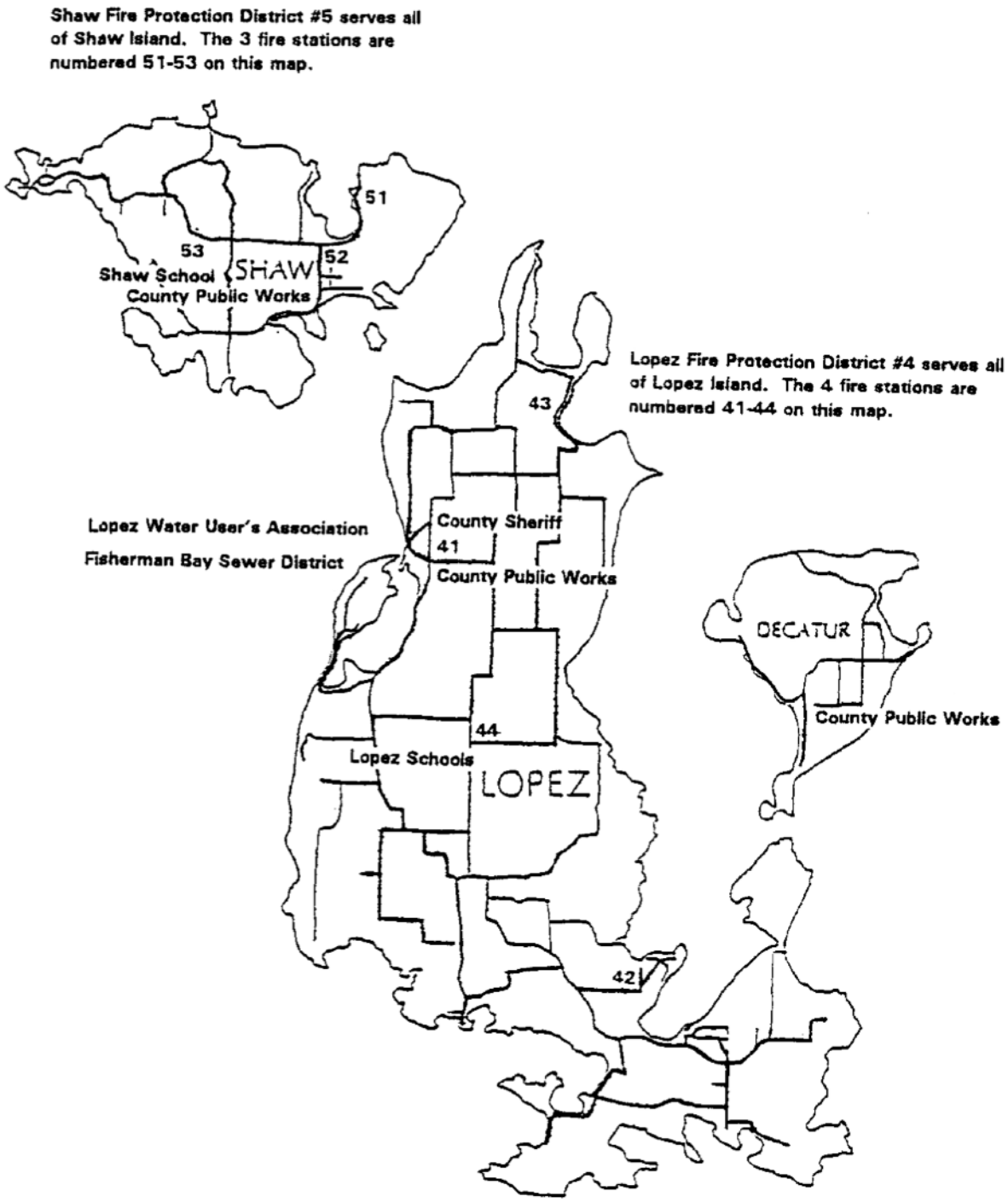


FIGURE 3. Category-A and -B Capital Facilities in District 3.



7.1.E <u>Projected Capital Facility and Service Needs</u>

The projections in Appendix 7 identify capital facilities and services which will be required to support new development during the six years 1996–2001. Existing facilities may need maintenance or capital improvements in order to continue providing the appropriate level of service. Facilities that have deteriorated significantly may not provide adequate levels of service, or may only provide service for a few more years. The inventory in this element identifies facilities which need significant repair, remodeling, renovation, or outright replacement.

7.1.F Capital Financing Plan

The initial Capital Financing Plan (CFP) which is included in Appendix 7 spells out the costs of Category-A and -B County facilities and the sources of revenue that will be used to fund the facilities. The financing plans of independent service providers are not included in the CFP as the county has no responsibility for their budgets or financial plans. The CFP must be financially feasible; in other words, dependable revenue sources must equal or exceed anticipated costs. There are two questions that the CFP must answer:

• What is the quantity of capital facilities and services that will be required by the end of the sixth year of the CFP?

• Is it financially feasible to provide the quantity of facilities and services that are required?

The answer to each question can be calculated by using objective data and formulas. Each type of capital facility and service is examined separately. The costs of all facilities are then added together to determine the overall financial feasibility of the CFP. If the CFP is determined to be financially feasible then it is forwarded to the Board of County Commissioners (BOCC) for final approval. If the analysis determines that the CFP is not financially feasible, six options are available to the County:

1. Reduce the level of service, which will reduce the cost (reduction of an adopted LOS standard will require an amendment to this element of the Comprehensive Plan);

2. Increase revenues to pay for the proposed level of service (e.g., higher rates for existing revenues, new sources of revenue, or a combination of both);

3. Reduce the average cost of the needed capital facilities (e.g., alternative technology, ownership, or financing), thus reducing the total cost, and possibly the quality of the facilities or service;

4. Reduce the demand by reducing consumption (e.g., water conservation, reducing, recycling, and reusing solid waste) which may have high short-term costs, but are likely to result in long-term savings;

5. Reduce the demand for the facilities or service by restricting development (i.e., amend the Land Use Element) which may cause growth to occur in other areas; or

6. Any combination of options 1-5.

The goal of this approach is to bring development into balance with available and affordable capital facilities and services. An outline of response mechanisms, or steps or actions to be taken in such circumstances is provided for Category-A and -B capital facilities.

A Capital Improvement Committee (CIC) appointed by the Board of County Commissioners is responsible for developing the annual update of the six-year schedule of capital improvements in the CFP. The committee will hold public meetings to review LOS requirements and analyze alternatives and the financial feasibility of the CFP. The CIC will produce a final CFP report with recommendations for the BOCC. The final legal authority to adopt, maintain, or change LOS standards in the six-year Capital Facilities Plan rests with the BOCC. The six-year CFP is approved as part of the annual County budget by the BOCC.

7.1.G Essential Public Facilities

Essential public facilities constitute the backbone of an ordered, healthy and economically viable environmentally responsible community, to which all contribute and by which all benefit. Some capital facilities, such as public works facilities, sewage treatment plants, and electric and communication facilities, are necessary for the well being of the community, but are also unpopular neighbors and are

difficult to site. This is especially true in San Juan County due to a limited land supply and a predominantly residential land use pattern. Certain capital facilities are designated as essential public facilities to ensure that they may be provided in the future. Policies for essential public facilities are included in Appendix 2, as part of the Joint Planning Policies.

7.1.H Relationship To Other Plans

This element pulls together recommendations for public facilities from existing County plans, and is coordinated with other jurisdictions including the San Juan County Park and Recreation Plan; the San Juan County Solid Waste Plan; the San Juan County Facilities Master Plan; the San Juan County Comprehensive Water Plan; and, the Community Sewer and Water System plans of service providers.

7.1.I Consistency With Plans of Adjacent Jurisdictions

San Juan County and Town of Friday Harbor Joint Planning Policies. The GMA requires that adjacent jurisdictions coordinate planning efforts and develop comprehensive plans that are consistent with each other. The County and Town adopted Joint Planning Policies in July 1992, which were further amended in 1996 (see Appendix 2). These policies established a framework for County and Town planning efforts for the Friday Harbor Urban Growth Area (FHUGA) and resulted in the FHUGA Management Agreement adopted by the Town and County in 1996 and included in Appendix 3. The Town's Capital Facilities Element is contained within the Town of Friday Harbor Comprehensive Plan.

7.2 GENERAL GOALS AND POLICIES

This section of the CFE provides general goals and policies stating San Juan County's intentions for capital facilities and identifies specific goals and policies addressing levels of service, concurrency management, and financing.

7.2.A General Goals and Policies

General Goals:

1. To provide for the capital facility needs of land development authorized by the land use element of this Plan and the existing and projected population associated with this land development.

2. Ensure that capital budget decisions are made consistent with this Plan.

3. To establish and maintain level of service standards for capital facilities.

4. To coordinate and provide consistency among the many plans for capital improvements, including other elements of the Comprehensive Plan, County subarea plans and other studies, the plans for capital facilities of state and regional significance, the plans of other adjacent local governments, and the plans of independent service districts.

5. To provide guidance and direction to facility and service providers regarding which services and facilities are urban-level, and for which new service may only be provided in growth areas.

General Policies (7.2.A.1-14):

1. Demonstrate the need for capital facilities and the revenues to pay for them.

2. Estimate the eventual operation and maintenance costs of new County provided Category-A and -B capital facilities that will impact the County's annual budget.

3. Appoint a Capital Improvement Committee consisting of department administrators to discuss County capital facility space and service needs, financing, and recommend strategies to achieve adopted LOS standards. The Capital Improvement Committee will be responsible for developing the annual update of the six-year schedule of capital improvements.

4. Capital improvements will be provided to correct existing deficiencies, to replace worn out or obsolete facilities, and to accommodate future growth as indicated in the six-year schedule of improvements.

5. Community sewer and water purveyors, school districts, fire districts and other independent service providers which provide a public facility or service are encouraged to identify their facility and service needs and the means to fund them within the context of this Element.

6. The County, school districts, fire districts, and independent sewer and water purveyors should provide needed capital facilities to all residents within their boundaries in a manner which maximizes the use of existing facilities and promotes orderly growth.

7. Consider the needs of each individual island when planning for capital facilities, except for those facilities provided to serve residents County-wide.

8. Provision of capital improvements and facilities should be based on both demand for facilities and the financial capacity of the County and other purveyors to pay for those improvements and facilities.

9. Explore other revenue sources (i.e., grants, impact fees, real estate excise taxes) which require a capital facilities plan in order to qualify for funding.

10. Explore non-capital alternatives to improve facility capacity and service.

11. Explore the costs and benefits of public/private partnerships in the provision of capital facilities.

12. Consider the geographical location and capacity of existing capital facilities and services in designation of future land uses and land-use district boundaries, and analysis of potential effects on resource lands, special districts, and critical areas.

13. Table 1 sets forth distinctions between rural and urban-level facilities and services, consistent with direction in RCW 36.70A.110(4) and .030(16) and (19):

Table 1. Rural and Urban Levels of Service.

Rural-Level Services	Urban-Level Services
Potable Water Supply	
Group B and Group A community water systems [1]	Water usage per capita at Urban levels; urban-level piping, pressure; pressurized fire flow [1]
Sanitary Waste and Sewage Treatment, and Wastewater	
Septic tanks; Community septic systems and drainfields	Sewage treatment system; sanitary and wastewater sewer systems
Stormwater	
Localized measures; drainage pipes, ditches, holding areas	Area- or system-wide stormwater drainage system
Fire Suppression Services	
Pond-supplied, and other fire suppression except pressurized, piped flow [1]	Pressurized, piped fire-suppression flow (and hydrants) [1]

[1] *However*, if required by the fire marshal or by the fire hydrant code, SJCC 13.08, a residential rural level of service for water supply and fire protection may include a piped system capable of delivering a pressurized fire-flow, and fire hydrants.

14. Urban-level facilities and services should not be provided outside of urban growth areas or AMIRDs that have such services and service levels already. Case-specific and narrowly defined exceptions may

be made to this policy for rural schools, essential public facilities located in rural or resource lands, and where the exception is necessary in order to protect basic public health and safety and the environment.

7.2.B LOS Goals and Policies

Goal:

To ensure that those capital facilities and services necessary to support development are adequate to serve the development at the time the development is available for occupancy and use without decreasing current facility capacity below locally established minimum standards, and to ensure that plans are in place to serve future development.

Policies (7.2.B.1-6):

1. Identify both capital facilities and services necessary for growth that will be required to be available at adopted capacities concurrent with new development and those that will not be required to be concurrent with new development. Capital facilities provided by the Town of Friday Harbor are not included (see the FHUGA Management Agreement, Appendix 3). Capital facilities are divided into the two categories, A and B, as is described in Section 7.1.D, above, and shown in Table 2:

Table 2. Categorization of Capital Facilities in San Juan County.

Category	Description	Facilities Included
A	Facilities owned or operated by San Juan County or independent taxing districts and public or private service organizations that are necessary to support development and are required to be available at adopted levels of service concurrent with new development.	1. County Solid Waste and Recycling. 2. Community Water Systems that Serve urban growth areas, AMIRDs (areas of more intensive rural development), or Master Planned Resort activity centers. 3. Community Sewage Treatment Systems that serve urban growth areas, AMIRDs (areas of more intensive rural development), or Master Planned Resort activity centers.
B	Facilities owned or operated by San Juan County or independent taxing districts and public or private service organizations that are necessary to support development and subject to level of service standards, but are not required to be available concurrent with new development.	1. County Government Services: a. General Administration b. Sheriff c. Public Works d. Parks and Recreation 2. Public Schools.

2.

2. The development permit applicability and budget implications for Category-A and -B capital facilities and services are as follows:

a. Category A

(1) The LOS standards for each type of capital facility or service in Category A will apply to permits for development issued by the County after the effective date of implementation of the Comprehensive Plan.

(2) The LOS standards for each capital facility or service in Category A which are provided by the County will be included in the County's annual budget and in the County's Annual Capital Improvement Program beginning with the 1997 fiscal year.

(3) The LOS standards for Category-A public facilities provided by entities other than San Juan County will not apply to the County's annual budget or the County's CFP. The LOS standards will,

however, apply to the annual budgets and capital improvement programs of the entities which provide them.

(4) Category-A capital facilities and services providers not controlled and operated by the County shall be responsible for:

i. Developing and reporting to the County the methodologies to be used by them to determine the capacities of their capital facilities and services and to conduct concurrency tests.

ii. Conducting concurrency tests for their facilities and services for development projects that will make demands on their facilities and services.

iii. Reporting to the County at least annually the capacities (existing and planned) of their facilities or services available to adequately maintain the LOS levels adopted in this Comprehensive Plan.

b. Category B

(1) The LOS standards for each type of capital facility or service in Category B will not apply to development permits issued by the County.

(2) The LOS standards are provided as a benchmark to measure the adequacy of capital facilities and services in the future.

(3) The LOS standards for each capital facility or service in Category B which are provided by the County will be included in the County's annual budget and in the County's Annual Capital Improvement Program beginning with the 1997 fiscal year.

3. Capital facility improvements which are needed to eliminate existing deficiencies at adopted LOS standards and to serve the projected needs of future growth for each capital facility will be calculated as follows:

$Q = (S \times D) - I$

where

Q = Quantity of capital improvements needed

S = Adopted Standard for level of facility

D = Demand, such as population

I = Inventory of existing capital facilities and services

4. Circumstances in which LOS standards are not the exclusive determinant of need for a capital improvement are:

a. Repair, remodeling, renovation, and replacement of obsolete or worn out facilities shall be determined by the Board of County Commissioners upon recommendation by the Capital Improvement Committee.

b. Capital improvements that provide levels of service in excess of the standards adopted in this Plan may be constructed or acquired at any time as long as the following conditions are met:

(1) The capital improvement does not preclude any other capital improvement that is needed to achieve or maintain the standards for facility capacity adopted in this Plan unless the existing LOS standard is lowered accordingly; and

(2) The capital improvement does not contradict, limit, or substantially change the goals and policies of any element of this Comprehensive Plan; and

(3) One of the following conditions is met:

i. The excess capacity is an integral part of a capital improvement that is needed to achieve or maintain standards for facility capacity (i.e., the minimum capacity of a capital project is larger than the capacity required to provide the level of service); or

ii. The excess capacity provides economies of scale making it less expensive than a comparable amount of capacity if acquired at a later date; or

iii. The asset acquired is land that is environmentally sensitive, or designated by the County as necessary for conservation, or recreation; or

iv. The excess capacity is part of a capital project financed by general obligation bonds approved by referendum; or

v. Excess capacity results from an opportunity unique or uncommon or unlikely to be repeated; or

vi. Capacity will not be excessive to the point of diminishing the rural character of an area.

5. The County may provide non-capital alternatives to achieve and maintain the adopted standard for level of service. Non-capital alternatives use programs, strategies, or methods other than traditional “brick and mortar” capital improvement standards. Non-capital alternatives include, but are not limited to the following:

a. Programs that reduce or eliminate the need for capital facilities (i.e., public education, volunteer training and recruitment, contracting with private service providers, etc.).

b. Programs that provide a non-capital substitute for the capital facility (i.e., availability of state, federal, or other parks and recreation facilities).

c. Programs that reduce the demand for a capital facility or the service it provides (i.e., waste reduction, reuse, and recycling as an alternative to long-hauling solid waste).

d. Programs that use alternative methods to provide facility capacity (e.g., long-hauling solid waste as an alternative to constructing new landfills, telecommuting as an alternative to expanding employee work space).

e. Programs that use existing facilities more efficiently (e.g., night court as an alternative to more courtrooms during the day; flextime and evening and night shifts as an alternative to additional space for County government administration staff).

6. Any capital improvement that is needed as a result of any of the factors listed in Policy 5, above, will be included in the regular schedule of capital improvements contained in this element. All such capital improvements will be approved in the same manner as the capital improvements that are needed according to the quantitative analysis described in Policy 3, above.

7.2.C <u>Concurrency Management Goals and Policies</u>

Goal:

To provide adequate capital facilities by constructing needed capital improvements for repair or replacement of obsolete or worn out facilities, to eliminate existing deficiencies, and meet the needs of future population and associated development and redevelopment.

Policies (7.2.C.1-6):

1. Demonstrate the ability to provide needed improvements by maintaining a financially feasible six-year Capital Financing Plan (CFP).

2. Provide the capital improvements listed in the six-year CFP. The schedule of capital improvements will be updated annually in conjunction with the budget process.

3. Include in the capital appropriations of the annual budgets all of the capital improvement projects listed in the schedule of capital improvements for expenditure during the appropriate fiscal year, except that the

County may omit any capital improvements for which a binding agreement has been executed with another party to provide the same project in the same fiscal year.

4. The concurrency requirement for Category-A capital facilities is met upon determination that there is sufficient capacity of Category-A capital facilities to meet adopted LOS standards. Development required to meet the concurrency test includes any construction or expansion of a structure or use, or any change in use of land or structures that creates a need for Category-A capital facilities.

5. The availability of capital facility capacity to support development should be determined separately for each type of facility deemed necessary and in accordance with the following for all Category-A capital facilities:

a. The necessary facilities and services are in place at the time a development permit is issued;

b. Development permits are issued subject to a condition that necessary facilities and services will be in place prior to occupancy or use of the development;

c. The necessary facilities are under construction at the time a development permit is issued, and the necessary facilities will be in place prior to occupancy or use of the development;

d. The necessary facilities are the subject of a binding executed contract which provides for the actual construction of the required facilities and guarantees that the necessary facilities will be in place prior to occupancy or use of the development; or

e. The necessary facilities are guaranteed in an enforceable development agreement that guarantees the necessary facilities will be in place prior to occupancy or use of the development.

6. Development permits will not be issued by the County unless sufficient capacity of Category-A capital facilities is available as described under Policy 4, above.

7.2.D Capital Facility Financing Goals and Policies

Goal:

To provide needed capital facilities that are within the ability of the County to fund, or within the County's authority to require others to provide.

Policies (7.2.D.1-4):

1. Estimated costs of all needed capital improvements should not exceed conservative estimates of revenues from sources that are available to the County. Conservative estimates need not be the most pessimistic estimate, but cannot exceed the most likely estimate.

2. The costs of needed capital facility improvements should be borne by both existing and future development. For the purposes of this Plan "existing development" means development which has occurred or development which is vested prior to regulations implementing this Plan and ”future development” means development which has not yet occurred and has not been vested prior to regulations implementing this Plan.

a. Existing Development

(1) Financial responsibility includes:

i. capital facility improvements that reduce or eliminate existing deficiencies; and Capital Facilities Element 14

ii. some or all of the replacement of obsolete or worn out capital facilities, including a portion of the cost of capital facility improvements needed to serve future development.

(2) Forms of payment may include: user fees, service charges, special assessments, and taxes.

b. Future Development

(1) Financial responsibilities include:

i. a fair share of the costs of capital improvements needed to address the impact of future development; and

ii. a portion of the cost of outright replacement of obsolete or worn out facilities to accommodate future development.

(2) Financial responsibilities do not include a portion of the costs to eliminate existing deficiencies of capital facilities.

(3) Forms of payment include, but are not limited to: voluntary contributions for the benefit of any capital facility, impact fees, dedications of land, provision of capital facilities, public or private partnerships and payment of future user fees, service charges, special assessments, and taxes.

(4) Upon completion of construction, "future" development becomes "existing" development, and shall contribute to paying the costs of the replacement of obsolete or worn out facilities.

c. Existing and Future Development

The cost of capital improvements to maintain LOS standards may be paid by user fees, taxes, grants, entitlements, or out of capital facility budgets of public or private parties.

3. The County should not provide a capital facility, nor should it accept the provision of a capital facility by others, if the County or other provider is unable to pay for the subsequent annual operating and maintenance costs of the facility.

4. In the event that revenues identified as necessary for the provision of adequate capital facilities and services are unavailable, this Plan should be revised to adjust for the lack of such revenues, in any of the following ways:

a. Reduce the level of service for one or more capital facilities; or

b. Increase the use of other sources of revenue; or

c. Decrease the demand for and subsequent use of the capital facilities; or

d. A combination of the above alternatives.

7.3 GOALS AND POLICIES FOR CATEGORY-A CAPITAL FACILITIES

The goals and policies in this section only address LOS and concurrency issues for Category-A facilities, all other issues related to these facilities are addressed in specific facility plans. The LOS standards provide actual numbers and ratios which the Capital Improvement Committee should use for planning the future facility needs of the County.

7.3.A Solid Waste and Recycling Services Supplied by County and Non-County Providers

Goals:

1. To ensure that solid waste is managed to the benefit of the environment and the residents of San Juan County.

2. To manage the solid waste stream cost-effectively, consistent with a progressive waste reduction and recycling program.

3. To reduce the volume of the waste stream through effective and sustained waste reduction and recycling efforts.

4. To fully comply with or exceed Minimum Functional Standards (San Juan County Solid Waste Management Plan, 1992) for solid waste management and disposal, and to meet or exceed operating permit requirements.

Policies (7.3.A.1-8):

1. Solid waste and recycling facilities named in the Solid Waste Management Plan should be considered essential public facilities.

2. Solid waste and recycling facility capacity should be measured on a county-wide basis and for each facility. LOS calculations should take into account both public and private facilities. For San Juan Island facilities the measures should take into account the needs of Friday Harbor.

3. The LOS measurements for County solid waste facilities are calculated as follows:

(LHD - SWG) / LHD = AFC

Where

LHD = Long-Haul Disposal capability and planned capacity (i.e., the volume of garbage that can be processed. This is the volume of garbage per truck multiplied by the number of transfer trailers that can be filled and transferred off the island in a day.)

SWG = Solid Waste (garbage) Generated by County population. (Because there are limits to the number of garbage trucks that can be moved by the ferries, it is the amount of garbage, not recycling, that at present is the important quantity for determining capacity.)

AFC = Available Facility Capacity at solid waste transfer stations

3. LOS standards for solid waste transfer and recycling facilities on San Juan, Orcas, and Lopez islands are listed in Table 3, below.

Table 3. LOS for Solid Waste and Recycling Facilities.[1]

Category-A Capital Facility	Level of Service (LOS) Standards					
	A	B	C	D	E	F
Solid Waste Transfer and Recycling Facilities	Available Facility Capacity (%)					
	>25	25	20	15	10	<10

[1] Measured on a county-wide basis, including both public and private facilities, and including the needs of the Town of Friday Harbor.

5. Establish LOS F as adequate for available transfer facility capacity on San Juan, Orcas, and Lopez Islands. This means that, for County planning purposes, solid waste transfer facilities will be considered to be adequate if they have sufficient existing capacity or planned capacity as defined by the San Juan County Code.

6. Solid waste transfer facilities and services providers not controlled and operated by the County shall be responsible for:

a. Developing and reporting to the County the methodologies to be used by them to determine the capacities of their capital facilities and services.

b. Reporting to the County at least annually the capacities (existing and planned) of their facilities or services available to adequately maintain the LOS levels adopted in this Comprehensive Plan.

7. When solid waste and recycling facilities fall below LOS B the County and individual service providers should initiate response mechanisms as follows:

a. Re-evaluate the LOS standard to determine if it is appropriate. If it is no longer considered appropriate, revise the LOS standards in Policy 5, above.

b. Increase solid waste and recycling facility capacity by:

(1) Increasing the number of days that solid waste transfer and recycling facilities are open per week; or

(2) Remodeling/expanding existing solid waste transfer and recycling facilities; or

(3) Renting, leasing, or purchasing additional land for constructing new, or expanding existing, solid waste transfer and recycling facilities; or

(4) Condition permits for new development to provide for solid waste and recycling facilities which are lacking.

c. Decrease demand for solid waste transfer and recycling facilities and services by:

(1) Evaluating the goals and policies contained in the Land Use Element and Shoreline Master Program that affect the rate and amount of residential, commercial, recreational, and industrial growth allowed; or

(2) Re-evaluating the concurrency policies contained in this Element and revise the concurrency standards if appropriate; or

(3) Implementing ordinances and educational programs in public schools to reduce the waste stream; or

(4) Increasing efforts to educate and involve businesses and the public in local waste reduction and recycling programs.

8. Adopt and enforce a concurrency management ordinance which would prohibit development approval if the development causes the LOS for solid waste and recycling facilities to decline below the LOS standard adopted in Policy 5, above, unless improvements or strategies to accommodate the impacts of development are made concurrently with the development.

9. Establish a monitoring program in which the County will annually evaluate demand at and capacity of transfer stations and other components of solid waste management both on a county-wide basis and individually for each facility, review the continuing appropriateness of methodologies and assumptions (e.g., the relative importance of garbage v. recycling to available capacity), and evaluate the effect of changes in the waste stream (e.g., additional recycling items) or regulatory responsibilities. The County will review on a five-year basis the consistency of the Solid Waste Management Plan with this Plan and the Growth Management Act.

7.3.B Community Water Systems That Serve UGAs, AMIRDs, and MPR Activity Centers

Goal:

To ensure that designated urban growth areas, AMIRDs (areas of more intensive rural development), or Master Planned Resort activity centers are served by community water supply systems and that plans for future development are in place.

Policies:

1. Community water systems which serve urban growth areas, AMIRDs (areas of more intensive rural development), or Master Planned Resort activity centers should be considered essential public facilities.

2. New development within urban growth areas, AMIRDs (areas of more intensive rural development), or Master Planned Resort activity center boundaries should be served by approved community water systems.

3. New land development should be required to contribute to a community water system facility. Standards for exceptions should consider existing sources of water or alternative systems.

4. The LOS measurement for community water systems should be based on system capacity and calculated as follows:

EC / AC = OC

Where

EC = Existing Connections (expressed in Equivalent Residential Units. Existing connections include those memberships that are purchased but not yet connected)

AC = Approved Connections and planned capacity (or the system capacity, expressed in Equivalent Residential Units. Approved connections include the total number of connections approved for the system by the County or State)

OC = Operating Capacity (the portion of total system capacity that is committed to serving existing connections and memberships)

5. Service providers should develop Water System Plans (WSP) for community water systems which serve urban growth areas, AMIRDs (areas of more intensive rural development), or Master Planned Resort Activity Centers. WSP's should include an inventory, analyze existing facilities, identify a schedule of needed improvements, a financial program, and an operations program. Details of WSP requirements are outlined in WAC 248–54–065. Each plan should include an analysis of the community water system's ability to serve existing and potential land use development and population growth.

Facility and Service providers are responsible for reporting their facility capacities to the County, and for fulfilling the concurrency responsibilities of Policy 7.2.B.2(a)(4). In addition, those providers not controlled by the County but who require a membership or other commitment as a condition of service shall account for their available capacity in both of the following ways:

a. “Available Capacity”. The existing capacity of the concurrency facility, plus the planned capacity, reduced by the capacity that is already used or that is reserved or committed for use in the future,

b. “Available Capacity Minus Potential Demand by Approved Projects”. The available capacity, minus the capacity that potentially would be used by approved new development projects, in order to reflect the potential additional demand that will be made by the developments when they subsequently apply for memberships and/or meet the conditions of service prior to the time of occupancy or use.

6. LOS standards for community water systems serving urban growth areas, AMIRDs (areas of more intensive rural development), or Master Planned Resort activity centers are listed in Table 4, below.

Table 4. LOS for Community Water Systems.

Category-A Capital Facility	Level of Service (LOS) Standards (Operating Capacity, in percent)[1]					
	A	B	C	D	E	F
Eastsound Water User's Association	<80	80	85	90	95	>95
Fisherman Bay Water Association	<80	80	85	90	95	>95
Milagra Water System	<80	80	85	90	95	<95
Roche Harbor Water System, Inc.	<80	80	85	90	95	>95
Deer Harbor	<80	80	85	90	95	>95
Doe Bay Water User's Association	<80	80	85	90	95	>95
Olga Water User's, Inc.	<80	80	85	90	95	>95
Orcas Landing, Inc.	<80	80	85	90	95	>95
Westsound Water Users Association	<80	80	85	90	95	>95
Rosario Water System	<80	80	85	90	95	>95

[1] Operating Capacity = Percent of system capacity committed to serving existing connections and memberships.

7. Establish LOS F as adequate for the community water systems in Table 4 above. This means that, for County planning purposes, the community water systems listed above are considered to have adequate distribution capacity if they have sufficient capacity or planned capacity as defined by the San Juan County Code. (For providers who are not controlled by the County and who require a membership or other commitment as a condition of service, available capacity should be reduced by the potential additional demand of approved projects.) When water distribution facilities reach 85 percent of system capacity the service provider should be required to develop formal plans addressing how additional distribution capacity will be provided. These plans should be submitted to the County for review. If a community water system does not plan to expand or provide additional service then additional development will not be permitted to occur for that system or service area once the system reaches 100 percent capacity.

8. When community water systems fall below LOS C, the County and individual service providers should initiate response mechanisms as follows:

a. The County should re-evaluate the LOS standard to determine if it is appropriate. If it is no longer considered appropriate, revise the LOS standards in policy 7, above.

b. Facility and service providers may increase community water system facility capacity by:

(1) Remodeling/expanding existing community water system facilities; or

(2) Repairing leaks in existing community water system facilities; or

(3) Developing new water sources; or

(4) Implementing conservation measures, including restrictions on some uses of water, such as watering lawns and washing automobiles.

c. The County may decrease demand for community water system facilities and services by:

(1) Evaluating the goals and policies contained in the Land Use Element and Shoreline Master Program that affect the rate and amount of residential, commercial, recreational, and industrial growth allowed; or

(2) Re-evaluating the concurrency policies contained in this Element and revise the concurrency standards if appropriate; or

(3) Implementing a moratorium on new development within community water system service boundaries.

9. Adopt and enforce a concurrency management ordinance which would prohibit development approval if the development causes the LOS for community water system facilities to decline below the LOS in Policy 7, above, unless improvements or strategies to accommodate the impacts of development are made concurrently with the development.

10. The following general water system plans are adopted and included in this Plan by reference:

a. Fisherman Bay Water System Plan (June 2006) as amended to reflect 2008 service area expansion and 2008 Capital Improvements Plan.

b. Water System Plan for Milagra Water System (November 2008), with the exception of those portions of the plan which show former rather than current boundaries of the Lopez Village UGA.

(Ord. 15-2009, Ord. 5-2009)

7.3.C Community Sewage Treatment Facilities That Serve UGAs, AMIRDs, and MPR Activity Centers

Goal:

To ensure that designated urban growth areas, AMIRDs (areas of more intensive rural development), or Master Planned Resort activity centers are served by community sewage treatment facilities and that plans for serving future development are in place.

Policies:

1. Community sewage treatment facilities which serve urban growth areas, AMIRDs (areas of more intensive rural development), or Master Planned Resort activity centers should be considered essential public facilities. County septage collection and treatment facilities should also be considered essential public facilities.

2. Land development within urban growth areas, Master Planned Resort activity centers, or Village activity centers which is expected to have an impact equal to or greater than a single family residence should be served by community sewage treatment facilities.

3. Community sewage treatment service providers should develop capital improvement plans which:

a. Delineate service area boundaries;

b. Inventory existing and approved development within service area boundaries;

c. Inventory potential development within service area boundaries under the County Comprehensive Plan and other applicable plan designations;

d. Establish the available community sewage treatment facility service capacity;

e. Adopt LOS standards and response mechanisms;

f. Contain a schedule of capital improvements necessary to maintain the community sewage treatment facility at the adopted LOS, including project, timing, cost, and funding source.

Facility and Service providers are responsible for reporting their facility capacities to the County, and for fulfilling the concurrency responsibilities of Policy 7.2.B.2(a)(4). In addition, those providers

not controlled by the County but who require a membership or other commitment as a condition of service shall account for their available capacity in both of the following ways:

(1) “Available Capacity”. The existing capacity of the concurrency facility, plus the planned capacity, reduced by the capacity that is already used or that is reserved or committed for use in the future; and

(2) “Available Capacity Minus Potential Demand by Approved Projects”. The available capacity, minus the capacity that potentially would be used by approved new development projects, in order to reflect the potential additional demand that will be made by the developments when they subsequently apply for memberships and/or meet the conditions of service prior to the time of occupancy or use.

4. The following general sewer plans have been adopted and included in this Plan by reference:

a. General Sewer Plan—Roche Harbor Area (Ordinance No. 1–1995)

b. Eastsound Sewer and Water District 2008 Update of 2003-2023 General Sewer Plan (2008) except for any references in that plan to the development of a sewer line extension outside of the Eastsound UGA.

c. Those portions of the Fisherman Bay Sewer District Wastewater System Master Plan (2008) attached as Addendum 1 to Appendix 7 of this Plan.

5. The County and independent sewer districts should work cooperatively to develop fair and consistent policies and incentives to phase out private sewer/septic systems in areas served by community sewage treatment facilities.

6. The LOS measurement for community sewage treatment facilities will be based on system capacity and calculated as follows:

EC / AC = OC

Where

EC = Existing Connections (expressed in Equivalent Residential Units. Existing connections include those memberships that are purchased but not yet connected)

AC = Approved Connections and planned capacity (or the system capacity, expressed in Equivalent Residential Units. Approved connections include the total number of connections approved for the system by the County or State)

OC = Operating Capacity (the portion of total system capacity that is committed to serving existing connections and memberships)

7. LOS standards for community sewage treatment facilities which serve Village activity centers are listed in Table 5, below.

8. Establish LOS F as adequate for community sewage treatment facilities in Table 5. This means that, for County planning purposes, the community sewage treatment facilities listed above are considered to have adequate treatment capacity if they have sufficient existing capacity or planned capacity as defined by the San Juan County Code. (For providers who are not controlled by the County and who require a membership or other commitment as a condition of service, available capacity should be reduced by the potential additional demand of approved projects.)

When sewage treatment facilities reach 85 percent of system capacity the service provider will be required to develop formal plans addressing how additional treatment capacity will be provided. These plans will be submitted to the County for review. If a community sewage treatment system does not plan to expand or provide additional service then additional development will not be permitted to occur for that system or service area once the system reaches 100 percent capacity.

Table 5. LOS for Community Sewage Treatment Facilities.

Category-A Capital Facility	Level of Service (LOS) Standards (Operating Capacity, in percent)[1]					
	A	B	C	D	E	F
Eastsound Sewer District	<80	80	85	90	95	>95
Orcas Landing Sewer System	<80	80	85	90	95	>95
Roche Harbor Sewer System	<80	80	85	90	95	>95
Rosario Sewer System	<80	80	85	90	95	>95
Fisherman Bay Sewer System	<80	80	85	90	95	>95

[1] Operating Capacity = Percent of system capacity committed to serving existing connections and memberships.

9. When community sewage treatment facilities fall below LOS C, the County and individual service providers should initiate response mechanisms as follows:

a. The County should re-evaluate the LOS standard to determine if it is appropriate. If it is no longer considered appropriate, revise the LOS standards in Policy 8, above.

b. Facility and service providers may increase community sewage treatment facility capacity by:

(1) Remodeling and/or expanding existing community sewage treatment facilities; or

(2) Constructing new community sewage treatment facilities.

c. The County may decrease demand for community sewage treatment facilities and services by:

(1) Evaluating the goals and policies contained in the Land Use Element and Shoreline Master Program that affect the rate and amount of residential, commercial, recreational, and industrial growth allowed;

(2) Re-evaluating the concurrency policies contained in this Element and revise the concurrency standards if appropriate; or

(3) Implementing a moratorium on new development within community sewage treatment facility service boundaries until capacity can be expanded.

10. Adopt and enforce a concurrency management ordinance which would prohibit development approval if the development causes the LOS for community sewage treatment facilities to decline below the LOS in Policy 8, above, unless improvements or strategies to accommodate the impacts of development are made concurrently with the development.

(Ord. 14-2009, Ord. 11-2009, Ord. 39-2008)

7.4 CATEGORY-B CAPITAL FACILITIES AND SERVICES

7.4.A County Government Services

1. General Administration

Goal:

To provide adequate building space to facilitate maximum efficiency of government administration and the most effective provision of government services to County residents.

Policies (7.4.A.1.1-5):

1. County government administrative buildings should be measured on a county-wide basis.

2. The LOS measurement for County government administration facilities should be calculated as follows:

ASF / CR = SFA

where

ASF = Administrative Square Feet

CR = County Residents

SFA = Square Feet Available

3. LOS standards for County government administration facilities are listed in Table 6, below.

Table 6. LOS for County Government Administration Buildings.

LOS Measurement	Level of Service (LOS) Standards					
	A	B	C	D	E	F
Building Square Feet per Capita	>2.75	2.75	2.70	2.65	2.60	<2.60

4. Establish LOS C as adequate for County government administrative facilities. This means that the County should maintain the same amount of administrative square feet per capita that existed in 1993.

5. When County government administrative buildings fall below established LOS standards the following response mechanisms should be considered:

a. Re-evaluate the LOS standard to determine if it is appropriate. If it is no longer considered appropriate, revise the LOS standards in Policy 4, above.

b. Increase County government administrative facility capacity by:

(1) Constructing additional County government administrative facilities; or

(2) Remodeling existing County government administrative facilities; or

(3) Renting, leasing, or purchasing appropriate building space from private property owners; or

(4) Implementing flextime, evening, and night shifts to use existing facilities more efficiently.

c. Decrease demand for County government administrative facilities by:

(1) Contracting with the private sector to provide additional services; or

(2) Evaluating the goals and policies contained in the Land Use Element and Shoreline Master Program that affect the rate and amount of residential, commercial, recreational, and industrial growth allowed.

2. <u>County Sheriff</u>

Goal:

To provide adequate building space to facilitate maximum efficiency and timely provision of public safety, law enforcement, and emergency services.

Policies (7.4.A.2.1-7):

1. County Sheriff facilities should be considered essential public facilities.

2. County Sheriff facilities should be measured separately on San Juan, Orcas, and Lopez islands.

3. The LOS measurements for County Sheriff facilities should be calculated using the following two formulae:

EO / IR = EP

where

EO = Enforcement Officers

IR = Island Residents

EP = Enforcement Provided

SSF / EO = EAS

where

SSF = Station Square Feet

EO = Enforcement Officers

EAS = Enforcement Administrative Space

4. LOS standards for County Sheriff facilities are listed in Tables 7, 8, and 9, below.

Table 7. LOS for San Juan Island Sheriff Facilities.

LOS Measurement (per Capita)	Level of Service (LOS) Standards					
	A	B	C	D	E	F
Enforcement Officers	>.0010	.0010	.00095	.00090	.00085	<.00085
Station Square Feet	>.325	.325	.300	.275	.250	<.250

Table 8. LOS for Orcas Island Sheriff Facilities.

LOS Measurement (per Capita)	Level of Service (LOS) Standards					
	A	B	C	D	E	F
Enforcement Officers	>.0010	.0010	.00095	.00090	.00085	<.00085
Station Square Feet	>.130	.130	.120	.110	.100	<.100

Table 9. LOS for Lopez Island Sheriff Facilities.

LOS Measurement (per Capita)	Level of Service (LOS) Standards					
	A	B	C	D	E	F
Enforcement Officers	>.0010	.0010	.00095	.00090	.00085	<.00085
Station Square Feet	>.425	.425	.400	.375	.350	<.350

5. Establish LOS B as adequate for Sheriff enforcement officers on San Juan, Orcas, and Lopez Islands.

6. Establish LOS B as adequate for Station Square Feet/Capita on San Juan, Orcas, and Lopez islands.

7. When County Sheriff facilities fall below established LOS standards the following response mechanisms should be considered:

   a. Re-evaluate the LOS standards to determine if it is appropriate. If it is no longer considered appropriate, revise the LOS standards in Policies 5 and 6, above.

   b. Increase County Sheriff facility capacity by:

      (1) Constructing additional County Sheriff facilities; or

      (2) Remodeling existing County Sheriff facilities; or

      (3) Renting, leasing, or purchasing appropriate additional building space.

   c. Decrease demand for County Sheriff facilities and services by:

      (1) Evaluating the goals and policies contained in the Land Use Element and Shoreline Master Program that affect the rate and amount of residential, commercial, recreational, and industrial growth allowed; or

      (2) Implementing public educational programs, such as D.A.R.E.; or

      (3) Implementing crime prevention programs, such as Neighborhood Watch.

3. Public Works

Goal:

To provide adequate building and yard space to facilitate maximum efficiency of public works administration and maintenance functions and the effective provision of public works services.

Policies (7.4.A.3.1-7):

1. County public works facilities should be considered essential public facilities.

2. County public works facilities should be measured separately on San Juan, Orcas, Lopez, Shaw, Waldron, and Decatur islands.

3. The LOS measurement for County public works facilities should be calculated using the following two formulae:

BSF / IR = PWBS

Where

BSF = Building Square Feet

IR = Island Residents

PWBS = Public Works Space

A / IR = PWA

where

A = Acreage

IR = Island Residents

PWA = Public Works Acreage

4. LOS standards for County public works facilities are listed in Tables 10, 11, 12, 13, 14, 15, below.

Table 10. LOS for San Juan Island Public Works Facilities.

LOS Measurement	Level of Service (LOS) Standards					
	A	B	C	D	E	F
Building Square Feet per Capita	>1.75	1.75	1.70	1.65	1.60	<1.60
Acreage per Capita	>.0020	.0020	.0015	.0010	.0005	<.0005

Table 11. LOS for Orcas Island Public Works Facilities.

LOS Measurement	Level of Service (LOS) Standards					
	A	B	C	D	E	F
Building Square Feet per Capita	>2.55	2.55	2.50	2.45	2.40	<2.40
Acreage per Capita	>.0016	.0014	.0012	.0010	.0008	<.0008

Table 12. LOS for Lopez Island Public Works Facilities.

LOS Measurement	Level of Service (LOS) Standards					
	A	B	C	D	E	F
Building Square Feet per Capita	>3.00	3.00	2.90	2.80	2.70	<2.70
Acreage per Capita	>.0018	.0018	.0016	.0014	.0012	<.0012

Table 13. LOS for Shaw Island Public Works Facilities.

LOS Measurement	Level of Service (LOS) Standards					
	A	B	C	D	E	F
Building Square Feet per Capita	>9.00	9.00	8.00	7.00	6.00	<6.00
Acreage per Capita	>.005	.005	.004	.003	.002	<.002

Table 14. LOS for Waldron Island Public Works Facilities.

LOS Measurement	Level of Service (LOS) Standards					
	A	B	C	D	E	F
Acreage per Capita	>.004	.004	.003	.002	.001	<.001

Table 15. LOS for Decatur Island Public Works Facilities.

LOS Measurement	Level of Service (LOS) Standards					
	A	B	C	D	E	F
Acreage per Capita	>.075	.075	.070	.065	.060	<.060

5. Establish LOS B as adequate for Public Works building square feet on San Juan, Orcas, Lopez, and Shaw islands.

6. Establish LOS C as adequate for Public Works acreage on San Juan, Orcas, Lopez, Shaw, Waldron, and Decatur islands.

7. When the LOS for County public works buildings and grounds falls below the established LOS initiate response mechanisms as follows:

a. Re-evaluate the LOS standard to determine if it is appropriate. If it is no longer considered appropriate, revise the LOS standards in Policies 5 and 6, above.

b. Increase County public works facility capacity by:

(1) Contracting with the private sector to provide additional capacity.

(2) Constructing or purchasing additional County public works building space or acreage; or

(3) Remodeling existing County public works facilities; or

(4) Renting, leasing, or purchasing appropriate building space or acreage; or

(5) Implementing flextime, evening, and night shifts to use existing facilities more efficiently.

4. County Parks and Recreation

Goal:

To provide residents with a range of recreational opportunities that are in keeping with the character of the islands.

Policies (7.4.A.4.1-9):

1. County parks and recreation facilities should be measured on each of the four ferry-served islands.

2. The County should strive to serve the recreational needs of residents.

3. The County should review and revise as necessary its adopted Parks and Recreation Plan at least once every six years and should regularly attempt to determine recreational needs on each of the major islands and to evaluate existing recreational facilities in terms of their ability to respond to those needs.

4. The County should acquire and develop appropriate property, as needed to meet the County's current and anticipated recreational needs.

5. The County should consider the plans and programs of local, state, and federal jurisdictions and agencies when formulating its own plans and programs, and should cooperate with such agencies to improve County residents' recreational opportunities.

6. The LOS measurements for County parks and recreation should be as follows:

- Acres of Park per Capita
- Number of Public Beach Access Points per Capita
- Number of Boat Launches per Capita
- Number of Day Use and Overnight Camping Sites per Capita
- Miles of Developed Hiking Trail per Capita

7. LOS standards for park and recreation facilities and opportunities are listed in Tables 16, 17, 18, and 19, below (see Appendix 7 for existing facility capacity).

<see original document for tables>

8. Establish LOS B as adequate for County park acreage, beach access points, boat launches, day use sites, camp sites and hiking trails.

9. When facilities fall below established LOS standards initiate response mechanisms as follows:

a. Re-evaluate the LOS standard to determine if it is appropriate. If it is no longer considered

appropriate, revise the LOS standards in Policy 8, above.

b. Increase park and recreation facility capacity by:

(1) Encouraging the development of private recreational facilities which meet County park and recreation goals; or

(2) Working with private property owners to allow public recreation opportunities on the shoreline; or

(3) Acquiring and developing appropriate properties for new parks; or

(4) Developing additional facilities at existing County Parks; or

(5) Developing County road-ends with marine recreation potential; or

(6) Acquiring appropriate shoreline properties for public access to marine waters; or

(7) Acquiring and developing access to existing public shorelines; or

(8) Work with other public agencies to increase recreation opportunities on the shoreline; or

(9) Identify bicycle and pedestrian lanes and roadside rest areas on appropriate County roads.

(10) The County Parks and Recreation Board should investigate methods of identifying and acquiring trails and easements exclusively for recreational pedestrian and equestrian use. Trails should be mapped in a recreational plan and maps should updated periodically.

c. Decrease demand for park and recreation facilities by:

Evaluating the goals and policies contained in the Land Use Element and Shoreline Master Program that affect the rate and amount of residential, commercial, recreational, and industrial growth allowed.

7.4.B Public Schools

Goal:

To ensure that school-age residents have adequate public school facilities and healthy learning environments.

Policies (7.4.B.1-8):

1. Public school facilities should be considered essential public facilities.

2. The LOS standards and measurements for public schools on San Juan, Stuart, Orcas, Waldron, Lopez, Decatur, and Shaw islands should be determined by each individual school district. These public schools are unique and have special needs that only the specific school districts can address.

3. If impact fees are to be collected, each school district must develop a cost analysis for providing public education in their respective district and develop a program with the County to establish the fee to be collected through the land development process.

4. If impact fees are to be collected, residential land development should be required to contribute to the provision of public school facilities.

5. Independent school districts should provide the County with public school facility needs on an annual basis.

6. Established LOS standards for public school facilities in each of the school districts should be included in this element.

7. The following response mechanisms should be considered by individual school districts if school facilities fall below established LOS standards:

a. Re-evaluate the LOS standard to determine if it is appropriate. If it is no longer considered appropriate, then school districts should work with the County to revise the LOS standards.

b. Increase County public school facility capacity by:

(1) Purchasing additional acreage for new school facilities and/or for new athletic fields; or

(2) Constructing additional public school facilities; or

(3) Remodeling existing public school facilities; or

(4) Renting, leasing, or purchasing appropriate additional building space; or

(5) Implementing new scheduling strategies to use existing public school facilities more efficiently.

8. When the school districts have established their LOS standards the County and school districts should consider adopting a concurrency management ordinance which would prohibit new development approval if the development causes the LOS for public school facilities to decline below the adopted LOS standard, unless improvements or strategies to accommodate the impacts of development are made concurrently with the development.

7.5 GOALS AND POLICIES FOR OTHER CAPITAL FACILITIES AND SERVICES

There are a number of other facilities and services important to county residents which are owned or operated by independent taxing districts, and public or private service organizations. The County does allocate funding to some of these providers through hotel/motel taxes but has no policy or budget authority over them. They are not subject to level of service or concurrency standards. However, sentiments expressed in the Vision Statement establish the significance of these services and facilities to island communities. Therefore, the County has established general goals and policies for these facilities, and baseline level of service information is provided for future planning purposes.

7.5.A Medical Clinics

Goal:

To foster accessible and affordable health care to County residents.

Policies (7.5.A.1-2):

1. Encourage public and private medical clinics to maintain high levels of service.

2. Encourage public and private medical clinics to maintain 1993 baseline facility levels as listed below:

<see original document for tables>

7.5.B Senior Centers

1.37 square feet per capita 1.58 square feet per capita 1.30 square feet per capita

Goal:

To support the provision of Senior Services to County senior citizens.

Policies (7.5.B.1-2):

1. Contribute a portion of funds generated from County hotel/motel taxes for services which are provided through non-profit Senior Centers.

2. The County should be responsive to the facility needs of Senior Service Centers.

7.5.C Public Libraries

Goal:

To foster the availability of public library services to County residents.

Policies (7.5.C.1-2):

1. The County should be responsive to the facility needs of independent library districts.

2. Encourage public libraries to maintain 1993 baseline facility levels as listed below:

<see original document for tables>

7.5.D Museums

Goal:

To support the display of exhibits which highlight the rural and maritime heritage, the natural environment, and marine life of the San Juan Islands at non-profit public museums.

Policy (7.5.D.1):

1. Encourage public museums to maintain 1993 baseline facility levels as listed below:

<see original document for tables>

7.5.E Performing Arts Centers

1.28 square feet per capita 0.72 square feet per capita 0.45 square feet per capita

Goal: To support the provision of performing arts to County residents.

Policy (7.5.E.1):

1. Contribute a portion of funds generated from County hotel/motel taxes to performing arts theater facilities, continue partial ownership in them, and ensure that high levels of service to the community are maintained.

7.5.F Community College and Continuing Education

Goal: To foster continuing education opportunities for County residents.

Policy (7.5.F.1):

1. Encourage educational institutions to develop and expand educational opportunities to County residents of all ages.

7.5.G State, Federal, and Other Public Parks and Recreation Facilities

Goal: To allow park and recreational opportunities which maintain the rural island character and supplement San Juan County Parks.

Policies (7.5.G.1-2):

1. Encourage and work with other agencies to coordinate recreational planning efforts with those of the County Parks Board.

2. Coordinate with the Town of Friday Harbor, the Port District, the School District and the Park and Recreation District in the provision of recreational facilities on San Juan Island.

7.5.H Fire and Emergency Medical Services

Goal: To protect the safety of San Juan County citizens and to promote the maximum efficiency and timely provision of fire and emergency medical services to County residents.

Policies (7.5.H.1-4):

1. Cooperate with Fire and Emergency Medical Service Districts to enhance provision of service by advising new home builders that significant increases in response time for fire fighting equipment to reach structures in times of emergency may result from:

a. Siting homes on steep hills;

b. Creating private roads without sufficient turning radii for fire fighting equipment; and

c. Not clearing brush or maintaining private roads.

2. Establish a baseline LOS measurement for fire and emergency medical services consistent with the Washington Rating and Survey Bureau (WRSB) standards and district ratings. WRSB ratings range from 10, which is an unprotected area, to 1, which is an industrial-municipal fire district with minimal response times and abundant water supplies.

3. Baseline LOS standards for fire and emergency medical services are listed in Table 20, below.

<see original document for tables>

4. Establish LOS C as the baseline for adequate fire and emergency medical services in Fire Districts #2 and #3. Establish LOS D as the baseline for adequate fire and emergency medical services in Fire Districts #4 and #5.

Utilities

Previous Comp Plan Material

See: http://www.sanjuanco.com/DocumentCenter/Home/View/1059

Vision:

> *"Advanced interactive communication systems are encouraged . . . . Our community fosters resource and energy conservation . . . . Energy independence is encouraged."*

Also, for Utilities Inventory and Existing Conditions Appendix, see: http://www.sanjuanco.com/DocumentCenter/Home/View/1068

New Comp Plan Material

The Utilities element home page currently has Appendix 8 *Preliminary Draft Utility Inventory*. See: http://www.sanjuanco.com/DocumentCenter/Home/View/12777

The inventory document reviews:

- Electricity
- Telecommunications
- Cable Services
- Communication Sites and Facilities

Background Narrative

Overview

OPALCO is a member-owned, non-profit rural electric cooperative utility providing energy services to San Juan County since 1937. Last year we delivered about 200 million kWh to about 11,200 members distributed across 20 islands in San Juan County.

Providing affordable reliable energy in our marine environment requires a storm-hardened grid composed of a complex mix of submarine, buried and aerial transmission and distribution cables, with 11 substations and hundreds of grid control elements. Our grid is one of the most complex in the nation, given the small rural island service area.

Energy-related trends and economic impact revolve around a balance of four elements of service:

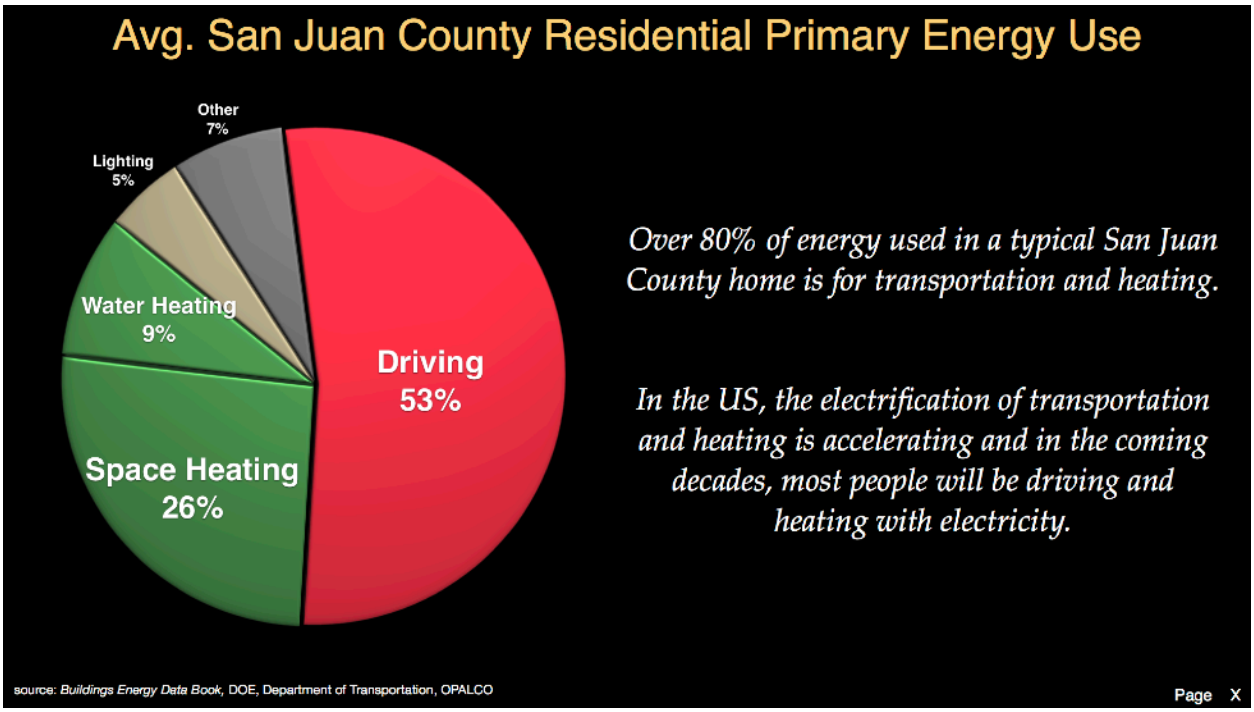
- Price
- Reliability
- Environment/carbon footprint
- Resilience

Surveys among co-op members, as well as other island communities, such as Hawaii, show members want their co-op to balance these elements in roughly the order presented, providing affordable service first, while making it as reliable as possible, taking care of the environment, and increasing local resilient sustainable solutions.

We review each of these elements below, along with applicable trends and economic impact.

Energy Cost

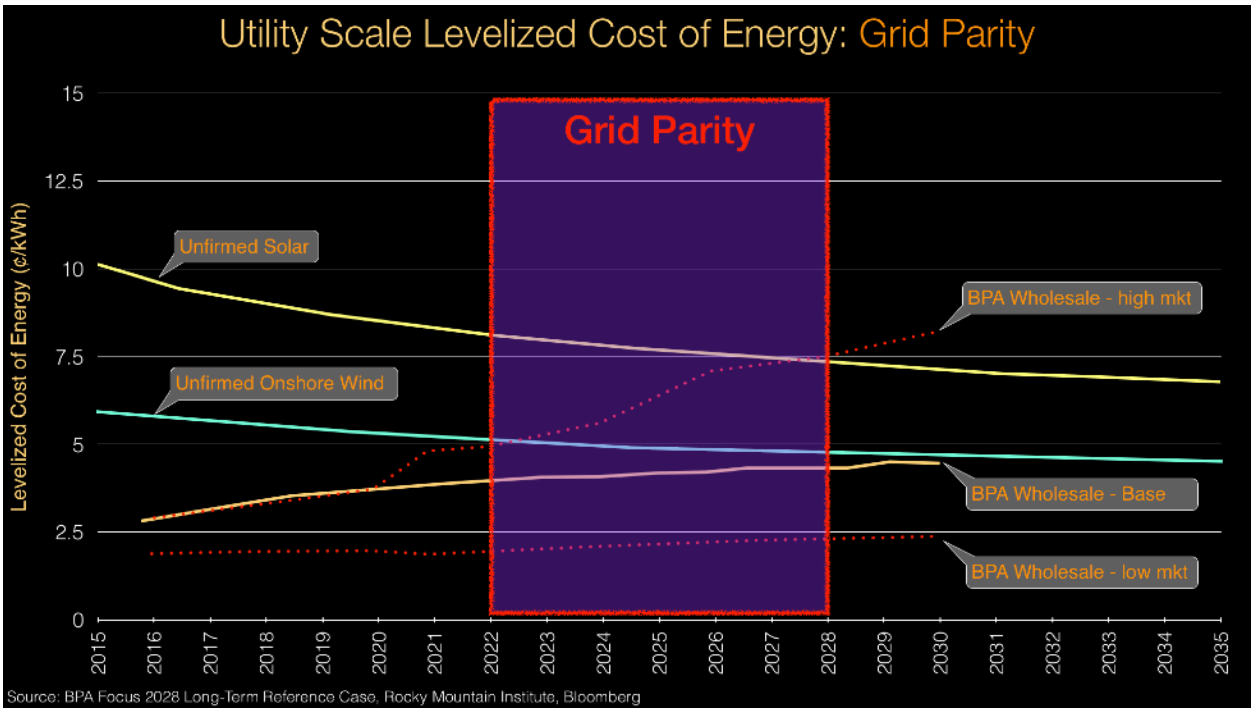
Most energy consumed by islanders is for transportation and heating of space and water.



Compared to the mainland, Islanders often consume a disproportionally high amount of energy because of the nature of our buildings and settlement pattern. It costs a lot more to heat a single-family dwelling with four exposed walls and a roof, than an apartment that loses heat only through one exterior wall. And our low-density housing, spread across the Islands, means that we have a much higher proportion of people who drive compared to an inner-city neighborhood where people can more easily walk, bike, and take transit.

Most of OPALCO energy is purchased from Bonneville Power Administration (BPA). That hydro-based energy is very clean and affordable. It costs about 3.4¢ per kWh, and has a very low carbon footprint – lower than most other energy resources, including solar and wind energy. But the price is slowly increasing. Solar, wind and tidal energy resources are currently more expensive, but their cost of energy is slowly decreasing.

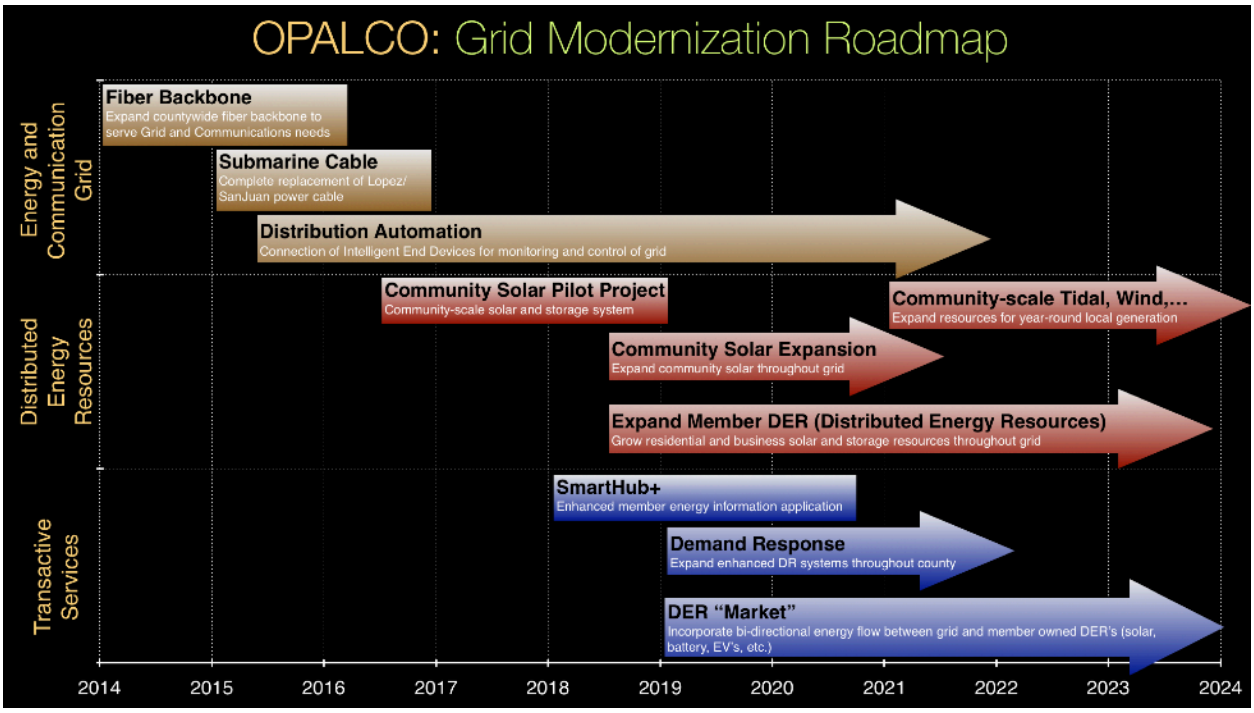
Within the next 8 years, we expect gird parity to occur. This is the point at which the cost of solar, wind and tidal become less than or equal to the cost of hydro.



As we approach grid parity, the adoption of local solar, wind, and tidal energy resources will accelerate. OPALCO has been preparing the grid for grid parity by building out a more intelligent grid, whose elements are interconnected through fiber and LTE wireless networks. This intelligent network helps:

- Improve energy efficiency
- Maintain reliability as more intermittent local energy generators are added to the mix, and
- Enable a transactive energy market, where homes and business shift from being consumers, to also generating energy, for sale to other members

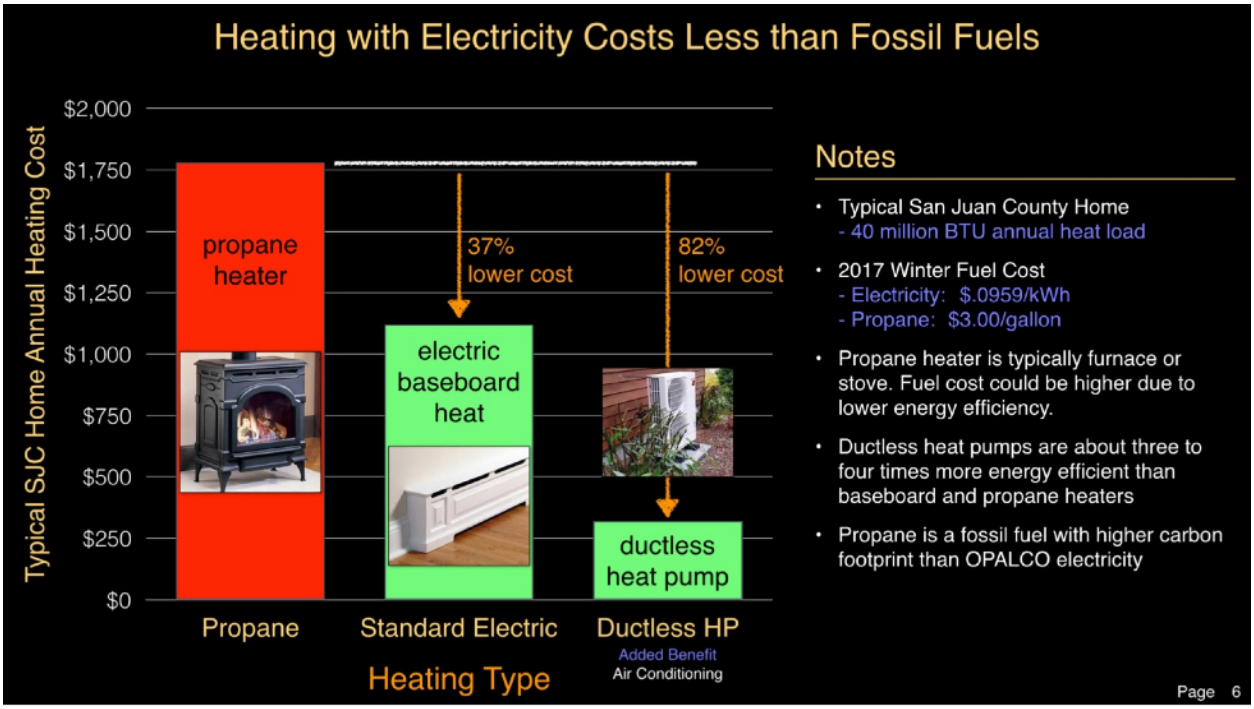
This transactive grid will provide members with new sources of revenue and incentives to increase efficiency and local energy production. The transactive grid is a major milestone along OPALCO's grid modernization roadmap (see chart below), which started back in 2000, with the laying of our first fiber optic cable, and accelerated as we replaced mechanical meters with automatic meters that help members see hourly energy usage, and improve their efficiency.



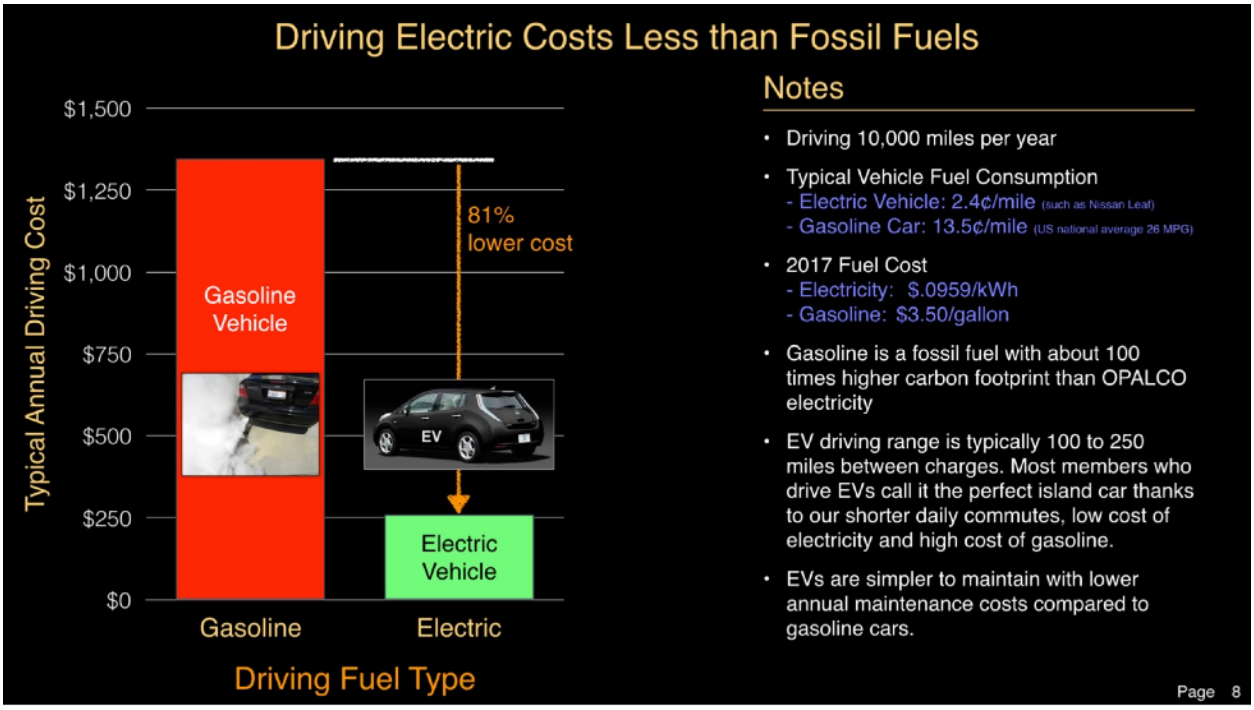
Since then we have added hundreds of intelligent grid control elements that allow for a more adaptive grid. An adaptive grid is a more resilient grid, in the presence of outages. In time, the grid will become self-healing and capable of balancing the increased local intermittent energy production, using "firmer" power from BPA to backfill fluctuations in local production.

Co-op member energy bills will also be reduced as homes and businesses transition to super efficient heating and transportation.

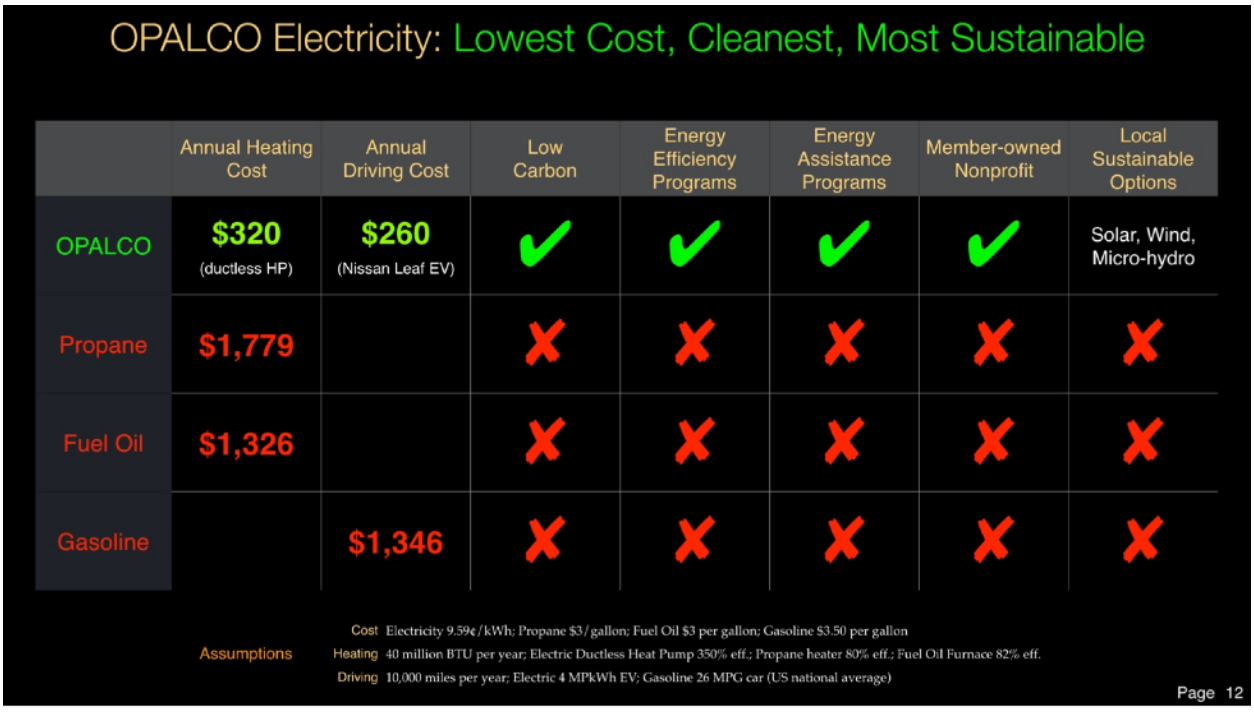
This electrification of heating and transportation program helps members achieve significant reduction in TOTAL energy consumed, and hence cost and carbon footprint. This next chart shows the cost savings for space heating, for a typical 40 million BTU annual heat load.



This next chart shows the cost savings for driving, for a typical EV 10,000 mile per year compared to a US average 26 MPG gasoline powered car.



Taken together, the cost savings from switching to efficient electric heating and transportation can help our members save well over $1,000 per year (see chart below).

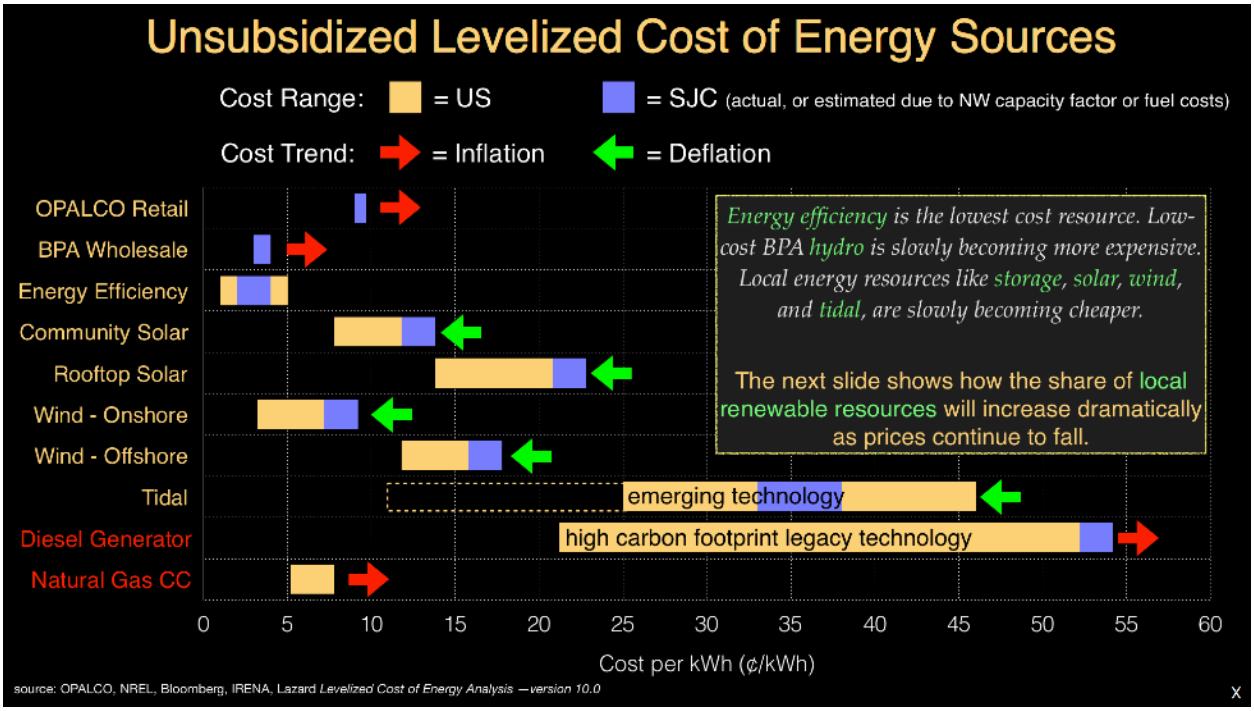


The economic benefit to the local economy should not be underestimated. In time, as this transition fully unfolds, 10,000 members, each saving $1,000 or more dollars per year, will put over $10 million per year back into the local economy.

This transformation from fossil fuel to electric forms of transportation and heating will substantially reduce carbon emissions and have a beneficial impact on the county economy - energy dollars will stay in the county, rather than flowing to mainland fossil fuel companies. And much less energy will be needed for the same level of heating and transportation, thanks to the roughly 4 times improvement in efficiency of electric heat pumps and electric vehicles (EVs).

Efficiency allows homes, business and government to do more with less, for less.

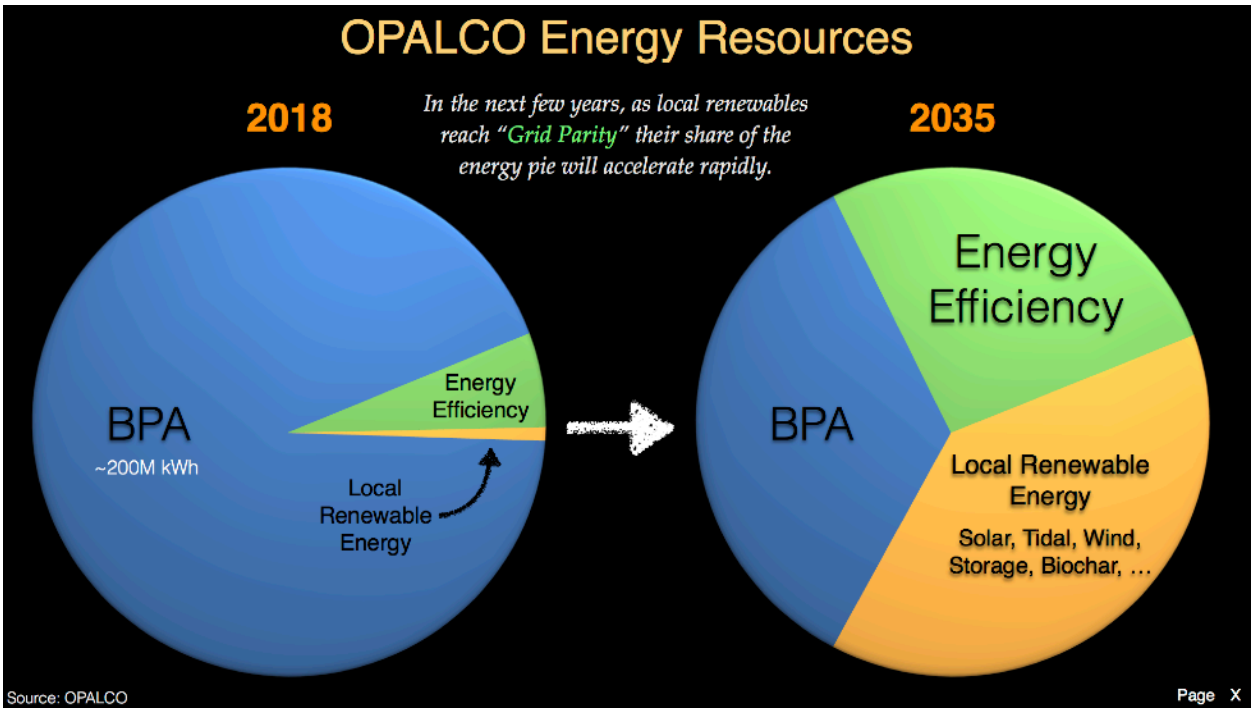
As price of energy is a major driver of energy transitions, it is important to call out the importance of Energy Efficiency and Conservation (EE&C), the low cost local energy of choice (see chart below)



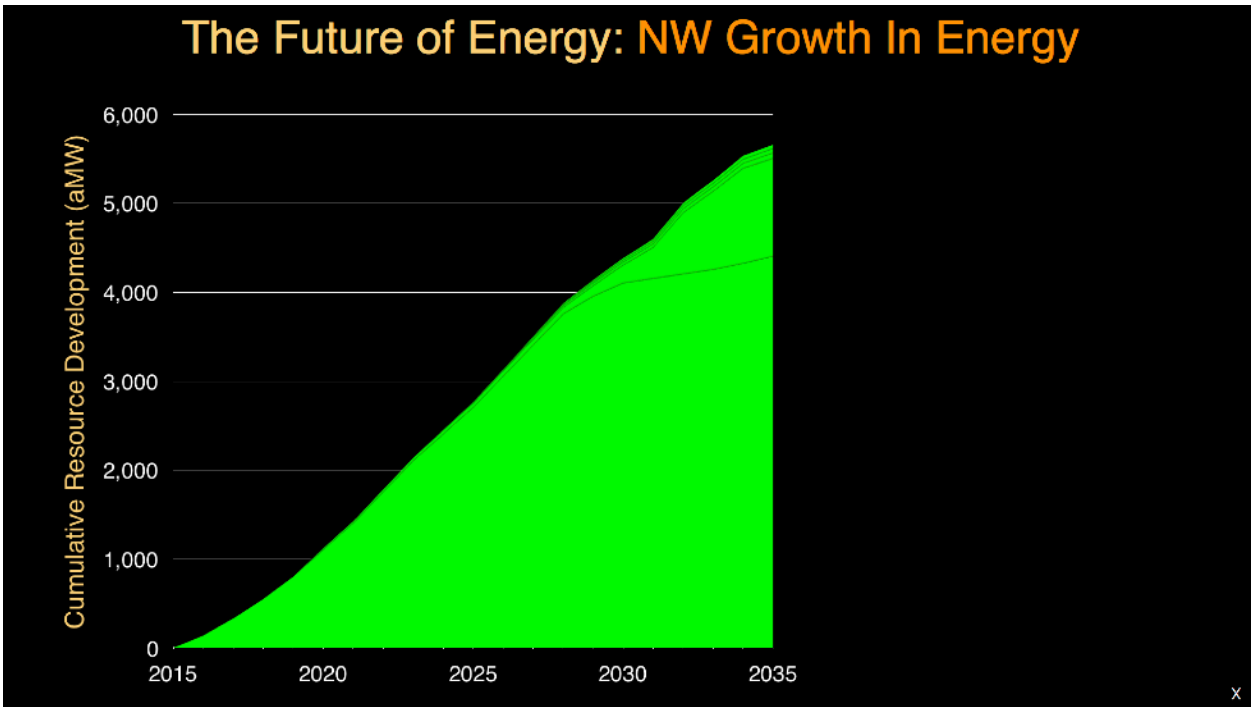
It's important to note how Energy Efficiency is one of the lowest cost resources. Though not as visible as solar panels on a roof, or wind generators on a hilltop, energy efficiency is a core strategic component of keeping prices low and reducing the need for more expensive forms of energy generation.

Because energy efficiency is lower cost than solar, wind, tidal and other local renewable energy options, homes and businesses tend to lead with EE&C measures. The transition to local renewable energy is accelerated by the uptake of energy efficiency measures. Energy saved and energy waste reduced, means less energy resources needed to be developed, which means less capital expenditure.

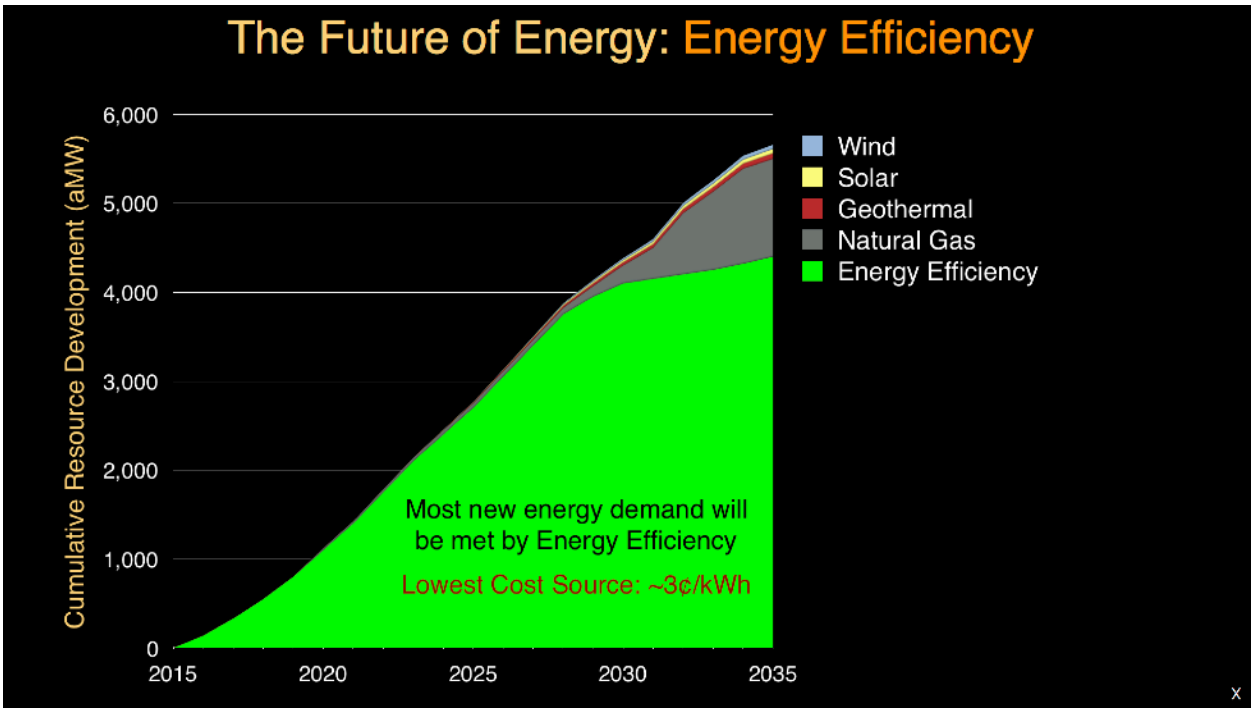
In the chart above, note how EE&C is and will remain a substantial source of savings.



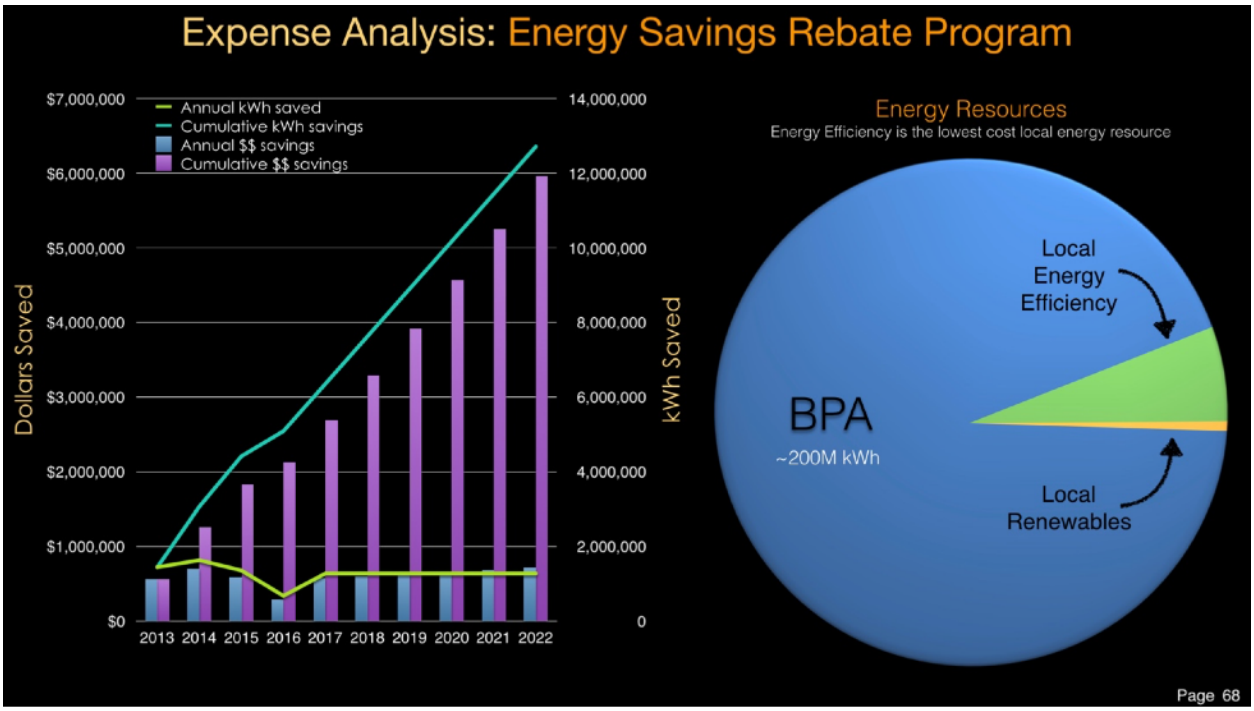
Here's a picture of the expected demand for energy in the Northwest.



In the next chart, note how most of that energy is expected to be met by energy efficiency.



OPALCO has a long track record of helping members save energy, through extensive rebate and informational programs.



To increase local resilience (discussed below), we can become largely energy neutral by 2050, essentially by using efficiency measures to reduce overall energy consumption by 50%, and then generating this energy from renewable sources such as wind turbines. Achieving these ambitious targets presents complex challenges that would involve a significant commitment, but if the community chooses to do this, it is within our reach.

Reliability

Members want their energy to be reliable. When power is out, it has real impact - on safety and the economy. For the past few decades, OPALCO has steadily undergrounded electrical distribution to storm-harden the grid.

Energy is cheap, reliability is expensive. The Department of Energy Interruption Cost Estimate (ICE) Calculator estimates that each power outage in San Juan County costs islanders (residential and commercial) about **$4 million per typical outage event**. Investing in local energy resilience is invaluable.

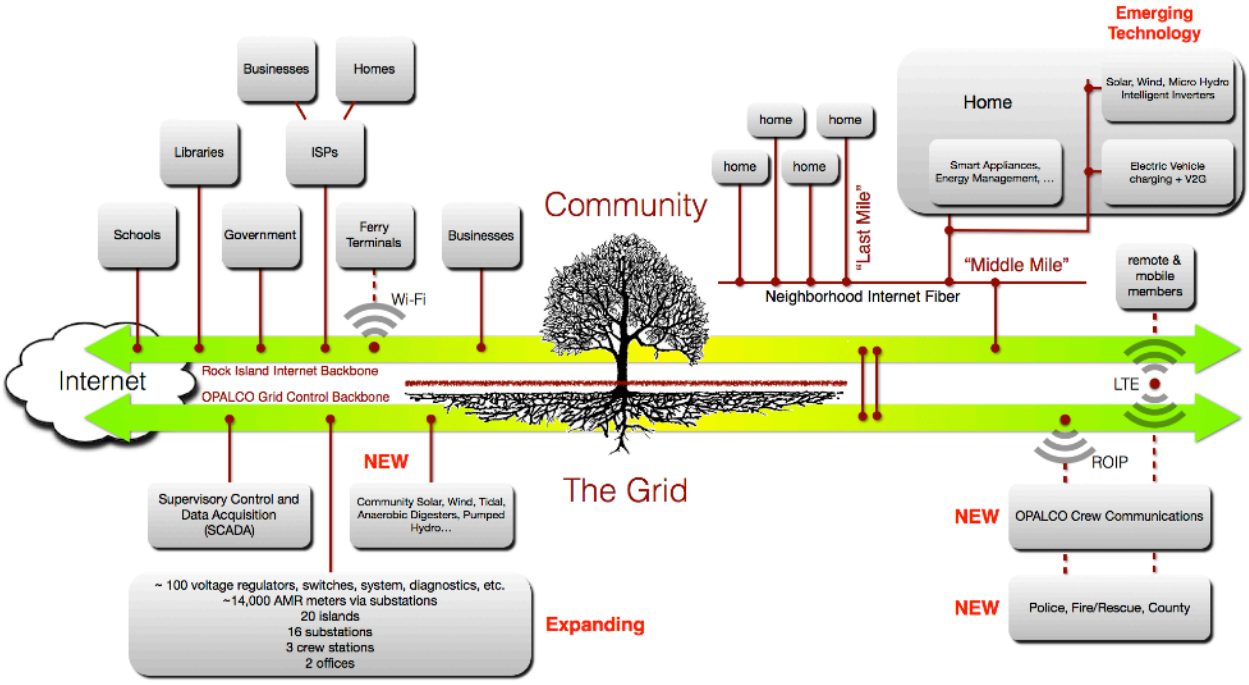
As we increase the share of intermittent local renewable energy, we expect to incorporate more storage and intelligent inverters to maintain reliability. We will also continue our grid modernization process to make the grid more resilient, self healing and micro-gridable to adapt to outages. Micro-grids help town centers continue to function in the presence of extended outages, sourcing power from a integrated solar and storage systems.

As we transition to increased local renewable energy, we have been preparing the grid for increased intermittency of those resources. The grid must accommodate the interconnection of more and more utility and member energy systems and manage them to maintain stable voltage and frequency characteristics.

In the time horizon of the next Comp Plan, a wealth of home devices will part of the extended grid, including intelligent inverters, smart appliances and thermostats, demand response water heaters, electric vehicles with Vehicle to Grid interfaces that allow members to use their car battery to store and sell energy back to the grid.

Since the last comp plan, the “grid” has evolved significantly - power and communications systems are inseparable. All the grid control elements, the substations, SCADA control system, switches, field crew iPads, submarine cables, etc., are all interconnected via fiber and wireless infrastructure, carrying both data and voice traffic. The modern grid is now POWER and COMMUNICATION, tightly coupled and inseparable. “It’s all connected.”

As the diagram below shows, grid control, crew voice and data communications, emergency services voice and data communications, local distributed renewable energy systems, appliances, EV two-way battery systems, community solar, wind and tidal systems, all are part of a modern intelligent grid.

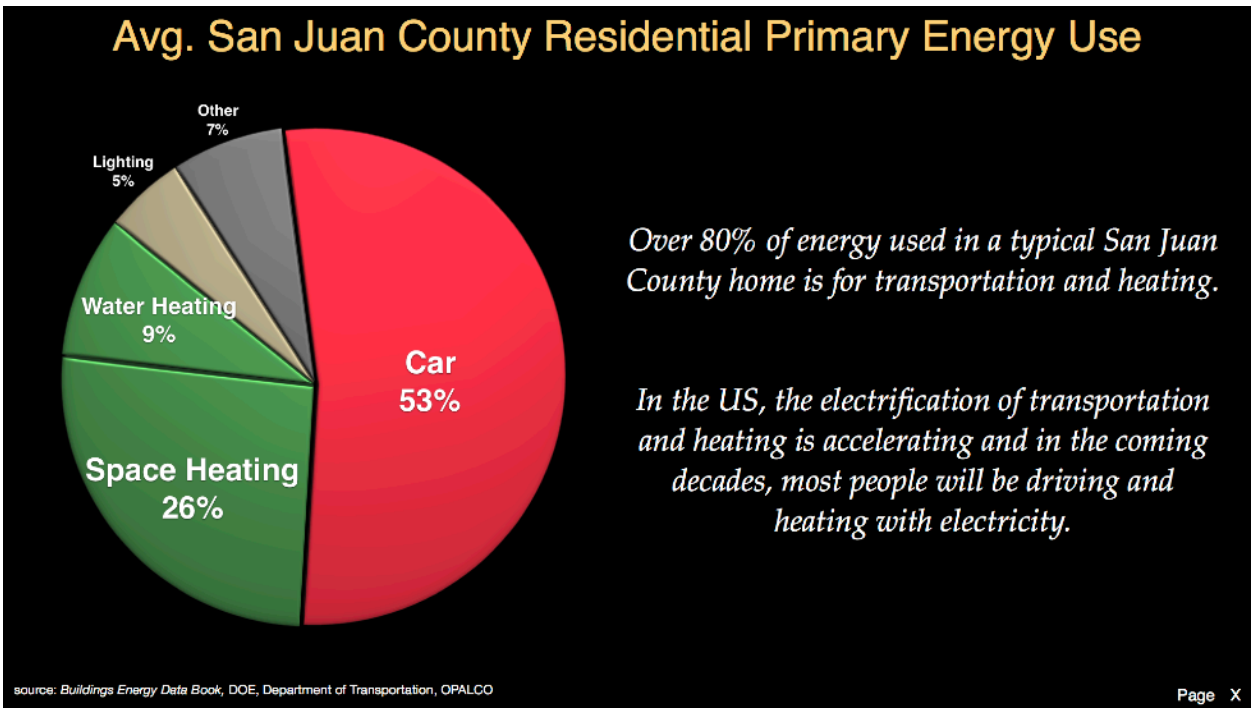


The grid becomes much more dynamic and interactive. Though the standards of communication between these devices are still being established, they will be a factor, well within the Comp Plans horizon.

Environment/Carbon Footprint

Climate change and the impact on local, regional and global level is catalyzing a remarkable shift in how homes and businesses think about energy. To understand this shift, and bring it down to the local level, let's look at how we use energy in this county.

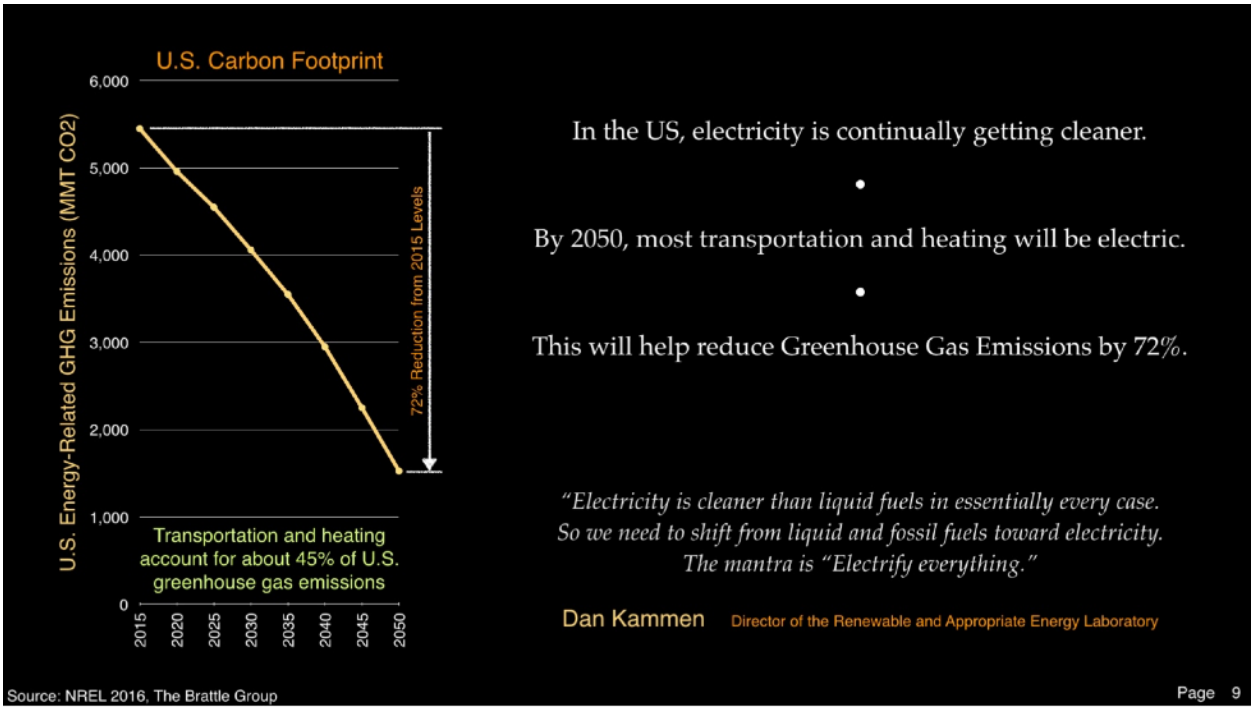
As mentioned above, most the energy in the county is used for just two things - transportation and heating. Over half of the energy consumed in the county is for transportation. See chart below.



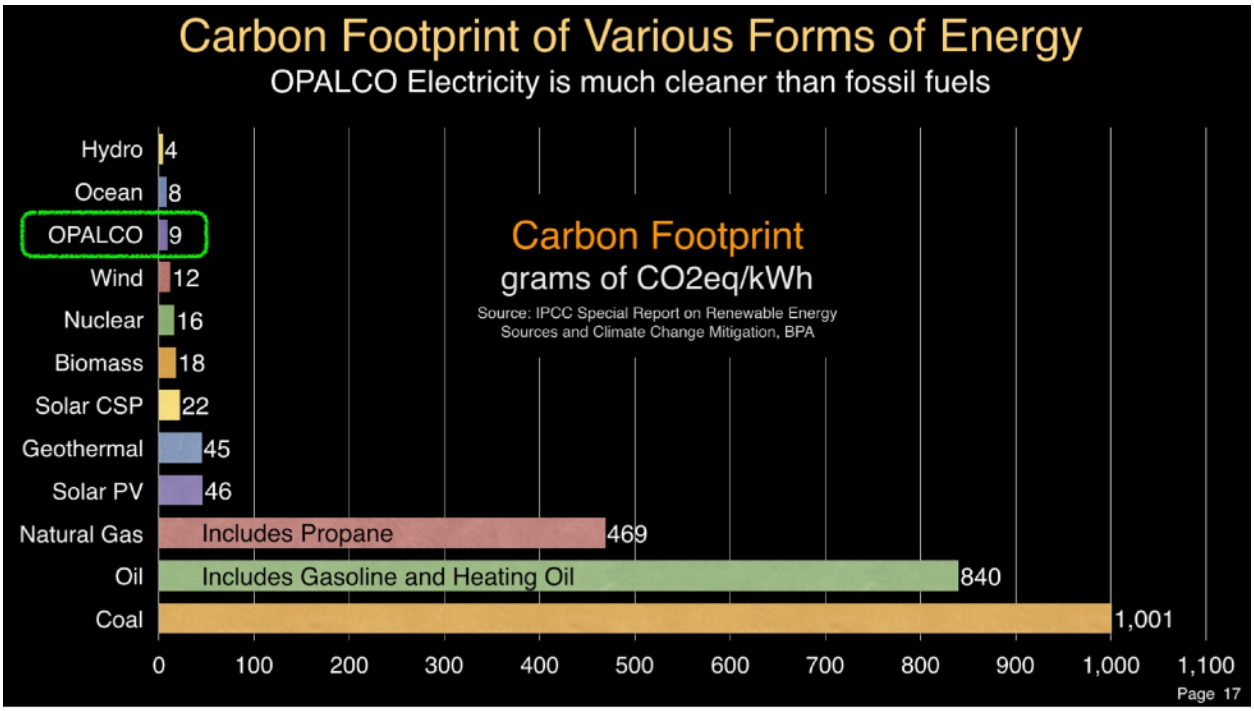
In OPALCO's service area, by 2035, most heating and transportation will be electric. That's because electric heating and transportation is much more efficient, lower cost, and cleaner than fossil fuels.

Referring to the figure above, over 80% of energy in OPALCO's service area is consumed for heating and transportation. This includes electricity, propane, heating oil, and wood for heating, and electricity, gasoline and diesel for transportation.

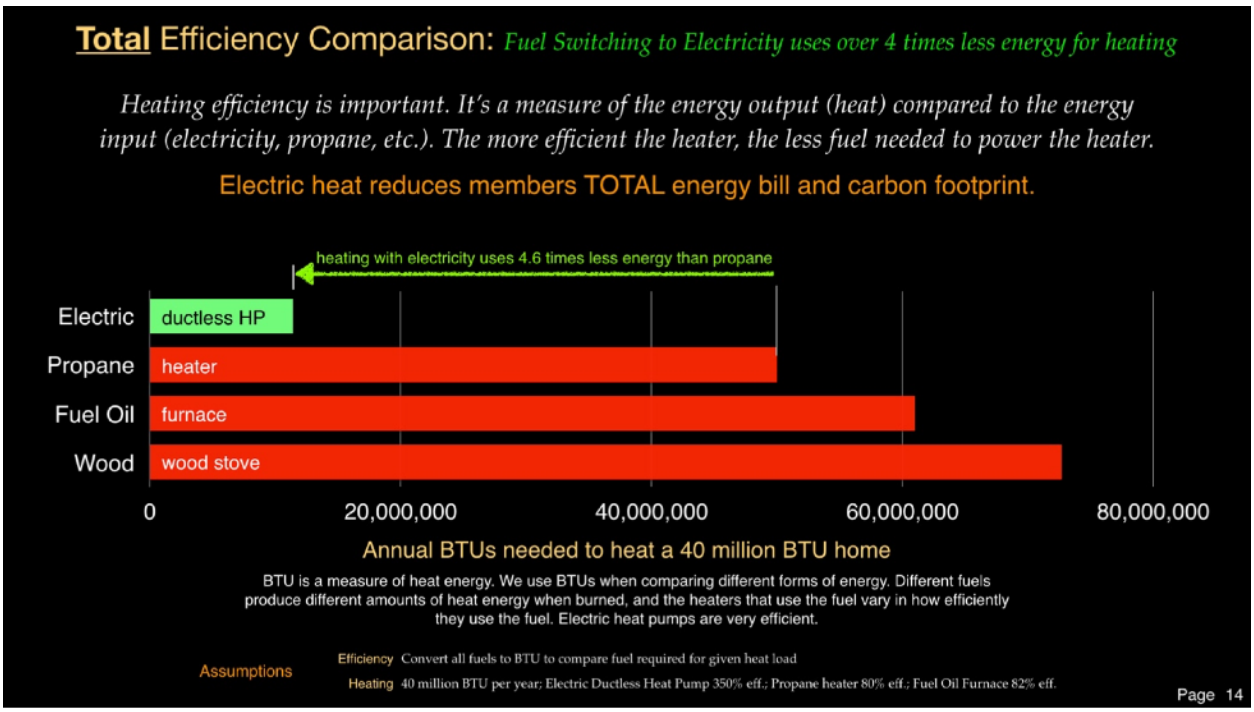
The electrification of heating and transportation is happening across the US. According to estimates from the Brattle Group, US Greenhouse Gas (GHG) Emissions can be reduced by 72% by 2050 due to this electrification of heating and transformation (see chart below).



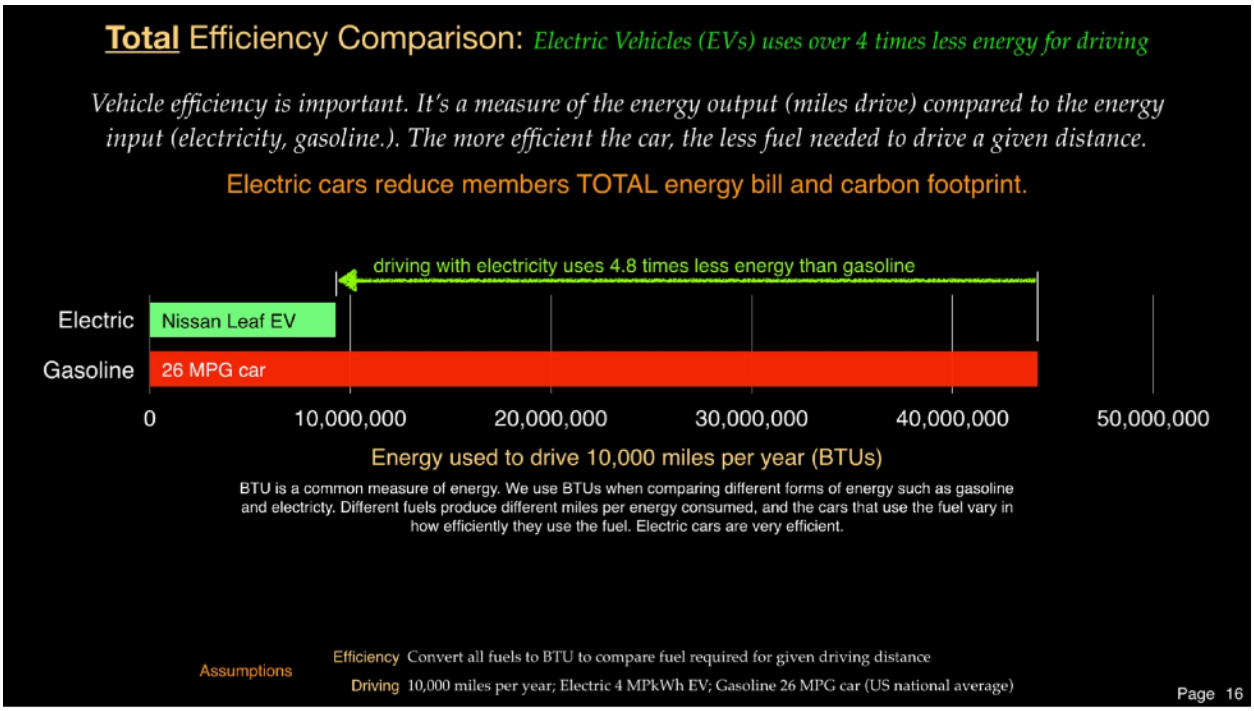
In the OPALCO service area, because electricity is largely very clean hydro-based, the GHG emissions reductions would be even more significant (see chart below).



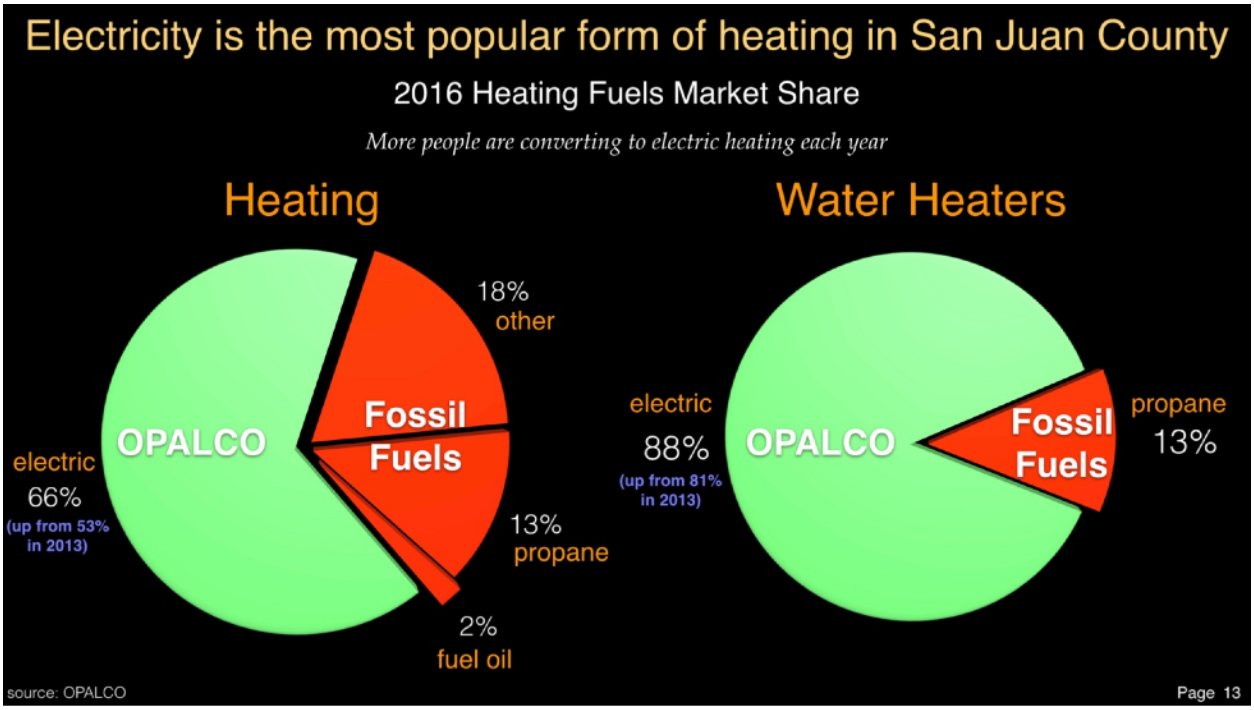
These reductions in energy consumption, cost and carbon footprint are possible due to the very efficient nature of heat pumps and EVs. Heat pumps are over four times more efficient than typical fossil fueled heaters (see chart below).



And EVs, similarly, are also over four times more efficient (see chart below).



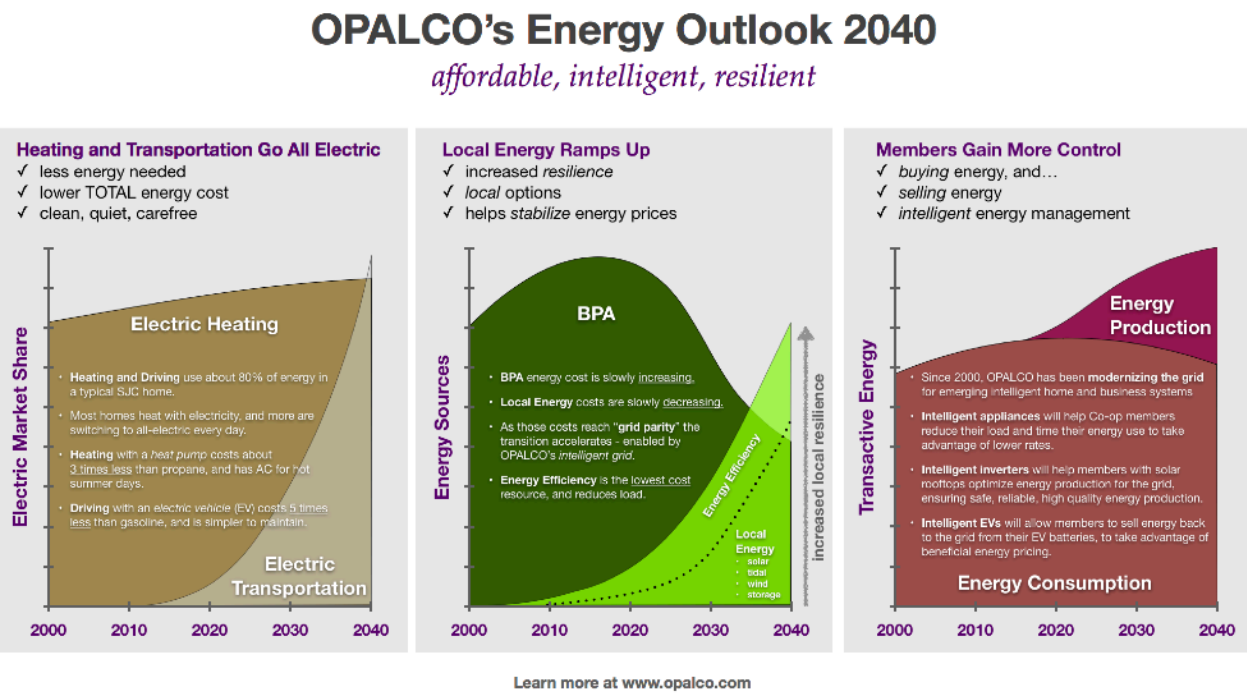
These kinds of cost and emission reductions are important to OPALCO members. Today, members choose to heat with clean low-cost electricity over fossil fuels, as the chart below shows, and market share is increasing, thanks particularly to the cost advantages (see price section above).



Local Resilience

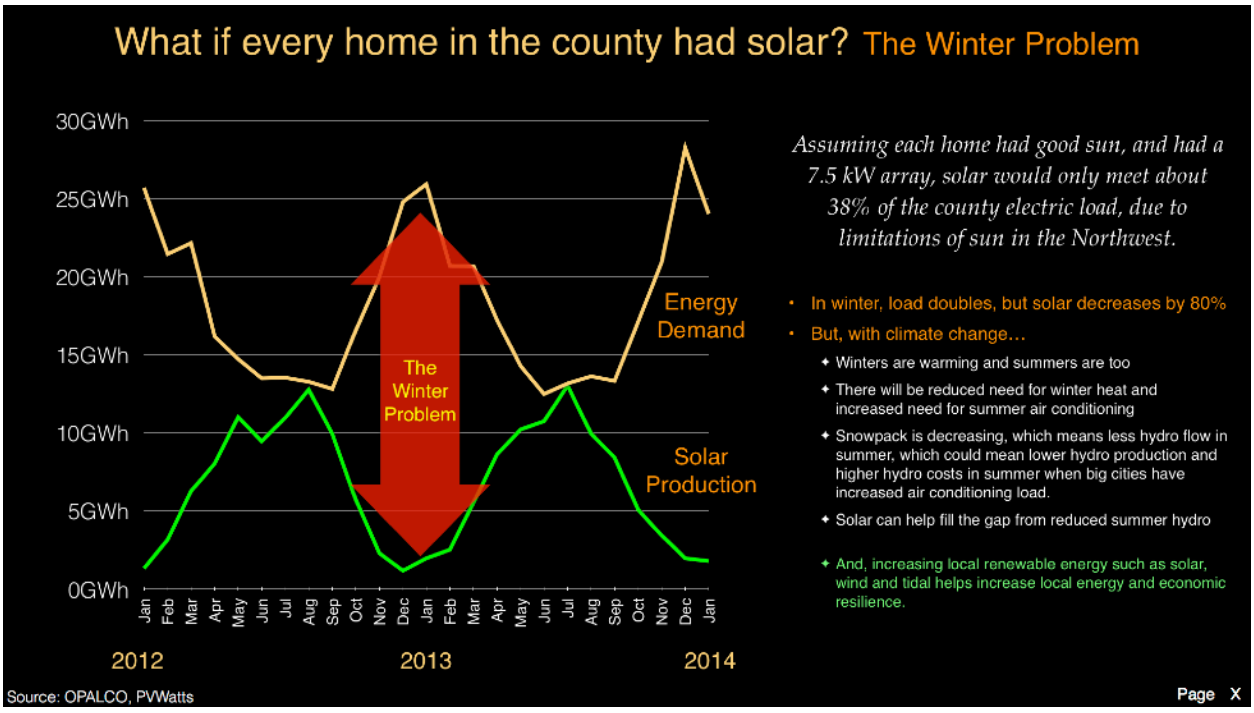
As mentioned in the Price section above, the transition to increased local renewable energy will accelerate as we approach grid parity.This will have the benefit of reducing our dependance on the mainland for power. The combination of local renewable energy, coupled with storage systems and managed by an intelligent grid, will increase local resilience and moderate inflation of the cost of BPA energy.

As local energy ramps up, we reduce the amount of electricity we import from the mainland (see chart below).

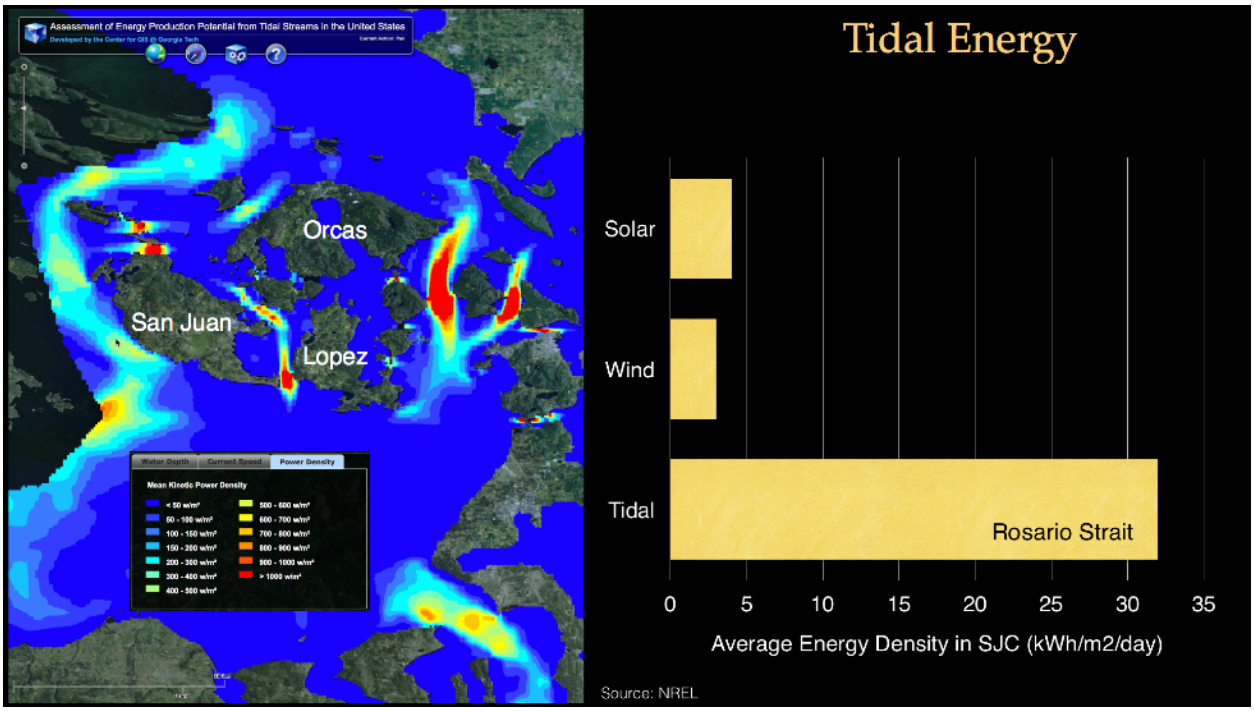


Local energy will come from a variety of sources (solar, wind, tidal, biomass, fuel cells, etc.). Tidal is abundant, year round, but currently expensive. Solar is currently lower cost, but output is limited at night and in the winter. Wind is limited in treed environment, but fairly strong on mountain tops and offshore.

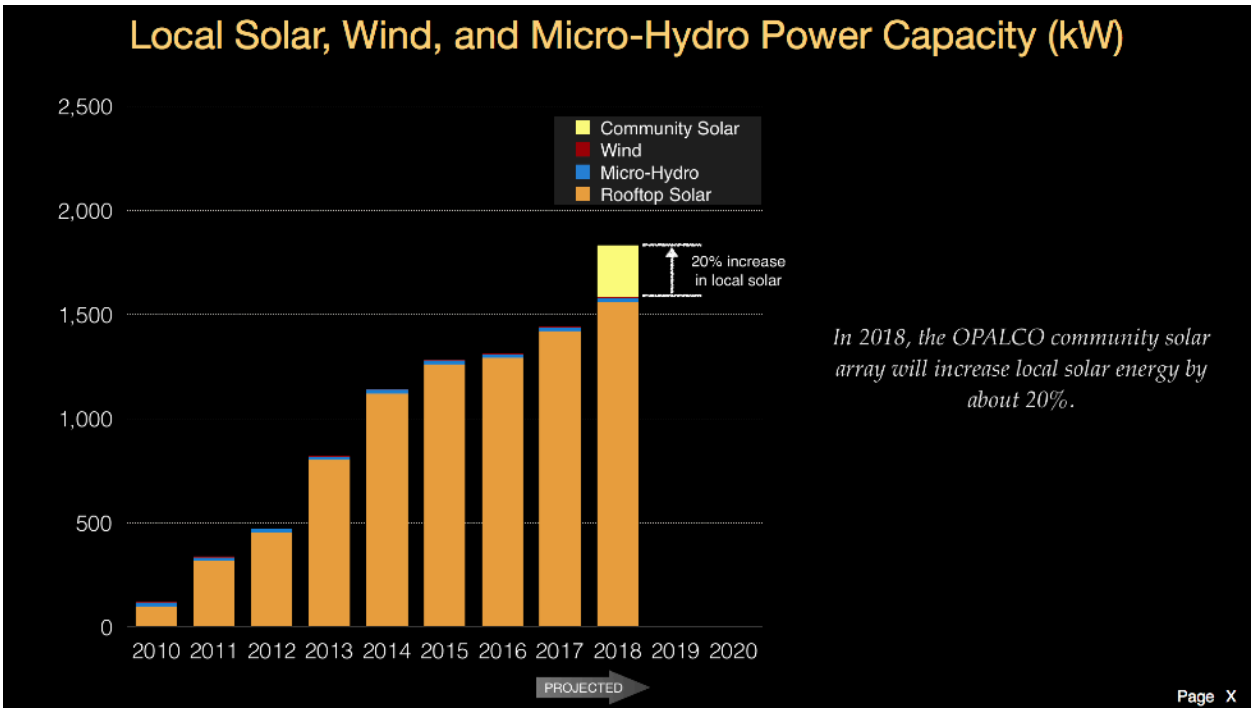
It is entirely feasible to pursue a goal of producing 20 percent or more of our energy locally, within a few years of achieving grid parity. But it must be done in a way that addresses some of the demanding aspects of Northwest seasonality. The chart below shows how county energy demand doubles in the winter, driven primarily by heating. But, as is the nature of gray Northwest winters, solar output falls to a fraction of summer months - about an 80% reduction.



If local energy resilience is a priority, energy sources, such as tidal and wind power, that are strong in winter, need to be understood. Tidal energy is to the Northwest as solar is for the Southwest. The University of Washington Northwest National Marine Renewable Energy Center is exploring tidal energy potential in our region. While tidal energy is abundant (see chart below), as with any energy, there are pros and cons. UW is exploring the impact on marine ecology, and ways to optimize tidal energy generation, while minimizing environmental impact.

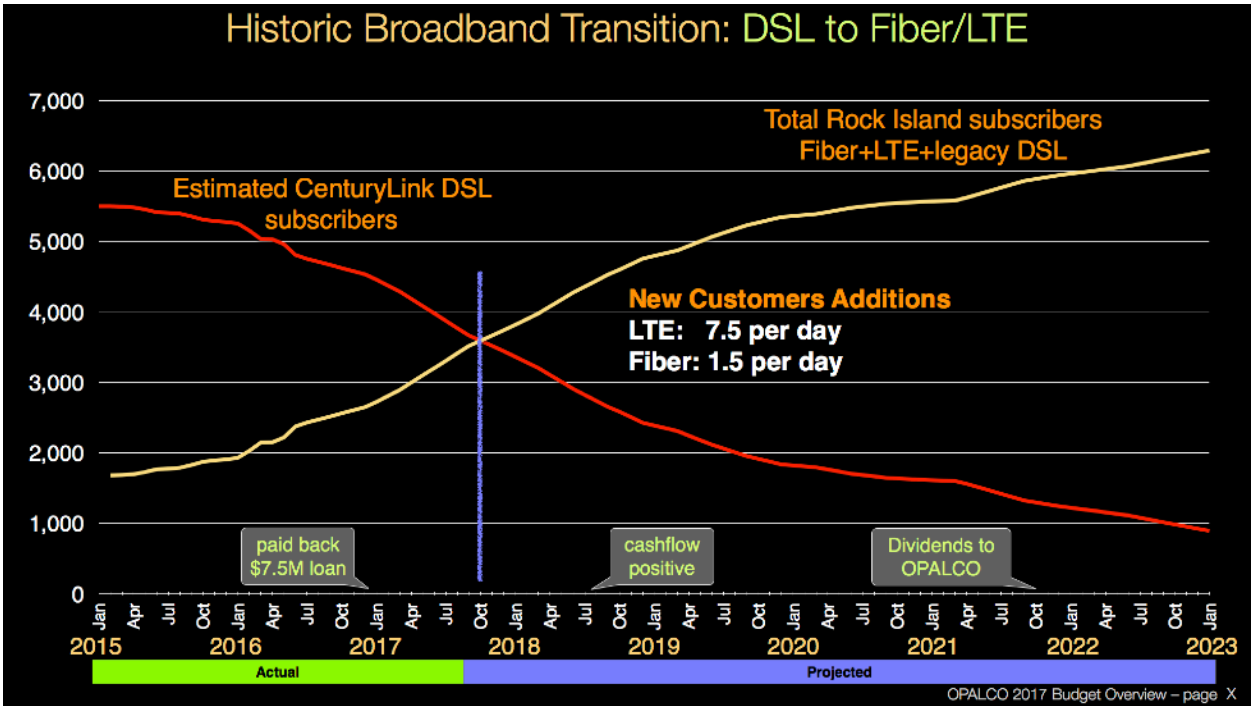


One element that will play a major role in local energy generation is Community Solar. It's a community-owned solar array, shared by many homes and businesses, optimally sited to maximize sun exposure. OPALCO is in the planning stages for the first community solar array, to be built in 2018. In time, OPALCO will deploy more community solar arrays, coupled with grid-scale energy storage, configured as micro-grids, to further improve local resilience and support critical services during outages, such as public safety, medical centers, grocery stores, etc..

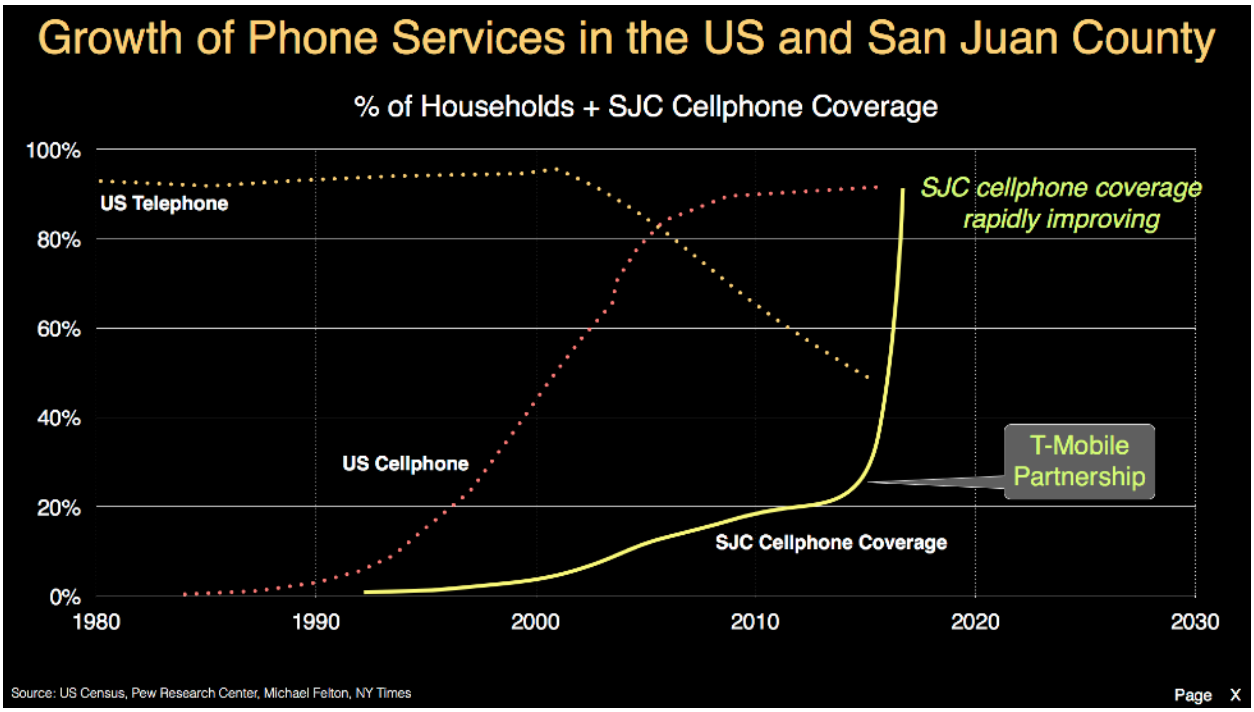


Internet

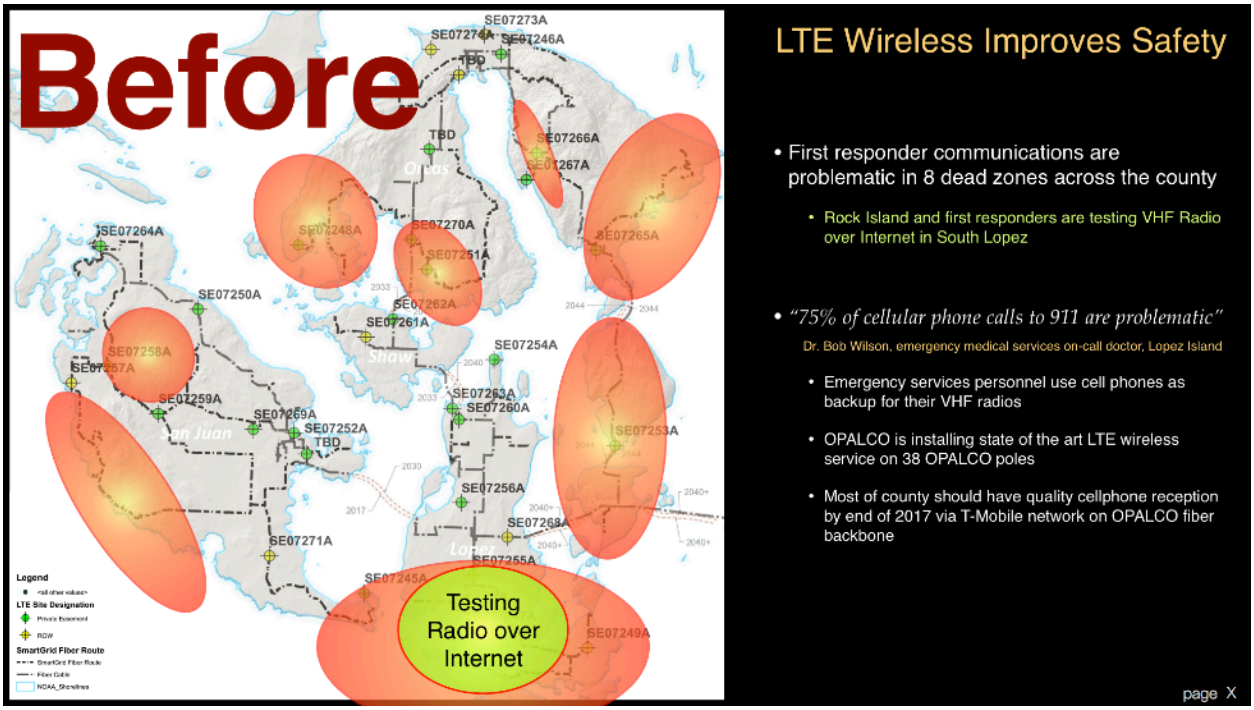
As discussed above, the modern grid is an inseparable combination of power and communication facilities. OPALCO, and it's subsidiary Rock Island, recently surpassed CenturyLink as the number one provider of internet services in the county.



Partnerships with T-Mobile have enabled very rapid buildout of LTE wireless infrastructure on top of OPALCO's fiber grid control backbone. This has significantly improved crew, first responder and islander communications in the county (see chart below).

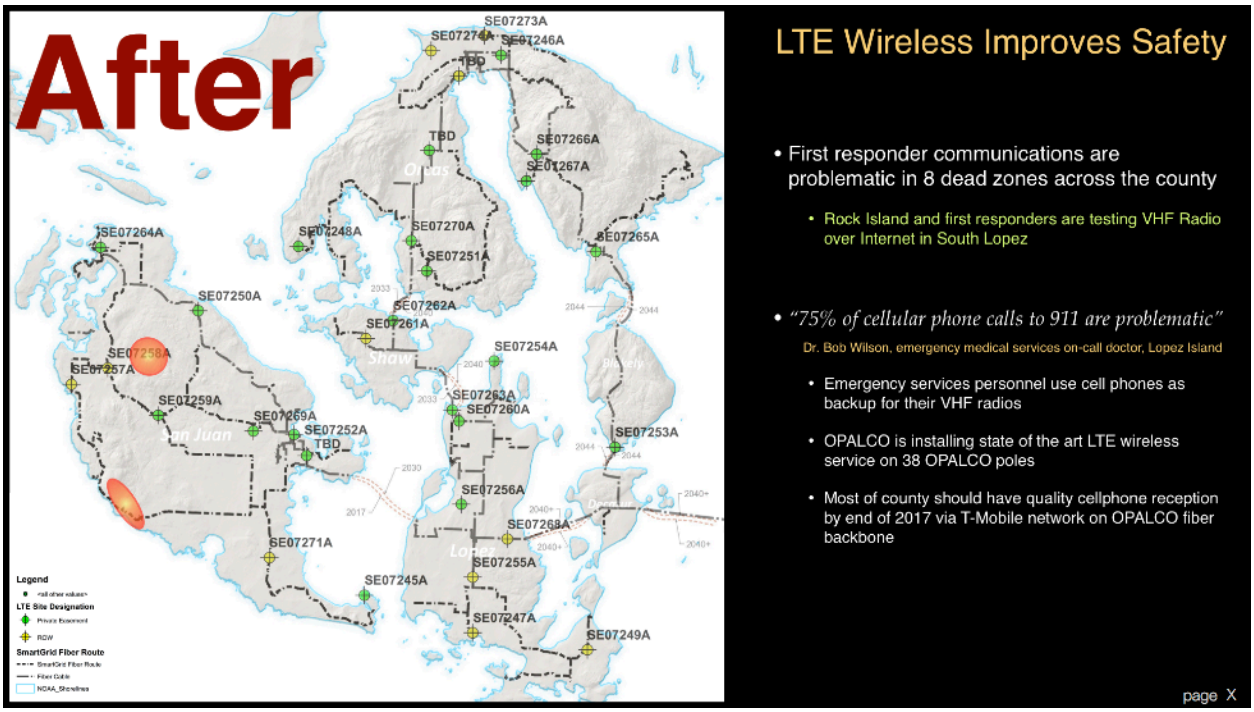


First responder communications have been limited by the hilly and wooded nature of the county topography (see orange communication dead zones in chart below).



Now, with approaching 40 poles of LTE wireless, interconnected with OPALCO and Rock Island fiber grid control backbone, communication dead zones have been significantly reduced.

Fast reliable communication and internet facilities and services are essential to the economic and social wellbeing of the County. They are as important as electricity. They are an **essential public service**.



Fast reliable internet and communication services facilitate remote work and telecommuting. A small but growing number of Island professionals work "freelance" or for a remote employer via computer, telephone, and occasional off-Island travel. This is a growing national trend that supports the kind of higher-paying professional work needed to afford life on in the Islands. The county has many attractions for this kind of work and could develop this sector with greater intentionality.

County communication and internet services are the fabric of county energy and economic systems, jobs, business, home life, and so much more. Whether for grid control, first responders, government, telemedicine for remote diagnosis, telecommuting, training, education, or entertainment - County local resilience depends upon reliable communication and internet services.

Comp Plan Elements Interdependance

Energy and communication services touch almost every Element of the Comp Plan. For example, **housing** energy efficiency standards, **transportation** efficiency and carbon footprint and EV chargers, **land use** permitting for increased local renewables and communication facilities, **environment** for submarine cables and tidal energy, and so forth. Much of the material in this Utility section will be expanded on in each related Element of the Comp Plan.

Recommended Language

Suggested Comp Plan Language (Islands Climate Resilience Steering Committee)

We know that OPALCO is proactively working to increase the use of renewable energy and the implementation of energy efficiency initiatives in the islands, and we support their suggested language for the Comprehensive Plan to clearly establish these efforts—and climate change mitigation—as County priorities.

Suggested Comp Plan Language (Rich Strachan, Lopez Island)

Notes

Red text is new language specifically for SJ County. The black text is "old" or existing language that were gathered from a variety of county sources around Washington State.

New code language to be inserted in San Juan Comprehensive Plan Section 8.5 Renewables

VISION

Update the Comprehensive Plan to include specific siting parameters and rules for various forms of small-scale, residential renewable energy projects

CHALLENGES

No such code language now exists, complicating efforts to more easily deploy available renewable energy technology to homeowners or builders who wish to incorporate these technologies in their plans.

GOALS

Write clear, concise, logical regulations that are easy to understand, permit, and implement. Have this suggested language adopted by Planning Staff and incorporated into County building codes

OBJECTIVES

1. Encourage homeowners and business to install SWES (small wind energy systems), PV (photovoltaic, or “active solar” arrays) and DSHW (domestic solar hot water systems).

2. Include in the ordinance language that exempts PV and DSHW from land use review and directs the issuance of building permits for these systems to be over-the counter.

3. Include in the ordinance language that identifies through a matrix where SWES can be located and their maximum heights and number per tax lot, and establish a special procedure to expedite the land use review of these applications.

4. Establish a special schedule of flat fees for the permits of all RE systems that is partially de-coupled from the value of the equipment. Flat fees should be no more than 1% of the post-rebate or incentive(s) costs of the materials.

PERFORMANCE METRICS:

Number of renewable energy permits issued

REVENUE SOURCES, FUNDING, ECONOMIC BENEFIT

Savings from increased efficiency in permitting projects, increased RE applications once applicants realize that clear, concise and logical rules are in place to speed their applications through the permitting process.

COMP PLAN LANGUAGE

Red text is new language specifically for SJ County. The black text is “old” or existing language that were gathered from a variety of county sources around Washington State.

New code language to be inserted in San Juan Comprehensive Plan Section 8.5 Renewables

Model zoning and permitting ordinance for Residential-Scale Renewable Energy Installations in San Juan County, Washington State

PERMITTED USE REGULATION FOR SMALL WIND TURBINES, RESIDENTIAL PHOTOVOLTAIC (PV) SYSTEMS

1. PURPOSE: The purpose of this ordinance is to facilitate the installation and construction of SWES (small wind energy systems), small (residential scale) PV or "active solar" systems and micro-hydro systems in San Juan County for private landowners, subject to reasonable restrictions.

2. FINDINGS: The [City/County] finds that wind and solar energy are abundant, renewable and nonpolluting energy resource and their conversion to electricity will reduce our nation's dependence on nonrenewable energy resources and decrease air and water pollution that results from the use of conventional energy sources. In Washington State, distributed small wind, solar (pv) and micro-hydro energy systems, designed and installed for onsite home, farm and small commercial use are an excellent technology to help achieve the goal of increased in-state electricity generation, diversify and enhance the reliability of the power grid, increase consumer energy independence and create nonpolluting energy.

Therefore, it is necessary to standardize and streamline the proper issuance of building permits for small wind energy systems so that this clean, renewable energy resource can be utilized in a cost-effective and timely manner.

3. DEFINITIONS: As used in this Ordinance, the following terms shall have the meanings indicated:

[City Council/BOCC] shall mean the local elected [City Council/Board of County Commissioners].

[City/County] shall mean [City/County] government.

FAA shall mean the Federal Aviation Administration.

Siting Permit shall mean a construction and operating permit granted in accordance with the provisions of this Ordinance.

Small Wind Energy System (SWES) shall mean wind energy conversion system which converts wind energy into electricity through the use of a wind turbine generator, and includes a wind turbine, rotor blades, tower, foundation, and associated control or conversion electronics, which has a rated capacity of not more than 100 kW and which is intended to primarily reduce on-site consumption of utility power.

Total Height shall mean, when referring to a Wind Turbine, the distance measured from the grade plan to the tip of the rotor blade when extended vertical to its highest point.

Tower Height shall mean, when referring to a Wind Turbine, the distance measured from the grade plane to the top of the structure that supports a wind turbine. This structure may be freestanding, guyed or a monopole.

Wind Turbine shall mean the parts of the small wind energy system including the rotor blades, generator, housing and tail.

Photovoltaic Energy System (PV) shall mean a solar energy conversion system which converts solar energy into electricity through the use of one or more photovoltaic panels which may be grouped in arrays, either mounted on rooftops, or ground-mounted on

stationary racks or tracking mounts, and includes associated control or conversion electronics, which has a rated capacity of not more than 100 kW and which is intended to primarily reduce on-site consumption of utility power.

Micro-Hydro Energy System (Micro-Hydro) shall mean an in-stream device which converts the energy of the water passing through it into electricity through the use of propeller turbines, Pelton wheels or other turbine types and includes associated control or conversion electronics, which has a rated capacity of not more than 100 kW and which is intended to primarily reduce on-site consumption of utility power.

4. APPLICABILITY: The requirements set forth in this Ordinance shall govern the siting and permitting of small wind energy systems used to generate mechanical or electrical energy to perform work, and which may be connected to the utility grid pursuant to the Revised Code of Washington, Chapter 80.60 (Net Metering of Electricity), serve as an independent source of energy, or serve as part of a hybrid system.

The requirements of this Ordinance shall apply to Small Wind Energy Systems (SWES), PV and Micro-Hydro systems proposed after the effective date of this Ordinance. Any SWES, PV and Micro-Hydro systems for which a required permit has been properly issued prior to the effective date of this Ordinance shall not be required to meet the requirements of this Ordinance; provided, however, that any such pre-existing SWES, PV and Micro-Hydro systems that is not producing energy for a continuous period of twelve (12) months shall meet the requirements of this Ordinance prior to recommencing production of energy. No modification that increases the height of the system or significantly increases its output shall be allowed without full compliance with this Ordinance.

5. REGULATORY FRAMEWORK:

5.1. Comprehensive Plans: A SWES and Micro-Hydro system shall be constructed in areas consistent with the [City/County] adopted Comprehensive Plan. PV and solar collection systems for domestic hot water are permitted outright in all zones.

5.2. Principal or Accessory Use: A SWES, PV or Micro-Hydro system may be considered either a principal or an accessory use. A different existing use or an existing structure on the same lot shall not preclude the installation of a SWES, PV or Micro-Hydro system or a part of such facility on such lot. Any SWES, PV or Micro-Hydro system that is constructed and installed in accordance with the provisions of this Ordinance shall not be deemed to constitute the expansion of a nonconforming use or structure**Zoning:**

1) A SWES may be constructed on any [City/County] legal lot of record meeting the requirements set forth in Section 6 of this Ordinance. No such restrictions shall apply to the establishment of a PV or Micro-Hydro system.

2) Small Wind Energy Systems may only be constructed in zones according to the following matrix:

Lot Size Acres	# of Towers Allowed	Tower Type	Maximum Total Height in Feet	Maximum KwH per Turbine	Maximum KwH per Lot
0 - .5	0	--	--	--	--
.51 -1.5	1	Monopole	75	5	5
1.51 - 2.0	2	Monopole	100	10	20
2.1 - 5.0	2	Monopole, Guyed, Lattice	125	10	20
5.0+	2 or 1 per acre in excess of 5 acres	Monopole, Guyed, Lattice	150	100	100

6. GENERAL REQUIREMENTS FOR SMALL WIND ENERGY SYSTEMS:

6.1. Visual Appearance; Lighting; Power lines:

The following visual appearance, lighting and power-line requirements shall apply to all SWES.

1) Wind Turbines shall be painted a non-reflective, non obtrusive color. Small wind energy towers shall maintain galvanized steel, brushed aluminum, white or gray finish, unless FAA standards require otherwise.

2) At SWES sites, the design of the buildings and related structures shall, to the extent reasonably possible, use materials, colors, textures, screening and landscaping that will blend the SWES to the natural setting and the existing environment.

3) No SWES shall be artificially lighted, except to the extent required by the FAA or other applicable authority.

4) No SWES shall be used for displaying any advertising except for reasonable identification of the manufacturer.

5) Electrical controls, control wiring and power-lines shall be wireless or underground.

6.2. Setbacks and Tower Height:

The following setback and tower height requirements shall apply to all SWES; provided, however, that the [City Council/BOCC] may reduce the standard setback and tower height requirements if the intent of this Ordinance would be better served thereby.

1) Tower Height: The Tower Height of a SWES shall not exceed 150 feet, or the maximum allowed by zoning (see 5.3.2).

2) Property Lines: Each SWES shall be set back from the nearest property line a distance no less than 1.2 times the Tower Height, unless appropriate easements are secured from adjacent property owners, or other acceptable mitigation is approved

by the Hearing Examiner or [City Council/BOCC]. No part of the system, including guy wire anchors, may extend closer than 30 feet to the property boundary.

3) Neighboring Buildings: At the time of application, each SWES shall be set back from the nearest non-participating building structure (i.e., buildings on neighboring land) a distance no less than on and a half (1.5) times its Total Height.

4) Communication and Electrical Lines: Each SWES shall be set back from the nearest above-ground public or private non-participating electric power line or telephone line a distance no less than 1.5 times its Total Height, determined from the existing power line or telephone line.

5) Lattice-type towers shall be constructed in such a way as to prevent nesting opportunities for birds.

6.3 Sound Levels and Measurement:

Audible sound due to SWES operations shall not exceed (60) dBA for any period of time, as measured at the closest neighboring inhabited dwelling on the date of approval of any SWES Siting Permit. The sound level may, however, be exceeded during short-term events such as utility outages and severe wind storms.

6.4 Minimum Ground Clearance:

The rotor blade tip of any Wind Turbine shall, at its lowest point, have ground clearance of no less than (20) feet, as measured at the lowest point of the arc of the rotor blades.

6.5 Safety:

The following safety requirements shall apply to all SWES.

1) Wind Turbine towers shall not be climbable up to 15 feet above ground level.

2) All electrical equipment shall be safely and appropriately enclosed from unintentional access by means such as barrier fencing, equipment cabinetry or similar means. All access doors to electrical equipment shall remain locked unless access is necessary.

3) Appropriate warning signage (i.e., electrical hazards) shall be placed on SWES equipment.

4) All SWES shall be equipped with manual and/or automatic overspeed controls to limit rotation of the rotor blades to a speed below the designed limits of the system.

6.6 Compliance With International Building Codes:

The Siting Permit for a SWES shall comply with all applicable sections of the Washington State Building Code and adopted International Building Codes.

1) Siting Permit applications for all SWES shall include standard drawings and an engineering analysis of the system's tower, showing compliance with the Washington State Building Code and International Building Code. The engineering must be completed by a licensed engineer certified to practice in the State of Washington. The engineering must include a complete analysis of the tower, the tower foundation and the connection of the tower to the foundation. A "wet" stamp shall not be required, provided that the engineering demonstrates that the system is designed to meet the most stringent requirements at the site for wind speed and

exposure, seismic class, and the weakest soil class, with a soil strength of not more than 1,000 pounds per square foot.

6.7 Compliance With National Electrical Code:
All SWES shall comply with requirements per the Washington State Department of Labor & Industries (L&I) and the current adopted edition of the National Electrical Code (NEC).

6.8 Compliance with FAA Regulations:
All SWES must comply with all regulations of the Federal Aviation Administration (FAA), including any necessary approvals for installations close to airports.

6.9 Other Federal, State and Local Requirements:

1) All SWES shall comply with all current adopted Federal, State and [City/County] Laws, Codes and Ordinances including but not limited to [City/County] Code, Title ____, Title ____, Title ____, and Title _____.

2) All SWES shall comply with the requirements of Chapter 80.60 of the Revised Code of Washington, Net Metering of Electricity.

3) All SWES that are intended to participate in the net metering program shall meet all requirements of the [_____] utility district and provide a copy of a current, approved, site/system specific Schedule 150 Net Metering Agreement prior to permit issuance.

6.10 Removal of Defective or Abandoned Small Wind Energy Systems:
Any SWES found to be unsafe by the building official shall be repaired by the landowner to meet federal, state and local safety standards or removed within 3 months. If any SWES is not operational for a period of 12 consecutive months or more, the [City/County] will request by registered mail and provide 45 days such response for the landowner to provide corrective action. In such a response, the landowner shall set forth reasons for the operational difficulty and provide a reasonable timetable for corrective action. If the [City/ County] deems the timetable for corrective action as unreasonable, it must notify the landowner and such landowner shall remove the turbine at his or her own expense within 120 days of receipt of notice from the County. The [City/County} shall have the authority to pursue legal action if necessary.

7. GENERAL REQUIREMENTS FOR RESIDENTIAL PV SYSTEMS:

7.1. Compliance With International Building Codes:

The Siting Permit for a residential PV system shall comply with all applicable sections of the Washington State Building Code and adopted International Building CoDES

7.2 Compliance With National Electrical Code:

All residential PV systems shall comply with requirements per the Washington State Department of Labor & Industries (L&I) and the current adopted edition of the National Electrical Code (NEC).

8. GENERAL REQUIREMENTS FOR RESIDENTIAL MICRO-HYDRO SYSTEMS:

8.1. Compliance With International Building Codes:

The Siting Permit for a residential Micro-Hydro system shall comply with all applicable sections of the Washington State Building Code and adopted International Building Codes.

8.2. Compliance With National Electrical Code:

All residential Mycro-Hydro systems shall comply with requirements per the Washington State Department of Labor & Industries (L&I) and the current adopted edition of the National Electrical CODE (NEC)

Suggested Comp Plan Language (from OPALCO)

Notes

All edits appear in red. Original Comp Plan language in black.

COMPREHENSIVE PLAN SECTION B, ELEMENT 8 UTILITIES

8.1 INTRODUCTION

8.1.A Purpose

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

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. Privately owned utilities are not municipally owned facilities although they provide an essential public service for the health, safety and wellbeing of the inhabitants of the County. 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.4. County residents ultimately bear the majority of the costs associated with the provision of utility services through utility rates, taxes, land development costs, and impacts to environmental and aesthetic values.

8.1.B Relationship to Other Elements

The Utilities Element does not address water resources or services. These elements are discussed in detail in Appendix 4 and Element 4-Water Resources and Appendix 7 and Element 7-Capital Facilities.

While the Utilities and the Capital Facilities Elements both address utility planning issues, the Utilities Element differs from the Capital Facilities Element in some ways. The Utilities Element does not address financing issues. It presents policies concerning how utilities are to be located and, in general terms, their design.

The Utilities Element relies on information shared by the utility providers.

8.2 GENERAL GOALS AND POLICIES

The General Goals and Policies in this Element address the planning, location and siting of utilities, services to new development, and environmental protection - issues common to all utility services.

8.2.A Long-range Planning

Goal: To coordinate planning efforts between San Juan County and utility service providers and encourage the regular exchange of 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.

Policies (8.2.A.1-6):

1. Provide utility service providers with appropriate plans and mapped information to help establish a common county-wide base map for utilities planning.

2. Maps 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 into the county's Geographic Information System (GIS)) and all functional successors to that system.

3. Review the utility facilities inventory annually and provide updates on a biennial basis or as necessary.

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.

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.

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

8.2.B Project Coordination

Goal: To allow for the timely and cost-effective provision of utility services to county residents by enabling inter-agency joint project planning; and to ensure the availability and use of utility corridors within public rights-of-way for the placement of utility service facilities.

Policies (8.2.B.1-4):

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.

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 transformers, switch vaults, telephone pedestals, utility equipment cabinets, and other necessary utility equipment or structures.

3. New dedications for public rights-of-way should allow for utility services.

8.2.C Location and Siting

Goal:

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

Policy (8.2.C.1):

1. Locate and site utility facilities to minimize negative impacts to the rural character and natural environment of the county. New 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.

2. Though power and communication facilities are recognized as essential public facilities, where possible, new utility facilities should conform to the policies of the Land Use Element.

8.2.D Permitting

Goal: To foster predictability and timeliness in processing permit applications for new utility facilities or utility service work; and to allow for necessary maintenance, repair, improvement, and expansion of utility facilities in a timely and efficient manner to enable earlier public benefit.

Policies (8.2.D.1-3):

1. Priority should be given to maintenance and repair work required to restore utility service under emergency circumstances.

2. Identify utility installation, relocation and maintenance activities that are expected to have significant permanent or unmitigable impacts.

3. Identify utility installation, relocation and maintenance activities which are expected to have insignificant environmental impacts and will establish exemptions from permit requirements for those types of activities.

8.2.E New Development

Goal: To minimize adverse impacts of providing utility services to new development on the rural character of San Juan County; to allow for the provision of the full range of utility services to county residents; and to provide for new utility facilities which are compatible with or can be mitigated to minimize adverse impacts to adjacent land uses.

Policies (8.2.E.1-3):

1. New utility installations to serve new development should be installed underground, except that services for single-family residential construction on an existing parcel may connect with existing overhead utility facilities.

2. New development should be designed so that utility easements are accessible and have sufficient capacity for installation of the full range of required utility services.

3. Utility providers should be consulted during the permitting process for installation of utility systems.

4. New utility installations should provide vegetative screening or buffers for existing adjacent development.

5. New development approved adjacent to existing utility facilities should provide vegetative screening or buffers.

8.2.F Environmental Protection

Goal: To protect and preserve natural habitats and environments while also providing for the location and extension of necessary utility facilities.

Policies (8.2.F.1-4):

1. Environmental protection and a quality environment are viewed as one product of, and not a constraint on, good utility service, and are important components of operation in the public interest. Regulations for environmental protection should recognize both the significance and permanence of potential environmental damage and the cost to mitigate or avoid potential damage for proposed utility projects.

2. New utility facilities should be located away from, or constructed in a manner compatible with, critical areas, Resource Lands, and Shorelines. Recognize that physical and service constraints may not allow relocation away from or full compatibility with such areas and resources.

3. Condition the approval of new utility facilities so as to avoid or mitigate any significant adverse impacts, and to develop appropriate compensating measures where mitigation is not feasible.

4. 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 utilities will seek to minimize those costs in their planning, decision-making, and project execution.

8.2.G Energy Conservation

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

Policy (8.2.G.1):

1. Encourage and cooperate with utility service providers to explore innovative and alternative methods of conserving energy.

8.3 UTILITY-SPECIFIC GOALS AND POLICIES

8.3.A Electricity Facilities

Goal: Inasmuch as Orcas Power and Light Company (OPALCO)), a nonprofit member cooperative, provides electric energy to virtually the entire County, the goal of this section is to assist OPALCO in achieving its goal as stated in OPALCO's Cooperative's Bylaws and Articles of Incorporation: "to make electric energy available to its members at the lowest cost consistent with sound economy, good management, and the public interest."

Policies (8.3.A.1-6):

1. OPALCO's electric grid is an essential public facility. Assist OPALCO when necessary to respond to new, unforeseen conditions and technologies that may affect utility operations and facilities.

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 generation, and any other necessary equipment or structures. Existing facilities are shown in Figure 1, below.

3. Consider electric power facilities to be essential public facilities.

4. 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 new alternative energy sources which are consistent with the goals and policies of this Plan and which comply with all attendant regulations.

6. Develop a process for locating sites deemed appropriate for the location of alternative power generation facilities.

8.3.B Communication Facilities

Goal: To promote the widespread availability of communication systems to facilitate communication among members of the public, public institutions, government agencies 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 communications technology.

Policy (8.3.B.1):

1. Communication facilities are, by their nature, an integral part of emergency services. In addition, OPALCO's communication facility, including, but not limited to fiber and wireless systems, are an integrated inseparable part of the modern electric grid. As such, being integral to emergency services and the electric grid, these communication systems are essential public facilities. ~~Telecommunications facilities which are developed and operated expressly to carry out emergency services should be considered 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 communications 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.

Figure 1. 2005 OPALCO Service Territory in San Juan County

<add updated map of OPALCO service territory - showing transmission, distribution and fiber, along with LTE coverage>

8.4 Greenhouse Gas Emissions

Goal

Reduce San Juan County Greenhouse Gas (GHG) emissions by 25% below 1990 levels by 2035 and 50% by 2050.

Policy

8.4.1 San Juan County will reduce greenhouse gas emissions through compliance with federal, state and regional policies (including reduction goals and reporting requirements as defined in RCW 70.235.020) while developing local strategies to reduce emissions even further.

8.4.1.A Conduct a County GHG audit and update periodically (i.e. every two-three years).

8.4.1.B Use the GHG Reduction Goals as a driver to help make energy choices that further this goal.

8.4.1.C Update County Resolution 8-2008 "A Resolution of San Juan County of Declaration and Resolution on Climate Change" and assessing County progress on the actions outlined in the resolution.

8.4.1.D Develop a Climate Action Plan that establishes GHG emission reduction targets and mitigation measures and adaption strategies to address climate related impacts within the County. The plan should describe impact and actions to take on responding to a changing local climate. Refer to existing models for reference, including US Mayors Climate Protection Agreement, and Jefferson County, Washington Climate Action Plan.

8.4.1.E Support and make San Juan County a model community for climate change preparedness and resilience practices that ensure long-term business viability while attracting and protecting visitors, businesses and residents.

8.4.1.F Establish benchmarks, metrics and targets for reduction of greenhouse gas emissions, assess current conditions and progress in reducing greenhouse gas emissions from municipal, commercial, residential and transportation-related land uses, projects and programs.

8.4.1.G Support the development of a public education program which informs all citizens on the methods and progress for meeting the Island's greenhouse gas emission goals and ways citizens can assist in reaching the reduction goals.

8.4.2 Most County greenhouse gas emissions come from transportation and heating fuels (gasoline, diesel, heating oil and propane). In essentially every case, electricity is the cleanest and lowest cost fuel for transportation and heating.

8.4.2.A Estimate the TOTAL energy needs of both County Operations, as well as the County as a whole. This includes electrical and carbon based fuels (e.g. propane, gasoline, diesel fuel, industrial gases, wood, other biomass, waste).

8.4.2.B Prepare an “Energy Budget” that forecasts the electrical energy and non-electrical energy use anticipated to be consumed by all county operations.

8.4.2.C As technically and economically viable, the County will transition county fleet and heating to electric forms of transportation and heating.

8.4.2.D Establish goals and timelines for how Energy use by function will transition. For example, “As of 2017, County vehicles consume X gallons of gasoline, diesel, propane per year. By 20XX, this will change to Y gallons of gasoline/diesel/propane and Z kWh of electricity, for a savings of $W/yr, and a reduction of U tons/yr of green house gases.” The goals and timeline have a clear owner and a progress review process.

8.4.2.E Washington State estimates that 63% of greenhouse gas emissions from their fleet, come from the ferry system. There is a substantial opportunity to reduce emissions of the WA fleet through electrification of the ferry fleet. The ferry system is an essential public facility and terminals should be equipped to support rapid charging of electric ferries. Similarly, as other marine transport becomes electric, marinas should be similarly equipped.

8.4.2.F Establish a local carbon tax (modeled on the lodging tax) on gasoline and other fossil fuels to fund transportation charger networks, ferry charging facilities, and energy efficiency initiatives to help residents save money by using energy more efficiently.

8.4.2.G Reduce the amount of fossil fuels used in County motorized transportation.

8.4.2.H Discourage the use of two-stroke engines. Two-stroke engines are especially polluting (and a common source or noise complaints). Promote use of electrical equipment when available, such as leaf blowers, weed trimmers and lawnmowers.

8.4.2.I Explore the feasibility of installing electric vehicle charging stations for public use all County facilities.

8.5 Local Energy Resilience

Goal

Increase local energy resilience through continuous improvements in energy efficiency and conservation (EE&C) and development of local renewable energy production such that the county is net-zero by 2050.

Policy

8.5.1 Increase energy efficiency of homes, businesses and county facilities. EE&C is the lowest cost form of energy. By reducing energy waste, we reduce the need for energy generation, save money, keep energy dollars local and increase economic resilience. The Northwest Power and Conservation Council, in their 7th Power Plan, estimates that most new energy demand will be met by EE&C. Over 80% of a typical County home or business energy use goes to transportation and heating. State of the art electric transportation and heating are about 400% more efficient that fossil fuel counterparts. There is therefore substantial opportunity to reduce energy consumption and cost through the electrification of transportation and heating.

8.5.1.A Align public policy and building standards to do EE&C at construction time, when implementation cost is lowest.

8.5.1.B Transition county passenger vehicles to EVs. This yields about a 75% reduction in energy use and cost. Transition heavier vehicles as technology becomes available.

8.5.1.C Work closely with OPALCO to understand how to balance EE&C (Energy Efficiency and Conservation) with Local Generation to maintain grid reliability and performance.

8.5.1.D Perform an energy audit of County facilities to establish normal use and determine the minimum energy required during an emergency outage.

8.5.1.E Work with OPALCO to analyze the role that battery storage and local distributed generation can play in increasing County operations resiliency.

8.5.1.F Review and upgrade policy and building codes/standards to provide incentives for improving the efficiency of transportation and heating systems. Efficient transportation including, but not limited to electric vehicles, bike paths, walking paths, and charging stations. Efficient heating systems, including, but not limited to, heat pump space heaters, heat pump water heaters, insulation, air sealing, and weatherization.

8.5.1.G Establish an "Energy and Environment Dashboard" website, which shows County progress in meeting Countywide environmental, EE&C and local renewable energy production goals, and County Operations energy consumption (all types). Dashboards are an effective and powerful management tool to measure the current state ,and the effectiveness of policy toward meeting policy objectives. For an example, see: http://environmentaldashboard.org/brd/

8.5.1.H Support the use of various demand response systems, including, but not limited to, programmable thermostats, large load demand response systems, and intelligent appliances, to help homes and businesses control their energy costs and moderate load variance.

8.5.1.I Institute energy audits and recommended upgrades upon residential property sales and for all commercial buildings, similar to septic inspections. Make the results of the energy audits available to potential buyers.

8.5.1.J Encourage islanders, through outreach and education, to reduce energy and water consumption, and minimize greenhouse gas emissions for healthier and more resilient communities.

8.5.1.K Establish a measure of County Energy Use Intensity to establish a baseline from which to track energy use in the county. Energy Use Intensity = (kWh + Therms or BTU) / gross square feet of built conditioned space in the county.

8.5.1.L Achieve a LEED rating of gold or higher for all new County construction where feasible.

8.5.1.M Collaborate with regional partners in development of programs and policies which would have a positive effect on local resilience.

8.5.1.N Mirror California's Title 24 Building Energy Efficiency Standards for Residential and Nonresidential Buildings for San Juan County building codes.

8.5.2 Increase local energy production

8.5.2.A Establish a network of "energy peers" - other counties or cities that share similar characteristics with San Juan County and with whom the County can share best practices, technical implementations, economic data, etc.

8.5.2.B Consider and plan for potential new major energy loads such as desalination plants for fresh water production. The energy requirement for Seawater Reverse Osmosis Desalination (SWRO) is in the range of 6.8 – 8.2 kWh per thousand gallons. Other potential new loads include the electrification of the ferry system, and marine transportation.

8.5.2.C Review current land use and building codes and ensure they strike a balance between need to accommodate increased local generation resources such as solar arrays, while preserving the rural character and forested nature of the county. For example, solar arrays require a "right of way" to the sun be maintained. But, in a warming world, shade trees become an increasingly important form of energy efficiency, to keep homes and businesses cooler in hot summer months.

8.5.2.D Utility local energy production systems (solar, wind, tidal, biomass, fuel cells, storage) are essential public facilities.

8.5.2.E Local renewable energy generation and storage helps increase resilience. Zoning and land use designations will not unduly burden energy projects as long as they are consistent with other elements of the Comprehensive Plan.

8.5.2.F Permit fees for local renewable energy projects shall be used to fund EE&C electrification of transportation and heating incentives.

8.5.2.G As Vehicle to Grid (V2G) equipped electric vehicles (EVs) become available, ensure that option is included in county fleet vehicle purchases. V2G allows EV batteries to provide distributed storage to the grid, enhancing local energy resilience, and reducing the impact of peak load conditions, improving grid reliability and reducing peak energy demand costs.

8.5.2.H Encourage the transition of transportation and heating fueled by fossil fuels to electric forms of transportation and heating, while increasing the production of local renewable energy, to power those new loads. This reduces our dependance on imported energy, keeping more dollars in the local economy. It also reduces our production of green house gases.

8.5.3 Establish energy micro-grids in support of town-centers and essential public services and facilities.

Natural Resource Land

Previous Comp Plan Material

TBD

New Comp Plan Material

The Natural Resources element home page currently has *Natural Resource Lands Analysis Scope of Work*. See: http://www.sanjuanco.com/DocumentCenter/Home/View/12774

The Lands Analysis document reviews:

- Agricultural Resource Lands
- Forest Resource Lands
- Mineral Resource Lands

Background Narrative

Biomass Energy in San Juan County

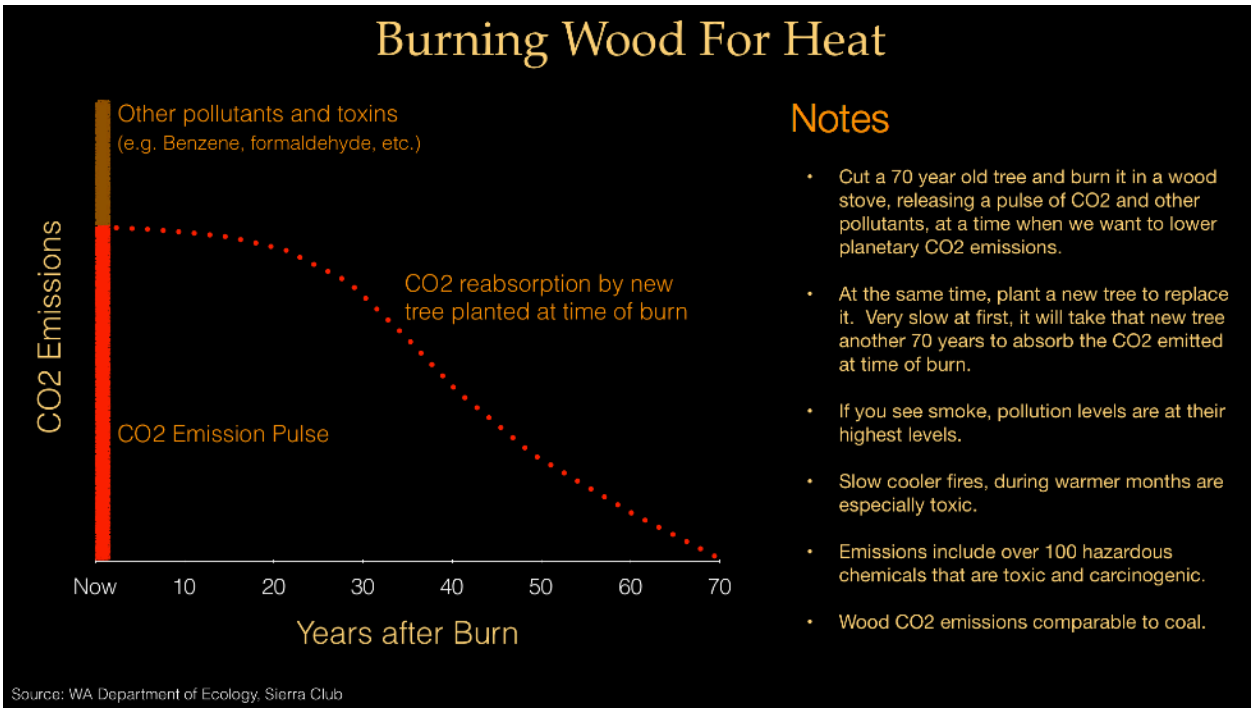
Though biomass emits carbon when burned for energy, and is considered by many a problematic source of renewable energy, it is worth considering the energy potential.

San Juan County biologist and forestry guru Tom Schroeder, researches and writes extensively on our county forests. As many have observed, and Tom notes:

> *"Trees in our local forests grow more slowly, are much shorter at every age, and experience challenging conditions that derive from peculiarities of local geology and climate."*
>
> *"Low timber productivity in San Juan County means that, even at culmination, the rate of volume growth is low. Culmination - the age at maximum timber growth - is also relatively delayed compared to more productive areas. In this county's forests culmination is at 100-120 years, whereas in forests on "good" land of grade II, culmination is at about 50 years. For sustainability, age at culmination should be matched to rotation of timber harvesting, so it follows that* ***San Juan's forests are being harvested 2 to 3 times too rapidly*** *(turning over every 45 years vs 100-120 years)."*

One estimate suggests that only about 320 to 500 of the total 70,000 acres of County forest could be harvested annually in a sustainable fashion. In the Pacific Northwest, hybrid poplar grown for saw-log production is estimated to yield up to 12 dry tons per acre of chips for energy production at the time of harvest (Stanton et al. 2002). So, 320-500 acres x 12 ODT (one dry ton) = 3,840 to 6,000 tons/yr of burnable biomass. It takes from 5,600 to 8,600 ODT to generate 1 MW of power. So, about 1MW, or 5,600 tons of woody mass/yr. At best, this gives about 8,760MWh, or 4.4% of our annual 200,000 MWh demand, and more likely only 3% if you assume a 70-80% capacity factor.

And at the end of the day, you are releasing all that carbon, comparable to coal, into the atmosphere. Just as it has been said that much of the remaining oil and coal should be left in the ground, when it comes to burning wood, to paraphrase, "leave it on the ground" for a slower release of carbon, and nutritive benefit of the soil.



So, while biomass may offer some potential for energy generation, biomass alone is not sustainable in San Juan County.

Biochar may offer more promise and a three-for-one benefit:

- generation of electricity
- absorption of carbon
- production of charcoal to be used as a soil amendment

Biochar is made from biomass via pyrolysis. An example of this is an installation that processes 55 lbs/hr of biomass, produces 25kWh of electricity, and yields 20lbs of biochar/hr. The unit is about the size of a standard modular freight container.

The entire process is carbon-negative. If the unit runs 8 hrs/day, it would produce 73,000 kWh, or the equivalent of a 60 kW solar array. Larger units have demonstrated the ability to generate electricity in the 5¢/kWh range. Biochar's use as a soil amendment may be in the 1,000 lbs/acre range, and sells for about 10¢/lb.

Though there are limits to how much biomass is available, we can at least explore how to use biomass that would normally enter the waste stream, extract energy, produce soil amendment, and absorb carbon for that biomass.

Recommended Language

This material is developed by our workgroup.

What challenges, goals, objectives, vision, actions, metrics, what revenue, what economic benefit and impact, how to fund?

Suggested Comp Plan Language (From Nora Nickum & Linda Lyshall and Islands Climate Resilience Steering Committee)

2.2.F Natural Resource Conservation (previously in Land Use element)

Edits to previous policy 3: Encourage sustainable forest management in order to conserve forest lands, sequester carbon, and promote the retention and preservation of forest stands that are particularly important to visual aesthetics, wildlife habitat, groundwater retention and/or site stability.

Edits to previous policy 4: Protect and preserve, wetlands, critical marine and terrestrial wildlife habitats and wildlife corridors, including breeding grounds, resting and feeding areas for migratory birds, nursery areas and habitats of threatened, endangered and sensitive species. Include areas and habitats that can provide refuge for species that are vulnerable to climate change impacts like rising temperatures, and allow for migration of critical marine habitats as sea levels rise.

Edits to previous policy 5. Encourage the reclamation, rehabilitation and enhancements of: (a) wetlands, (b) marine and terrestrial wildlife habitat, and (c) vegetated areas necessary to maintain site stability and groundwater recharge, considering climate change impacts on precipitation patterns and water availability.

New policy: Consider climate impacts and opportunities to reduce climate vulnerability during restoration activities. Examples include opportunities to reduce runoff, mitigate flooding, and retain fresh water resources, and opportunities to use natural shading to conserve moisture in dry sites.

Agricultural Resource Lands

Edits to previous Goal: To ensure the conservation of agricultural resource lands of long-term commercial significance for existing and future generations, and protect these lands from climate change impacts and from interference by adjacent uses which may affect the continued use of these lands for production of food and agricultural products.

Forest Resource Lands

Edits to previous Goal: To protect and conserve forest lands of long-term commercial significance for sustainable forest productivity and provide for uses which are compatible with forestry activities while maintaining water quality, water quantity, and fish and wildlife habitat; sequestering carbon; and increasing the climate resilience of the forest lands and their resources.

Comprehensive Plan - Appendix 2

Joint Planning Policies with the Town of Friday Harbor, and other County-wide Planning Policies

Previous Comp Plan Material

http://www.sanjuanco.com/DocumentCenter/Home/View/1071

New Comp Plan Material

TBD

Background Narrative

Recommended Language

This material is developed by our workgroup.

Suggested Comp Plan Language (from OPALCO)

Notes

All edits appear in red. Original Comp Plan language in black.

SAN JUAN COUNTY AND TOWN OF FRIDAY HARBOR

County-wide Planning Policies, including Joint Planning Policies

Policies for Designation of a Friday Harbor Urban Growth Area

The Town and County shall cooperatively and jointly determine the Friday Harbor Urban Growth Area (FHUGA).

Policy 1

The criteria for determining the FHUGA should include the following:

a. Existing areas characterized by urban development or able to support urban levels of development; and

b. The proximity to the Town of Friday Harbor corporate limits of areas characterized by urban development or ability to support urban levels of development; and

c. The presence of designated critical areas and resource lands, and other lands with limited development capability as defined in a land use inventory conducted in accordance with the "Policies for Joint County and Town Planning," below; and

d. Other natural or topographic features which may serve to define the boundaries of the FHUGA.

Policy 2

The Town and County should agree on the 20-year population forecast for San Juan Island to be used for the purpose of growth management planning. The 20-year population forecast should, at a minimum,

consider both the State Office of Financial Management projections and seasonal fluctuations in population which are characteristic of the Town and County.

Policy 3

The Town and County should jointly determine the portion of the 20-year population forecast which should be allocated to the FHUGA.

Policy 4

Based on the evaluation called for in Policies 1 through 3, the Town and County should jointly determine the amount of land necessary to support the population allocation and its capacity for residential and non-residential uses.

Policy 5

The Town and County should jointly identify additional commercial and other non-residential uses required to serve rural areas outside the FHUGA, but required to be located within the FHUGA, and determine the amount of land necessary to support those uses.

Policy 6

Based on the results of Policies 1 through 5, the Town and County should jointly determine the preliminary boundary of the FHUGA.

Policy 7

The Town and County should jointly define the levels of service necessary to support urban levels of development within the FHUGA.

Policy 8

The final boundary of the FHUGA should be determined by the Town, County and other service purveyors' abilities to provide urban levels of facilities and services for a 20-year planning period.

Policies for Joint County and Town Planning and Policies for Promotion of Contiguous and Orderly Development

The following policies are intended to provide guidance in development of comprehensive, consistent and coordinated plans for the FHUGA. They are intended to ensure that the Comprehensive Plans of the Town and County promote contiguous and orderly development.

A. GENERAL POLICIES

Policy 1

As a component of the Growth Management Act (GMA) implementation, the Town and County should prepare a Friday Harbor Urban Growth Area Management Agreement. The Town and County agree to jointly formulate and adopt goals, policies and standards which will be the basis for all planning decisions within the FHUGA.

Policy 2

The development review process defined by the FHUGA Management Agreement should be uniform and predictable in techniques, terminology, and standards. Subject to the terms of the agreement, final actions within the unincorporated areas of the FHUGA will be made by the County, and final actions within the incorporated area will be taken by the Town.

Policy 3

The FHUGA Management Agreement should define the following for the unincorporated portions of the FHUGA:

a. A process and standards for review of development proposals; and

b. The extent of use of Developer Extension Agreements (DEA) for the construction of required capital facilities. The DEA should specify the facilities to be constructed, applicable conditions and standards; identify fees for processing and review of facility construction plans and specifications; identify required bonds and assurances; and establish required inspections.

Policy 4

County permitting procedures should include notification to the Town Plan Administrator of all development proposed to locate within 1,000 feet of the Friday Harbor municipal boundary. County procedures should also specify a minimum setback for new uses other than residential, forestry or agricultural uses proposed to locate within areas designated as Rural General Use or Rural Farm Forest by the County Comprehensive Plan when such development is proposed to occur on property that abuts area zoned for single-family residential by the Town of Friday Harbor Comprehensive Plan.

Policy 5

San Juan County should encourage the conservation of agricultural open space presently existing at those locations at or near the points where Beaverton Valley, Roche Harbor and San Juan Valley Roads cross the Town's municipal boundaries in order to mark and maintain these distinct "edges" between the Town and the rural area of the County.

B. ANNEXATION

Policy 1

The comprehensive plans of the Town and County should contain a section devoted to policies for annexation.

Policy 2

Annexation agreements between the Town and Property owners within the FHUGA seeking annexation should define the annexation request, phasing, extension of urban services, proposed development, and specific conditions under which the annexation will be considered by the Town.

Policy 3

Urban services and capital facilities should be extended to lands within the FHUGA only when those lands are annexed to the Town.

C. Land Use

Policy 1

The County should coordinate a land use inventory for the FHUGA with the Town. The inventory should include agreed upon definitions of land categories, for example "vacant land," "developed land" and "constrained land," and identify such lands. In addition, the inventory should, at a minimum, identify the following:

a. Lands currently served by Town of Friday Harbor water and sewer services;

b. Lands within the Town of Friday Harbor's existing water and sewer service areas;

c. Lands within service areas of public water systems as defined in RCW 70.116;

d. Lands designated as resource lands or critical areas.

Policy 2

The County should consult with the Town in the process of designating other areas of San Juan Island as activity centers and give substantial weight to the Town's concerns regarding impacts to the Town including but not limited to tax base, water, sewer, transportation and other service requirements.

D. LOCAL CAPITAL FACILITIES

General Policies

Policy 1

The Town and County should jointly develop the portion of the capital facilities element of their respective Comprehensive Plans which pertains to the FHUGA. The capital facilities element should inventory existing local capital facilities. Capital facilities include, but are not limited to, water, sewer, parks, public buildings, fire protection, public safety, and storm drainage facilities. The inventory should include the type of facility, the age of the facility, level of development, location, capacity, and financial information.

Policy 2

The capital facilities element should be designed to serve development envisioned or authorized by the land use classifications of the FHUGA.

Policy 3

The capital facilities element should require facilities or facilities improvements to accommodate the impacts of new development to be in place at the time of development, or a financial commitment to be in place to complete the improvements within six years.

Policy4

The capital facilities element should establish capacity and level of service standards for existing and proposed capital facilities in the FHUGA.

Policy 5

The capital facilities element should establish criteria for the siting of new capital facilities and utilities which:

a. Provide for the protection of critical areas and resource lands;

b. Are consistent with adopted land use regulations; and

c. Ensure compatibility between capital facilities and residential uses.

Policy 6

The capital facilities element should identify the means and methods of financing for expansion or new construction of capital facilities and utilities.

Water Quality and Supply

Policy 1

The capital facilities element should include uniform and consistent policies for the protection and enhancement of water supplies.

Policy 2

The capital facilities element should require that all new development be contingent upon proof that a water supply is available and adequate for proposed uses.

Policy 3

The capital facilities element should provide for the protection of water quality and address public education, stormwater management, and watershed management.

Policy 4

The capital facilities element should promote water conservation as a means to ensure protection and availability of water supplies, and include conservation measures which apply to both water supply development and water use.

E. Utilities

Policy 1

The utilities element should be developed in cooperation with local power and communications utilities and franchisees.

Policy 2

The utilities element should be designed to serve development envisioned or authorized by the land use elements of the Comprehensive Plans of both the Town and County.

Policy 3

The utilities element should establish criteria for the siting of new and extended utilities which:

a. Provide for the protection of critical areas and resource lands;

b. Are consistent with adopted land use regulations but recognize power and communications utilities as essential public facilities;

c. Ensure compatibility between utilities and residential uses.

d. Consider the use of "utility corridors" as a means to reduce impacts of utility construction, and facilitate repair and maintenance.

Policies for Siting and Design of Essential Public Capital Facilities of County or State Wide Significance

Recognizing the diverse essential public facility needs of San Juan County's many islands, following are the policies of the Town and County for addressing the siting and development of essential public capital facilities of county or state-wide significance, including those facilities located within the Shoreline jurisdiction.

Policy 1

Essential public facilities (EPFs) are facilities that provide a necessary public service as their primary mission, and that are difficult to site. EPFs include those facilities listed in RCW 36.70A.200; any facility that appears on the list maintained by the State Office of Financial Management under RCW 36.70A. 200(4); secure community transition facilities as defined in RCW 71.09.020; state education facilities; state or regional transportation facilities as defined in RCW 47.06.140; general aviation airports; state and local correctional facilities; solid waste handling facilities; in-patient facilities including group homes, substance-abuse and mental health facilities; and facilities determined to be an Essential Public Facility under SJCC 18.30.050 E.

Essential public capital facilities of county or state-wide significance also include, but are not limited to: passenger and vehicle ferry terminals (public); public elementary and secondary schools; solid waste collection, transfer and disposal facilities; county roads and county docks; county equipment storage and maintenance yards; county septage handling and treatment facilities; primary electrical transmission and distribution system; fire stations and emergency service facilities; public libraries; post offices; parks; county administrative offices; and general aviation airports; electric utility facilities generating or storing electric energy; utility communications facilities whether for emergency service, or available for public use, or in support of an electric power utility.

Essential public facilities on San Juan Island include: town streets; town equipment storage and maintenance yards; municipal sewer system; municipal water system and associated watershed; and town hall administrative offices.

Location and Design Policies

Policy 2

In coordination with the Town of Friday Harbor and the appropriate utility, if any, ensure that sufficient lands are available to accommodate essential public facilities (EPFs).

Policy 3

On San Juan Island, new public schools and government administrative offices should be located within the Town, its UGA, or other area where adequate water supply and sewage disposal exist without new extensions of urban services.

Policy 4

Other facilities, should not be located outside the urban growth area unless its operation warrants a rural location.

Location Policies for San Juan Island

Policy 5

The Town of Friday Harbor and San Juan County should avoid duplication of facilities and facilities sites when they could reasonably and practically be shared among the two jurisdictions for common or multiple purposes, particularly those that, by their nature, warrant a rural location.

Policy 6

The Town and the County should maintain a standing task force of elected and appointed representatives, including representatives of the Port of Friday Harbor as appropriate, to develop specific siting criteria for a given facility, and to analyze and rank potential sites; such analysis must include evaluation of consistency with the applicable comprehensive plan.

Policy 7

The Town and the County should ensure that public involvement in siting decisions is fostered to the greatest extent possible by holding public meetings and otherwise distributing information at the earliest possible point in the decision process, in addition to public notices and hearings that may be required by law.

Policies for Other Capital Facilities of County or State Wide Significance

Policy 1

The capital facilities elements should require facilities or facilities improvements to accommodate the impacts of new development to be in place at the time of development, or require a financial commitment to be in place to complete the improvements within six years.

Policy 2

The capital facilities elements should be designed to achieve consistency with county or state plans and policies for the siting of public capital facilities.

Policy 3

Capital facilities element policies should be designed to serve development envisioned or authorized by the comprehensive plans of both jurisdictions.

Policy 4

The capital facilities elements should be designed to achieve consistency between both jurisdictions' plans for capital facilities.

Policy 5

The capital facilities elements should establish and maintain standards for the level of service for both existing and future public capital facilities.

Policy 6

The capital facilities elements should establish criteria for the siting of new public capital facilities which:

a. Provide for the protection of critical and resource lands; and

b. Provide for urban services; and

c. Are consistent with adopted land use regulations and shoreline master program; and

d. Ensure compatibility between capital facilities and residential uses.

Policy 7

The capital facilities elements should identify the timing and methods of financing for expansion or new construction of public capital facilities.

Policies for Transportation Facilities and Strategies

Following are the policies of the Town and County for development of the transportation elements of their comprehensive plans.

Policy 1

The transportation elements should be based on an inventory of existing transportation facilities including, but not limited to, airports, marine ports, roads, ferry terminals, marinas, parking facilities, and bicycle, equestrian and pedestrian trails.

Policy 2

The transportation elements should require transportation facilities or facilities improvements to accommodate the impacts of the development to be in place at the time of development, or require a financial commitment to be in place to complete the improvements within six years.

Policy 3

The transportation elements should be designed to achieve consistency between both jurisdictions' plans for transportation facilities.

Policy 4

The transportation elements should establish standards for the level of service for existing and proposed transportation facilities.

Policy 5

The transportation elements should contain specific requirements to bring existing facilities into compliance with level of service standards adopted under Policy 4.

Policy 6

The transportation elements should identify needs for expansion of transportation systems and facilities. Transportation facilities should be designed to serve development envisioned or authorized by the comprehensive plans of both jurisdictions

Policy 7

The transportation elements should establish criteria for the siting of new transportation facilities which:

a. Provide for the protection of critical areas and resource lands;

b. Provide for urban services and capital facilities;

c. Are consistent with adopted land use regulations; and

d. Ensure compatibility between transportation facilities and residential uses.

Policy 8

The transportation elements should contain strategies designed to encourage conservation.

Policy 9

The transportation elements should identify the timing and methods of financing for expansion or new construction of transportation facilities and, at a minimum, include:

a. An analysis of funding capabilities and revenue sources;

b. A multi-year financing plan; and

c. A contingency plan for funding shortfalls.

Policy 10

The transportation elements should promote the active involvement of, and coordination with, the Port of Friday Harbor and the State Department of Transportation in developing comprehensive plan policies which affect the Town, County, airport, marina and ferry terminal.

Policies for Affordable Housing

Following are the policies of the Town and County for development of the housing elements of their Comprehensive Plans.

Policy 1

The housing elements should include goals and policies that provide for a wide range of housing development types and densities to meet the housing needs of a diverse population and provide affordable housing choices.

Policy 2

The housing elements should include an inventory of existing housing conditions, an assessment of the current and projected need for affordable housing by household type, household income group and housing type.

Policy 3

The Town and County should consider the following factors when making decisions regarding land supply for affordable housing:

a. Overall density goals, goals for resource land conservation and protection of environmentally sensitive areas, and goals for open space and other public uses.

b. Existing neighborhood character, environmental constraints, and applicable designation, zoning and development regulations.

c. Varying interests of property owners in terms of timing of development, land use, and financial capability.

d. Effects on land costs and housing affordability resulting from land supply allocated by the comprehensive plans of both jurisdictions.

Policy 4

The housing elements should include policies for preservation and improvement of the existing housing stock.

Policies for Economic Development and Employment

Policy 1

The Economy and Employment elements of the Town and County Comprehensive Plans should contain goals and policies to ensure future economic vitality, broaden employment opportunities and meet the needs of projected growth while maintaining environmental integrity, and should expressly recognize the importance of the availability of electric energy and communications to their respective economies including distributive generation to increase economic resilience.

Policy 2

The Economy and Employment elements should be aimed at diversifying the economy and employment opportunities in appropriate areas of the County. Economic development policies should implement and be consistent with the County and Town Comprehensive Land Use Plans and Capital Facilities elements.

Policy 3

The Economy and Employment element should, at a minimum, include an inventory and assessment of the local economy, an analysis of economic and employment opportunities and options, an economic and employment strategy, and an action plan for implementing the strategy.

Town of Friday Harbor Watershed Management

Policy 1

Because the 4,880-acre watershed (see Figure 1, below) containing the Town of Friday Harbor's water supply occurs largely within the jurisdiction of the County, the County Comprehensive Plan and development regulations should provide for notice to be given to the Town Plan Administrator of all development permit applications submitted to the County which affect land within this watershed. For those applications for which the County Code specifies a public and agency comment period, the Town Plan Administrator should be given opportunity to comment.

Policy 2

The Town and the County should support public educational efforts regarding best management practices for the protection of water quality.

Analysis of the Fiscal Impacts

The following policies shall not apply to revenues required for utilities and essential public facilities not owned or operated by a governmental entity, but are intended to provide guidance to the Town and County in assessment of the fiscal impacts of implementing their comprehensive plans for San Juan Island:

Policy 1

The Town and County Comprehensive Plans should include an analysis of the fiscal impacts associated with implementing plans, policies and regulations. The analysis should include an inventory of tax bases including:

a. Sources of tax revenue including property, sales, franchise, hotel/motel, and other taxes;

b. Regulations and constraints governing the use of each revenue source;

c. Methods for collecting the revenue from each source; and

d. Sensitivity of each revenue source to fluctuations.

Policy 2

The analysis of fiscal impacts should include an evaluation of the public and private revenues required to fund the costs of public facilities and services resulting from the proposed land use, business activity and level of service standards.

Policy 3

The Town and County should each evaluate potential effects of GMA implementation regulations on their respective tax bases and tax revenues with particular attention to the effects on operating and capital budgets; assessed valuation; future debt capacity and assumption of debt.

Policy 4

The Town and County should jointly evaluate the potential for distribution of tax and non-tax revenues resulting from the Town's role as a center of commerce and primary point of entry for San Juan Island.

Policy 5

The Town and County should jointly enter into a service agreement in accordance with RCW 36.115 to compensate for imbalances in transportation or capital facilities levels of service as defined in the respective comprehensive plans. The basis for this service agreement should be the analysis and evaluation results obtained from Policies 2 and 4 of this section.

Policies for Designation of Unincorporated Urban Growth Areas

Policy 1

For San Juan Island, in addition to the joint policies for the Friday Harbor UGA (above), the County shall consult and cooperate with the Town of Friday Harbor regarding any potential new UGAs on San Juan Island that are not associated with the Town. The County shall solely determine the boundary for and regulations pertaining to other Urban Growth Areas. One Urban Growth Area should be located on each of the ferry-served islands of Orcas and Lopez.

Policy 2

The criteria for determining a UGA and its boundary should include the following:

a. Existing areas characterized by urban development or facilities or able to support urban levels of development; and

b. Projected needs for residential, commercial and institutional activities and uses for the UGA, parks and open space and other non-residential uses, and the amount of land necessary to support those uses; and

c. Protection of critical areas and resource lands, and the identification of and accounting for other lands with limited development capability; and

d. Other natural or topographic features which may serve to define the boundaries of the UGA.

Policy 3

The County should determine the portion of the 20-year population forecast which should be allocated to the UGA. The 20-year population forecast should, at a minimum, provide for the growth in population that is projected for the county by the State Office of Financial Management and consider seasonal fluctuations in population that are characteristic of the County.

Policy 4

Based on the evaluation called for in Policies 2 and 3, the County should determine the amount of land necessary to support the population allocation and its capacity for residential and non- residential uses.

Policy 5

The County should identify additional commercial and other non-residential uses required to serve rural areas outside the UGA, but required to be located within the UGA, and determine the amount of land in the UGA necessary to support those uses.

Policy 6

The County should determine a reasonable land market supply factor for each UGA, and determine the additional amount of land in the UGA necessary to provide for this.

Policy 7

Based on the results of Policies 2 through 6, the County should determine the interim boundary of each UGA.

Policy 8

The County should define the levels of service necessary to support urban levels of development within each UGA.

Policy 9

The final boundary of each UGA should be adjusted as necessary based on the results of capital facilities planning.

Addenda

List of team leaders for each Element

These folks have kindly volunteered to be the point of contact for material collection on a given element:

Element	Team Leader	Email, Phone	Supporters
Capital Facilities	Greg Sawyer	gregts@sanjuanco.com 317.8808 or 370.0549	OPALCO
Transportation	Todd Nicholson	toddn@portfridayharbor.org	Bill Seversen, OPALCO
Land Use	Linda Lyshall	linda@sjislandscd.org	LCLT, OPALCO, Winnie Adams
Natural Resource Land	Linda Lyshall	linda@sjislandscd.org	LCLT
Housing	Sandy Bishop/Rhea Miller	LCLT@rockisland.com	
Water	Linda Lyshall	linda@sjislandscd.org	Kyle Dodd, Winnie Adams
Utilities	Jay Kimball	jay@mountaincedar.com	Foster, Brian, Vince, Bill Severesen
Population, Land Use Analysis, SEPA,	county consultant		

List of Participants and Contact Information

In preparing this material, OPALCO consulted with a number of stakeholders, including:

Name	Subject	Organization	Email, Phone
Paul King	generalist, agriculture		pauljohnking@gmail.com
Greg Sawyer	capital facilities	SJC Facilities Manager	gregts@sanjuanco.com 317.8808 or 370.0549
Todd Nicholson	transportation	Port of Friday Harbor	toddn@portfridayharbor.org
Linda Lyshall	land use, utilities	Conservation District	linda@sjicd.org
Kyle Dodd	water resources management committee	SJC Environmental Health	kyled@sanjuanco.com
Ryan Page	housing	Affordable Housing Coordinator	ryanp@sanjuanco.com
Sandy Bishop/Rhea Miller	housing	LCLT	LCLT@rockisland.com
Rick Strachan	utilities		bakerview247@me.com
Chris Greacen	utilities		chrisgreacen@gmail.com
Chom Greacen	utilities, housing	LCLT, Is Energy	chomsgreacen@gmail.com
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Bob Maynard	planning, land use, housing	EPRC	mayorcas@rocksiland.com
Bill Seversen	land use, trails		bill.fairhope@gmail.com
Victoria Compton	economy, jobs	EDC	victoria@sanjuansedc.org
Bob Dash	education, STEM	Orcas School	rdashing46@yahoo.com
Winnie Adams	utilities	OPALCO	winniebob11@gmail.com
Bob Gamble	planning		winniebob11@gmail.com
Bill Appell			appelllb@aol.com
Nora Ferm			nora.ferm@gmail.com

Others? If there are others you want to reach out to, talk with your peers, act as a clearinghouse

Notes from first meeting on Lopez Island

San Juan County - A Model Community

Coalition for a Sound SJC Comprehensive Plan

PURPOSE:

To begin a dialogue among community leaders to inform and improve the planning process for San Juan County's Comprehensive Plan update for the next 20 years. The Plan provides direction to the County for policy setting in its role as a government and service provider. Sustainability and resilience are key components that need to be woven into the Plan. We believe it is important to define the interrelated aspects of a model community, recognizing the diverse concerns and needs of the full spectrum of constituents in the County.

DRIVERS:

- Changes in the physical environment, population, technology, transportation and more is accelerating. These drivers external to SJC affect how elements of the 1998 Plan such as Land Use, Water Resources, Housing, Transportation and Utilities must evolve.
- Opportunities will be lost if we wait 10 or 20 years to adopt remedies.
- The impacts of Climate Change on local topography, geography and economy will lead to property tax loss and rising costs to protect infrastructure.
- We can not expect leadership and support from the federal government for remedies.
- SJC needs for a plan to meet Washington State's carbon reduction goals.
- Planned shutdown of northwest coal plants and potential breaching of the Lower Snake Dams will reduce the availability of clean electricity from Bonneville Power Administration while costs increase.
- San Juan County is vulnerable due to dependence on undersea power cables. We need greater resilience through development of multiple electricity options.
- Some citizens want to control their energy future.

POTENTIAL SCOPE (Items with strike though are outside the scope of the Coalition)

Existing Comprehensive Plan Sections

- Governance
- Shoreline Master Plan
- Historic and Archeological Preservation
- Economic Development
- Administration
- Capital Facilities
- Housing
- Land Use
- Water Resources
- Transportation
- Utilities

- Parks, Trails and Natural Areas (?)

Additional Elements

- Carbon reduction goals
- Resilience and Independence goals

WORK PLAN:

- Create an ad hoc coalition (see participants list) to develop a framework on sustainability and resilience to be incorporated in the SJC Comprehensive Plan. Working title is “Coalition for a Sound SJC Comprehensive Plan.”
- The framework should be at a high level and technology neutral to take advantage of new opportunities.
- At appropriate points interact with SJC Council and the broader community.

COALITION PARTICIPANTS

- Common Sense Coalition (?)
- Eastsound Planning Review Committee
- Friends of the San Juans
- Housing Bank Commission
- Islands Energy Coalition
- OPALCO
- Port Districts
- SJC Planning Dept (?)
- SJC Conservation District
- Trails Committee
- Water Resources Management Committee

Additional Material:

San Juan County June 2016 Attachment A, Periodic Update Checklist for Counties for the GMA, put out by the Department of Commerce. The highlighted areas are indeed relevant.

Vince Dauciunas - Remarks to County Council

President, OPALCO Board of Directors

Jan 5 2017

Good morning.

I am Vince Dauciunas, President of the OPALCO Board of Directors. I have been on the Board since 2011. I would like to thank the Council for the opportunity this morning to speak about the subject of Sustainable Energy in San Juan County.

[I will be reading some prepared material, and please fell free to ask questions at any time.]

Much of the material I will cover this morning is covered in more depth in the December 2015 OPALCO Integrated Resource Plan, which is publicly available on the OPALCO website [https://www.opalco.com/wp-content/uploads/2015/12/Integrated-Resource-Plan-IRP.pdf].

The electric utility resource planning law, 19.280 RCW, requires all state electric utilities to develop and update Resource Plans (RP) or Integrated Resource Plans (IRP). They must make them available to the public every two years. Utilities must provide the Department of Commerce with a summary of estimated future resource needs ten years forward. Commerce reports aggregated load and resource estimates to the legislature each reporting year. [http://www.commerce.wa.gov/growing-the-economy/energy/utility-resource-plans/]

Utilities with less than 25,000 customers and/or 100% BPA customers must complete a Energy-Resource-Plan-Cover-Sheet-2016, which is a simplified load forecast spreadsheet.

Even though OPALCO is not required to submit a full IRP, we felt that it is an Industry Best Practice, and we consider the IRP a living document which informs our Long Range Plan and assists us in providing the flexible and efficient infrastructure to sustain the grid needs of our membership for the future.

We have identified 5 themes which are shaping the energy eco-system:

Emerging Trends are Altering the Industry

Across the country and throughout the world, the electric utility industry is changing. Technological advancements, regulatory requirements and increasing levels of variable generation are reshaping not only how and where energy is generated, but also how customers use it.

Important for OPALCO is the potential growth of local renewable resources (solar, wind, bio-mass, and possibly ocean tidal). Local renewable generation requires a responsive, supportive electric grid and additional flexible resources to balance the system in order to continue meeting members' energy needs for reliable, safe and affordable energy.

Distributed Energy Resource Variability Requires Flexibility

The grid is becoming more local and distributed. Coop member homes and businesses are now able to sell energy to OPALCO.

Over the long run, integrating the next generation of energy resources will require more than just increasing the number of solar PV or wind power installations. An adaptation of current systems is also needed. The energy infrastructure in place today was designed to flow power to customers. Now, and increasingly in the future, power is not only flowing to customers, but is also flowing from customers and will challenge today's grid. This change is ushering in new platforms—a broader array of energy resources, a two way, real time communication network to support them, and a smarter energy system to integrate them. Managing and meeting these challenges will guide OPALCO in developing needed assets, integrating advanced technologies and adding responsiveness and reliability to the grid.

Adapting to "the other end of the cable"

Our connection to the mainland is essential to meeting the 70+ MW peak energy demand of the county. The grid has been well maintained and in great shape. OPALCO is leveraging this investment, using it as a firm foundation for growing new energy resources.

Over the 20 year IRP planning horizon, it is expected that significant changes will occur in the way we receive power. The stable, multiyear relationship with BPA can not be automatically assumed to be static. OPALCO must assure a technically and politically stable source of power in the future. Strategic partners such as PNGC will be an essential tool for reducing risk and diversifying resources.

Evolution of Member Needs

Members are expected to become more active in their desire to control their energy costs, and an increasing number will become generators of power. That power is often intermittent, so the integration of member generated energy must be done in a way that maintains and enhances grid reliability. There will be expectations of new products and services to meet these needs.

Climate Change Adaptation Planning becomes "not optional".

Members demand action for goals and plans to assure that vital public services are ready to cope with the effects of Climate Change. The IRP process continuously incorporates "best available knowledge" from the Industry, and especially utilities which may share some geographic, climatic, or demographics similarities with OPALCO.

Two good sources of information about climate change are:

Climate Impacts Group at the University of Washington. Their latest report is:

"State of Knowledge: Climate Change in Puget Sound" November 2015

http://cses.washington.edu/picea/mauger/ps-sok/PS-SoK_2015.pdf

Fact Sheet May 2014 "BPA prepares for a changing climate"

https://www.bpa.gov/news/pubs/FactSheets/fs-201405-BPA-prepares-for-a-changing-climate.pdf

Now, I would like to present some information to put the above themes in a more specific context.

San Juan County consumes approximately 200,000,000 kWh of electric power per year.

This works out to an average hourly load of about 23MW. There are about 2,000 Commercial/Industrial accounts, and 12,800 residential metering locations. Peak demands occur in the winter months, and can reach 63MW, and the minimum summer demand can be as low as 11MW.

The average monthly residential usage is a bit under 1,000kWh per month, dropping to 600kWh/mo in the summer, and rising to 1,400kWh/mo in the winter.

The average monthly commercial use is 2,500kWh/mo.

The load forecast projects total energy purchases rising to 233,000,000 kWh in 2033, which is a 1%/yr growth rate.

There are about 220 member owned power generating facilities connected to the grid. There are three micro-hydro systems, one hybrid solar-micro-hydro, one 10kw wind generator with 25kw of solar panels, and the rest solar PV ranging from 1kW to 50kW. There is a bit more than 1MW of renewables connected, and they generate about 1,000MWh, or 0.5% of total use. The remaining 99.5% is purchased from BPA.

In San Juan County, each 1kW PV array will produce on average 1,200kWh per year. However, the output varies by month from a low of 38kWh in December, to a high of 164kWh in July. This is a nearly 6:1 annual variation.

A house that is “net-zero”, that is, one which has enough solar PV to generate as much power during the year as it uses, will on average import power for 6,000 hours per year, and export power for 2,500 hours per year [The average house using 1,000kWh/mo can be made “net-zero” with a 10kW solar array]. Depending on load profile, there are less than 100 hours per year where consumption and generation balance. A “net-zero” house essentially uses the grid as a big battery.

The price of solar PV systems continues to drop. And the price of power from BPA will continue to rise. Historical increases have been on the order of 6% every two-year rate cycle. The National Renewable Energy Labs publishes quarterly reports tracking the cost of installed residential, commercial, and utility scale solar. A number of other reports track this, and project the cost going forward. Today, it is estimated that Residential solar will reach “grid parity” in 3-4 years, and utility-scale solar will reach grid parity in 6-8 years. This means that in 6-8 years it will cost the same to build and operate a utility scale solar array as it does to purchase the same amount of energy from BPA. In the long run, projections show positive NPV’s for both residential and utility scale solar.

So solar has a definite future in San Juan County as a significant renewable resource.

To generate 20% of our annual use would require 33MW of installed arrays. This would require about 320 acres of land, about the size of Sperry Peninsula on Lopez Island for reference.

What about wind?

Contrary to conventional wisdom, San Juan County does not have a high average annual wind velocity. You can see this in maps that NREL publishes [http://www.nrel.gov/gis/wind.html]. Companies such as Visala in Seattle provide multi-year high resolution wind data sets. Using one of these sets, the performance of various size wind turbines was simulated. For example, a 6kW Bergey turbine at 120 feet agl (above ground level) produced 6,600kWh per year, which is not as good as 6kW of solar arrays at 7,200kWh/yr. The combination of the two together however, is better than 12kW of solar arrays, as the wind production is better in the winter, and the solar is better in the summer. A 10kW wind turbine costs from $48K to $65K, while a 10kW solar array costs from $28K to $35K today.

What about tidal?

Snohomish PUD did a preliminary study of the potential for tidal power generation around the San Juan Islands. In a June 15 2006 permit application document, SNOPUD described an array of underwater turbines that on average would produce 5.3MW and 33,270MWh/yr. This would provide 16% of the total for San Juan County. SNOPUD decided not to pursue a pilot project here. While tidal has the potential for generating clean power, there are significant issues about cost, long term reliability, and environmental concerns that must be addressed.

What about Bio-Mass?

This is an interesting technology that might contribute to a local distributed energy production portfolio. Specifically, the simultaneous production of Bio-char and electricity. Bio-char is charcoal used as a soil amendment. It is made from biomass via pyrolysis. An example of this is an installation that processes 55 lbs/hr of biomass, produces 25kWh of electricity, and yields 20lbs of biochar/hr. The unit is about the size of a standard modular freight container.

The entire process is carbon-negative. If the unit is run 8 hrs/day, it would produce 73,000kWh, or the equivalent of a 60kW solar array. Larger units have demonstrated the ability to generate electricity in the $50/MWh range. Biochar’s use as a soil amendment may be in the 1000’s lbs/acre, and sells for 10 cents/lb.

What about EV’s?

San Juan County is an excellent location for Electric Vehicles (EV). Short driving distances and low speeds make the limited driving range of the EV practical. According to the Washington State Department of Licensing, as of December 2014 there are presently 131 EV registered in the county.

In 2014 OPALCO purchased 214,000,000 kWh(s) of energy from BPA. The portion of that power which was used to charge the 131 EV units registered in San Juan County is estimated to be less than 43,000

kWh's per year. In the load forecast, in 20 years (2035), EV cars may require up to 8,400,000 kWh(s) of yearly energy. The industry is looking at EV's as a "distributed energy resource". A fleet of 1000 EV's can be considered as 1000 25-60kWh [25-60MWh combined capacity] batteries, and the terms EV2G (EV-to-grid) and G2EV (Grid-to-EV) are used to describe the concept and architecture by which EV's can be integrated as both a power and a storage source.

What about CO2?

We consume 200,000,000 kWh/yr of electricity from a very clean source, BPA. At 48 lbs/MWh, we're responsible for 4,800 tons CO2.

We have 12,000 registered vehicles and burn approximately 2,700,000 gals of gasoline/yr. At 19.6lbs/gal that works out to 26,500 tons CO2.

Several thousand households burn 2,000,000 gallons of propane and ~1,800 cords of wood for another 18,650 tons CO2.

Just these three contribute about 50,000 tons (49,950) tons of CO2.

Now, Washington state set a goal of reducing emissions by 25% below 1990 levels by 2035 and 50% by 2050. It is the law, RCW 70.235.020 passed in 2008. And progress is reported every year.

How could San Juan County get there? How could we reduce emissions significantly?

Replace propane and wood with electricity, reduce 18,650 tons CO2 and add 1,600 tons CO2 from electricity for a net reduction of 17,000 tons CO2.

Reduce CO2 by 2-3 tons/yr for each EV that replaces a 30MPG ICE, so let's assume 1,000 EV vehicles replace ICE vehicles and subtract 2,000-3000 tons/yr, and add back in in 70-100 tons for electricity.

Total reduction of 20,000 tons, or a 40% reduction in total CO2.

Conclusion

There is a positive economic and environmental case to be made for increasing renewable energy production in San Juan County. Local energy production integrated to the grid in a planned, incremental way can improve supply reliability, hold down cost increases, and contribute to a significant decrease in overall CO2 emissions.

[OPALCO will be submitting recommendations to the Comprehensive Plan review process, specifically to the Utility and Transportation elements sections]

I'd welcome your comments and questions now.

— —

Bill Watson - Q/A

Questions from Council Member Bill Watson

June 30, 2017

From: Vince Dauciunas

President, OPALCO Board of Directors

Q1. What should The County be thinking about as it plans for its energy needs for the next 20 years?

"Transition carbon fuels to the cleanest fuel - electricity, which helps keep electricity (the most popular form of energy in homes) lower cost, while reducing carbon footprint."

"Consider the TOTAL energy needs of both County Operations, as well as the County as a whole. This includes electrical and carbon based fuels."

For County operations:

A. Based upon the Comprehensive Plan, prepare an "Energy Budget" that forecasts the electrical energy and non-electrical energy use anticipated to be consumed by all county operations. This is similar to OPALCO's periodic Load Forecast (link to website).

B. Establish a baseline of total energy use by function (buildings, transportation, etc).

C. Review and update the Plan periodically (perhaps every two years). Energy technology will continue to be quickly changing, and implementation and budgeting decisions are likely to change.

D. Establish goals and timelines for how Energy use by function will transition. For example, "As of 2017, County vehicles consume X gallons of gasoline, diesel, propane per year. By 20XX, this will change to Y gallons of gasoline/diesel/propane and Z kWh of electricity, for a savings of $W/yr, and a reduction of U tons/yr of green house gases."

E. Work closely with OPALCO to understand how to balance EE&C (Energy Efficiency and Conservation) with Local Generation.

F. Consider the concept of "microgrids". Microgrids are an area, a building, a facility, or other collection of load, generation and/or power storage that can be "islanded" from the power grid and run self sufficiently for a finite time period. Microgrids are considered to be a component of an evolving grid which can contribute to improved resiliency, efficiency, and cost control.

G. Consider the possibility of the County becoming an Energy Generator. This could take the form of Solar Farms, Biomass power generation, potentially in the future, hydrogen production or algae/ cyanobacteria to biofuel facilities.

H. Consider the possible need in the County for increased use of desalination systems for fresh water. The energy requirement for Seawater Reverse Osmosis Desalination (SWRO) is in the range of 6.8 – 8.2 kWh per thousand gallons.

I. Establish a network of "energy peers". These would be other counties or cities that share similar characteristics with San Juan County and with whom the County can share best practices, technical implementations, economic data, etc.

For San Juan County:

A. Consider setting a Greenhouse Gas Reduction Goal consistent with the current State of Washington (Washington State set a goal of reducing emissions by 25% below 1990 levels by 2035 and 50% by 2050. It is the law, RCW 70.235.020 passed in 2008. And progress is reported every year).

B. Conduct a County GHG audit and update periodically (i.e. every two-three years).

C. Use the GHG Reduction Goals as a driver to help make energy choices that further this goal.

Q2. What specific objectives can The County set and strive to achieve for energy conservation / reduction?

"Align public policy and building standards to do EE&C at construction time, when implementation cost is lowest. Transition county passenger vehicles to EVs (~75% reduction in energy use and cost). Transition heavier vehicles as technology becomes available.

A. Consider the example of Fort Collins, CO. They are a competitor in the Georgetown University Energy Prize. Their website is: http://fortzed.com

B. Based on the Fort Collins model, San Juan County could set a goal of making the "downtown" districts of Friday Harbor, Eastsound, and Lopez Village as "net zero" districts. That is, these defined geographic areas, through local generation, EE&C efforts, and "wireless" techniques (primarily energy and CO2 credits) produce as much energy as they consume.

C. Consider adopting the "US Mayors Climate Protection Agreement" as endorsed by the 73rd Annual US Conference of Mayors meeting, Chicago, 2005. http://www.mayors.org/climateprotection/documents/mcpAgreement.pdf

D. Consider updating Resolution 8-2008 "A Resolution of San Juan County of Declaration and Resolution on Climate Change" and assessing County progress on the actions outlined in the resolution.

E. Consider establishing a "Climate Change" element for the Comprehensive Plan. If not in the Comp Plan, then as a stand alone document to inform the County on actions to take on responding to a changing local climate. See attached example from the City of Thousand Oaks, CA. (http://www.toaks.org/home/showdocument?id=3240)

Q3. How can The County be more energy self-sufficient, through normal operations and emergencies?

A. Consider the concept of "microgrid" for county facilities.

B. Perform an energy audit to establish normal use and determine the minimum energy required during an emergency situation.

C. Work with OPALCO to analyze the role that battery storage and local distributed generation can play in increasing County operations resiliency.

Q4. When will OPALCO have a fully "smart grid" that The County and other Essential Facilities should support / connect to and how can they best take advantage of it?

"A fully "smart grid" will be many years in implementation. Normal OPALCO CWP's (Construction Work Plans) outline the infrastructure investments that OPALCO plans to make on a 4 year basis. The IRP (Integrated Resource Plan) outlines the longer term (20 year) outlook on how the grid will evolve. Currently, the main components of the "smartgrid" include a) a fiber optic backbone communications infrastructure, b) IED's (intelligent end devices) such as switches, protection devices, voltage regulators,

and many more, c) the SCADA (Supervisory Control and Data Acquisition) system which is the computerized control system, d) software applications that utilize SCADA data for diagnostics, outage management, optimization, and more, and the physical transmission and distribution hardware. All of these components will be evolving over time to incrementally implement the “smartgrid”. The pace of implementation will be determined by the levels of investment that OPALCO can prudently make, as well as the expected decline in the costs of those components used in the implementation.”

Q5. What has been The County’s historical energy use and trends?

A5. OPALCO can provide this data.

Q6. Can OPALCO provide historical electrical usage by The County?

A6. Yes

Q7. What other energy consumption data should The County gather & analyze?

“Besides electrical power consumption, which OPALCO can provide, it would be useful to have primary data for 1) Fossil fuel consumption (propane, gasoline, diesel fuel, industrial gases, etc) and 2) Biomass combustion (wood, other biomass, waste). Other than electricity, these other sources currently have to be estimated by use of secondary research. These are important in establishing a baseline county CO2 footprint, as well as modelling the economic benefit of “fuel switching” from carbon fuels to electricity.”

Q8. What County Policies are inhibiting energy conservation / usage reduction / alternative source investment?

“Reduce fossil fuels first. They have the least investment in EE&C. OPALCO is a leader and we are happy to lead helping county make fossil fuel homes, business and transportation more efficient, as it is doing with its electric members.”

“It is unclear that any specific policy is an inhibitor to those goals. Rather, it is that those goals have not been made more specific or prominent, than those in Resolution 8-2008.

The county could take a leadership position by getting more specific, incorporating three proven elements of project management, namely a) an Objective, the more specific the better (i.e. cut fossil fuel useage by 20%), b) a timeline (i.e. 10% by 2020, 20% by 2023), and c) an owner and a progress review process.”

Q9. Is “energy efficiency” still the most effective way to save money and reduce resources?

“The most bang for the buck comes from fuel switching - 400%+ efficiency improvement switching to EVs and ductless heatpumps.”

“EE&C is the most cost effective “source” of electrical energy.

Q10. What County Policies could be enacted to encourage energy conservation / usage reduction / alternative source investment?

“Local carbon tax on gasoline to fund charger network or EE&C initiatives? Similar to lodging tax?”

Q11.Is there any County Code that would inhibit tidal energy generation, wind generation, solar generation?

“A thorough review of County Codes would need to be done to answer this at this time. OPALCO and RockIsland LLC have been able to conduct their infrastructure projects without undue burden based on existing Codes. For the future, the following should be considered.

A. It is expected that individual residential solar arrays as well as community solar and utility scale solar will increase in San Juan County. “Grid Parity”, or that point in which the production of electricity from solar is equal to OPALCO retail rates to customers and wholesale rates from BPA is estimated to be 3-4 and 7-8 years in the future respectively.

B. There are implications from this for zoning and land use planning.

C. There is the concept of “Right-to-solar”. Simply put, this means that if a solar array is put into operation, and over time, neighboring foliage, trees, or new construction blocks the array, what should be the owner of the array’s rights? This is similar to many HOA’s establishing view corridors which establish a right to a view a point in time, and must be maintained by homeowners in the line of view bu CC&R’s of the HOA.

D. A 1MW array will occupy approximately 5 acres. A 200kW array will occupy about 1 acre. If the county were to generate 20% of total annual kWh’s used from solar arrays, it is estimated that a total of 300-400 acres of surface would be required. It is not clear how current land use codes treat this. Which designations should allow what size of installation.

E. Wind generation is not anticipated to be as significant as solar in San Juan County, but it should still be considered from a zoning and land use perspective. Economically useful wind energy can be found at 50 meters (150 feet) above ground level. There is one significant wind turbine on Lopez Island that has been in operation for a number of years, for which production data is available.

F. Biochar, or the combustion of material at high temeperature and low oxygen levels has been found to be a carbon subtractive method for producing energy as well as a useful material for agriculture. It may be possible that a number of small units (55lbs/hr input, 25kWh output) could be put into operation that could add a few percent of local energy generation and a valuable soil amendment for ag purposes. Again, in which land use designations should this be allowed, and what emissions standards should be applied?

G. Tidal generation holds promise for San Juan County. Recently, OPALCO visited with SNOPUD and was brought up to date on their experience and preliminary research on the potential for tidal energy production in Puget Sound. A small scale (several MW’s) installation may be possible in the future as pilot projects around the globe sort out the most effective technologies. Assuming a viable technology (surface, subsurface, turbines, floats, etc), the biggest challenge will be environmental permitting. OPALCO’s recent success in obtaining permits for the Lopez-San Juan submarine cable replacement is encouraging with respect to the ability to secure the land based component of a possible tidal generating system. The ocean based permitting process complexity is unknown at this point in time.

Q12. What should the County add to the County Comprehensive plan in the area of Energy?

A. “Goals and Timetables related to Climate Change”

B. “Enabling” language that sets local generation and storage as a goal, and that expects that over time, zoning and land use designations will not unduly burden energy projects as long as they are consistent with other elements of the Comprehensive plan.

Q13. Should The County eliminate permit fees for renewable energy installations?

“It depends on the amount of the fee with respect to the total cost of the installation, and the uses to which the fee is put. Does it go into the general account, or is it otherwise purposed?. Could the permit fee be dedicated to funding EE&C or fuel switching incentives?”

Q14. Should The County increase incentives for “energy efficiency” home improvements / upgrades.

Q15. Should The County provide incentives for implementing more “energy efficient” hot water heating solutions (Hot Water Heat Pumps)?

“And policy and building codes/standards. As well as marketing to new residents and anybody that buys land to build on.”

"The biggest opportunities for reducing GHG's in San Juan County are fuel switching for home heating, and transportation. Financial incentives for fuel switching should be considered, since it is of economic benefit to the home or business owner, as well as serving a public interest."

Q16. Should The County become a partner in tidal energy research / proto-type implementations?

"Might be interesting to see how other counties in tidal/wind areas embrace and support local renewable energy.

"Tidal generation holds promise for San Juan County. Recently, OPALCO visited with SNOPUD and was brought up to date on their experience and preliminary research on the potential for tidal energy production in Puget Sound. A small scale (several MW's) installation may be possible in the future as pilot projects around the globe sort out the most effective technologies. Assuming a viable technology (surface, subsurface, turbines, floats, etc), the biggest challenge will be environmental permitting. OPALCO's recent success in obtaining permits for the Lopez-San Juan submarine cable replacement is encouraging with respect to the ability to secure the land based component of a possible tidal generating system. The ocean based permitting process complexity is unknown at this point in time."

Q17. How should The County contribute to "public outreach" on energy conservation / efficiency goals and objectives?

"Construct a positive clean more resilient vision of our local future. In partnership with the lowest cost cleanest energy provider - OPALCO."

"Take a look at what other governmental entities are doing around the country.

It starts with commitment to realistic goals and timetables, coupled with a vision of why we are doing these things, and spending your tax dollars! Build a coalition of individuals and organizations that have "skin in the game". Do not underestimate the political complexity of this county in attempting to craft a message. Find success stories to support your goal and objectives. Consider creating an "Energy and Environment Dashboard" website, which shows

County progress in meeting Countywide Environmental Goals, and County Operations energy consumption (all types)." http://environmentaldashboard.org/brd/ as an example.

Q18. How does The County help to drive down the "cost of energy" in San Juan County?

"Fuel switch to the lowest cost cleanest most efficient energy - electricity. Over 80% of energy in the county goes to transportation, space heating and water heating. Electrify it all as economically feasible."

"Consider partnering with OPALCO with respect to seeking grants for some pilot projects in the areas of conservation, energy efficiency, and distributed energy generation and storage.

Q19. How can The County contribute to the reduction of "peak demand" points over the year?

"Make sure county vehicle fleet are V2G EVs, as that feature becomes available. This will allow the vehicles to source as DRU via Smart Grid control."

"Pay particular attention to Winter use, as this is when Peak Demands regularly occur in the County. Work with OPALCO to evaluate the potential for local battery storage to help meet peak demands.

Q20. Can The County enhance the new construction energy code to improve energy efficiency of new residences / major remodels – especially winter time?

"Yes - and summer as global warming increases AC use."

Q21. Is there an opportunity to reduce winter time peak usage w.r.t. the 50% of un-occupied homes?

A. "DRUs (Demand Response Unts) for seasonal homes on water heaters."

B. "The use of connected smart thermostats (i.e. Nest) shows great potential for reducing energy use. With owner agreement, the utility can reduce temperature settings as needed, on a pre-arranged schedule, or in any acceptable fashion. Rather than a seasonal residence being set at 65 degrees or so, it could be set to 50 degrees, and raised up for a particular cold spell, or when the owner anticipates returning to occupy. This experiment has been conducted by a number of utilities.

C. The use of distributed battery storage has the potential for better managing short term peak demands.

Q22. Can The County affect the amount of gas/diesel used on-island for vehicle transportation?

"Yes. Start with low hanging fruit high use passenger vehicles. Add EV buses/vans for shuttle, similar to Seattle EV buses. Look at Electric tractor trailers being used to move containers from LA port to warehouse district. Short-haul apps like Oak Harbor freight, from Burlington freight nexus to islands. Tesla and others are working on EV freight options."

Q23. Could we move toward an all electric local transportation solution?

"There are approximately 12,000 registered vehicles in San Juan County.

Let's do a quick "back of the envelop" calculation. Assume the average EV in the future has a 60kWh battery, and a 200 mile range. Let's assume the average vehicle drives 600 miles/month. Then, each vehicle would charge 3x a month. That's 60kWh/charge x 3 charge/month x 12months x 12,000 vehicles (worst case). That comes out to 25,920,000 kWh/year, which is a 13% increase on the current 200,000,000 kWh load for San Juan County.

Technically, this is in the realm of possibility with respect to the carrying capacity of the BPA cable from the mainland, but would require an in depth analysis of the "hosting capacity" of the current transmission and distribution lines. The current OPALCO load forecast assumes an 8,400,000 kWh load increase due to EV's by the year 2035.

Q24. Is there more data tracking and reporting that would be beneficial to understand current utilization and project improvements?

"Consider creating an "Energy and Environment Dashboard" website, which shows

County progress in meeting Countywide Environmental Goals, and County Operations energy consumption (all types)." http://environmentaldashboard.org/brd/ as an example."

Q25. Should we focus on the Peaks and valleys, rather than the averages?

"Need to focus on both, as limiting peaks, and controlling the average require different investments, different technology, and produce different ROI's."

Archive of Workgroup Member Material

Contributor name, organization, material, applicable element

From Rich Strachan

Notes from Rick

Red text is new language specifically for SJ County. The black text is “old” or existing language that were gathered from a variety of county sources around Washington State.

Insert the suggested language in appropriate sections of the existing Comprehensive Plan Section 8.5

Material

DRAFT OF COMMENT/SUBMISSION TO UTILITY ELEMENT

SUBTOPIC
New code language to be inserted in San Juan Comprehensive Plan Section 8.5 Renewables

VISION
Update the Comprehensive Plan to include specific siting parameters and rules for various forms of small-scale, residential renewable energy projects

CHALLENGES
No such code language now exists, complicating efforts to more easily deploy available RE technology to homeowners or builders who wish to incorporate these technologies in their plans.

GOALS
Write clear, concise, logical regulations that are easy to understand, permit, and implement. Have this suggested language adopted by Planning Staff and incorporated into County building codes

TARGETS
San Juan County Community Development planning staff

OBJECTIVES

1. Encourage homeowners and business to install SWES (small wind energy systems), PV (photovoltaic, or “active solar” arrays) and DSHW (domestic solar hot water systems).

2. Include in the ordinance language that exempts PV and DSHW from land use review and directs the issuance of building permits for these systems to be over-the counter.

3. Include in the ordinance language that identifies through a matrix where SWES can be located and their maximum heights and number per tax lot, and establish a special procedure to expedite the land use review of these applications.

4. Establish a special schedule of flat fees for the permits of all RE systems that is partially de-coupled from the value of the equipment. **Flat fees should be no more than 1% of the post-rebate or incentive(s) costs of the materials.**

STRATEGIES

Submit material specifically written for staff via the Comprehensive Plan review process.

PERFORMANCE METRICS:

Number of RE permits issued

REVENUE SOURCES, FUNDING, ECONOMIC BENEFIT

Savings from increased efficiency in permitting projects, increased RE applications once applicants realize that clear, concise and logical rules are in place to speed their applications through the permitting process.

COMP PLAN LANGUAGE:

Model zoning and permitting ordinance for Residential-Scale Renewable Energy Installations in San Juan County, Washington State

PERMITTED USE REGULATION FOR SMALL WIND TURBINES, RESIDENTIAL PHOTOVOLTAIC (PV) SYSTEMS

1. PURPOSE: The purpose of this ordinance is to facilitate the installation and construction of SWES (small wind energy systems), small (residential scale) PV or "active solar" systems and micro-hydro systems in San Juan County for private landowners, subject to reasonable restrictions.

2. FINDINGS: The [City/County] finds that wind and solar energy are abundant, renewable and nonpolluting energy resource and their conversion to electricity will reduce our nation's dependence on nonrenewable energy resources and decrease air and water pollution that results from the use of conventional energy sources. In Washington State, distributed small wind, solar (pv) and micro-hydro energy systems, designed and installed for onsite home, farm and small commercial use are an excellent technology to help achieve the goal of increased in-state electricity generation, diversify and enhance the reliability of the power grid, increase consumer energy independence and create nonpolluting energy.

Therefore, it is necessary to standardize and streamline the proper issuance of building permits for small wind energy systems so that this clean, renewable energy resource can be utilized in a cost-effective and timely manner.

3. DEFINITIONS: As used in this Ordinance, the following terms shall have the meanings indicated:

[City Council/BOCC] shall mean the local elected [City Council/Board of County Commissioners].

[City/County] shall mean [City/County] government.

FAA shall mean the Federal Aviation Administration.

Siting Permit shall mean a construction and operating permit granted in accordance with the provisions of this Ordinance.

Small Wind Energy System (SWES) shall mean wind energy conversion system which converts wind energy into electricity through the use of a wind turbine generator, and includes a wind turbine, rotor blades, tower, foundation, and associated control or conversion electronics, which has a rated capacity of not more than 100 kW and which is intended to primarily reduce on-site consumption of utility power.

Total Height shall mean, when referring to a Wind Turbine, the distance measured from the grade plan to the tip of the rotor blade when extended vertical to its highest point.

Tower Height shall mean, when referring to a Wind Turbine, the distance measured from the grade plane to the top of the structure that supports a wind turbine. This structure may be freestanding, guyed or a monopole.

Wind Turbine shall mean the parts of the small wind energy system including the rotor blades, generator, housing and tail.

Photovoltaic Energy System (PV) shall mean a solar energy conversion system which converts solar energy into electricity through the use of one or more photovoltaic panels which may be grouped in arrays, either mounted on rooftops, or ground-mounted on stationary racks or tracking mounts, and includes associated control or conversion electronics, which has a rated capacity of not more than 100 kW and which is intended to primarily reduce on-site consumption of utility power.

Micro-Hydro Energy System (Micro-Hydro) shall mean an in-stream device which converts the energy of the water passing through it into electricity through the use of propeller turbines, Pelton wheels or other turbine types and includes associated control or conversion electronics, which has a rated capacity of not more than 100 kW and which is intended to primarily reduce on-site consumption of utility power.

4. APPLICABLITY: The requirements set forth in this Ordinance shall govern the siting and permitting of small wind energy systems used to generate mechanical or electrical energy to perform work, and which may be connected to the utility grid pursuant to the Revised Code of Washington, Chapter 80.60 (Net Metering of Electricity), serve as an independent source of energy, or serve as part of a hybrid system.

The requirements of this Ordinance shall apply to Small Wind Energy Systems (SWES), PV and Micro-Hydro systems proposed after the effective date of this Ordinance. Any SWES, PV and Micro-Hydro systems for which a required permit has been properly issued prior to the effective date of this Ordinance shall not be required to meet the requirements of this Ordinance; provided, however, that any such pre-existing SWES, PV and Micro-Hydro systems that is not producing energy for a continuous period of twelve (12) months shall meet the requirements of this Ordinance prior to recommencing production of energy. No modification that increases the height of the system or significantly increases its output shall be allowed without full compliance with this Ordinance.

5. REGULATORY FRAMEWORK:

5.1. Comprehensive Plans: A SWES and Micro-Hydro system shall be constructed in areas consistent with the [City/County] adopted Comprehensive Plan. PV and solar collection systems for domestic hot water are permitted outright in all zones.

5.2. Principal or Accessory Use: A SWES, PV or Micro-Hydro system may be considered either a principal or an accessory use. A different existing use or an existing structure on the same lot shall not preclude the installation of a SWES, PV or Micro-Hydro system or a part of such facility on such lot. Any SWES, PV or Micro-Hydro system that is constructed and installed in accordance with the provisions of this Ordinance shall not be deemed to constitute the expansion of a nonconforming use or structure**Zoning:**

1) A SWES may be constructed on any [City/County] legal lot of record meeting the requirements set forth in Section 6 of this Ordinance. No such restrictions shall apply to the establishment of a PV or Micro-Hydro system.

2) Small Wind Energy Systems may only be constructed in zones according to the following matrix:

Lot Size Acres	# of Towers Allowed	Tower Type	Maximum Total Height in Feet	Maximum KwH per Turbine	Maximum KwH per Lot

0 - .5	0	--	--	--	--
.51 -1.5	1	Monopole	75	5	5
1.51 - 2.0	2	Monopole	100	10	20
2.1 - 5.0	2	Monopole, Guyed, Lattice	125	10	20
5.0+	2 or 1 per acre in excess of 5 acres	Monopole, Guyed, Lattice	150	100	100

6. GENERAL REQUIREMENTS FOR SMALL WIND ENERGY SYSTEMS:

6.1. Visual Appearance; Lighting; Powerlines:

The following visual appearance, lighting and power-line requirements shall apply to all SWES.

1) Wind Turbines shall be painted a non-reflective, non obtrusive color. Small wind energy towers shall maintain galvanized steel, brushed aluminum, white or gray finish, unless FAA standards require otherwise.

2) At SWES sites, the design of the buildings and related structures shall, to the extent reasonably possible, use materials, colors, textures, screening and landscaping that will blend the SWES to the natural setting and the existing environment.

3) No SWES shall be artificially lighted, except to the extent required by the FAA or other applicable authority.

4) No SWES shall be used for displaying any advertising except for reasonable identification of the manufacturer.

5) Electrical controls, control wiring and power-lines shall be wireless or underground.

6.2. Setbacks and Tower Height:

The following setback and tower height requirements shall apply to all SWES; provided, however, that the [City Council/BOCC] may reduce the standard setback and tower height requirements if the intent of this Ordinance would be better served thereby.

1) Tower Height: The Tower Height of a SWES shall not exceed 150 feet, or the maximum allowed by zoning (see 5.3.2).

2) Property Lines: Each SWES shall be set back from the nearest property line a distance no less than 1.2 times the Tower Height, unless appropriate easements are secured from adjacent property owners, or other acceptable mitigation is approved by the Hearing Examiner or [City Council/BOCC]. No part of the system, including guy wire anchors, may extend closer than 30 feet to the property boundary.

3) Neighboring Buildings: At the time of application, each SWES shall be set back from the nearest non-participating building structure (i.e., buildings on neighboring land) a distance no less than on and a half (1.5) times its Total Height.

4) Communication and Electrical Lines: Each SWES shall be set back from the nearest above-ground public or private non-participating electric power line or telephone line a distance no less than 1.5 times its Total Height, determined from the existing power line or telephone line.

5) Lattice-type towers shall be constructed in such a way as to prevent nesting opportunities for birds.

6.3 Sound Levels and Measurement:

Audible sound due to SWES operations shall not exceed (60) dBA for any period of time, as measured at the closest neighboring inhabited dwelling on the date of approval of any SWES Siting Permit. The sound level may, however, be exceeded during short-term events such as utility outages and severe wind storms.

6.4 Minimum Ground Clearance:

The rotor blade tip of any Wind Turbine shall, at its lowest point, have ground clearance of no less than (20) feet, as measured at the lowest point of the arc of the rotor blades.

6.5 Safety:

The following safety requirements shall apply to all SWES.

1) Wind Turbine towers shall not be climbable up to 15 feet above ground level.

2) All electrical equipment shall be safely and appropriately enclosed from unintentional access by means such as barrier fencing, equipment cabinetry or similar means. All access doors to electrical equipment shall remain locked unless access is necessary.

3) Appropriate warning signage (i.e., electrical hazards) shall be placed on SWES equipment.

4) All SWES shall be equipped with manual and/or automatic overspeed controls to limit rotation of the rotor blades to a speed below the designed limits of the system.

6.6 Compliance With International Building Codes:

The Siting Permit for a SWES shall comply with all applicable sections of the Washington State Building Code and adopted International Building Codes.

1) Siting Permit applications for all SWES shall include standard drawings and an engineering analysis of the system's tower, showing compliance with the Washington State Building Code and International Building Code. The engineering must be completed by a licensed engineer certified to practice in the State of Washington. The engineering must include a complete analysis of the tower, the tower foundation and the connection of the tower to the foundation. A "wet" stamp shall not be required, provided that the engineering demonstrates that the system is designed to meet the most stringent requirements at the site for wind speed and exposure, seismic class, and the weakest soil class, with a soil strength of not more than 1,000 pounds per square foot.

6.7 Compliance With National Electrical Code:

All SWES shall comply with requirements per the Washington State Department of Labor & Industries (L&I) and the current adopted edition of the National Electrical Code (NEC).

6.8 Compliance with FAA Regulations:

All SWES must comply with all regulations of the Federal Aviation Administration (FAA), including any necessary approvals for installations close to airports.

6.9 Other Federal, State and Local Requirements:

1) All SWES shall comply with all current adopted Federal, State and [City/County] Laws, Codes and Ordinances including but not limited to [City/County] Code, Title ____, Title ____, Title ____, and Title _____.

2) All SWES shall comply with the requirements of Chapter 80.60 of the Revised Code of Washington, Net Metering of Electricity.

3) All SWES that are intended to participate in the net metering program shall meet all requirements of the [_____] utility district and provide a copy of a current, approved, site/system specific Schedule 150 Net Metering Agreement prior to permit issuance.

6.10 Removal of Defective or Abandoned Small Wind Energy Systems:

Any SWES found to be unsafe by the building official shall be repaired by the landowner to meet federal, state and local safety standards or removed within 3 months. If any SWES is not operational for a period of 12 consecutive months or more, the [City/County] will request by registered mail and provide 45 days such response for the landowner to provide corrective action. In such a response, the landowner shall set forth reasons for the operational difficulty and provide a reasonable timetable for corrective action. If the [City/ County] deems the timetable for corrective action as unreasonable, it must notify the landowner and such landowner shall remove the turbine at his or her own expense within 120 days of receipt of notice from the County. The [City/County} shall have the authority to pursue legal action if necessary.

7. GENERAL REQUIREMENTS FOR RESIDENTIAL PV SYSTEMS:

7.1. Compliance With International Building Codes:

The Siting Permit for a residential PV system shall comply with all applicable sections of the Washington State Building Code and adopted International Building CoDES

7.2Compliance With National Electrical Code: All residential PV systems shall comply with requirements per the Washington State Department of Labor & Industries (L&I) and the current adopted edition of the National Electrical Code (NEC).

8. GENERAL REQUIREMENTS FOR RESIDENTIAL MICRO-HYDRO SYSTEMS:

8.1. Compliance With International Building Codes:

The Siting Permit for a residential Micro-Hydro system shall comply with all applicable sections of the Washington State Building Code and adopted International Building Codes.

8.2. Compliance With National Electrical Code:

All residential Mycro-Hydro systems shall comply with requirements per the Washington State Department of Labor & Industries (L&I) and the current adopted edition of the National Electrical CODE (NEC)

From Todd Nicholson and William Severson

establishment of some minimum level of budgetary support for non-motorized routes and mass transit.

From Brian L. Silverstein - OPALCO board member, Lopez

A DECLARATION OF VISION AND COMMITMENT TO THE FUTURE OF SAN JUAN COUNTY

Preamble

WE THE PEOPLE of San Juan County recognize that these rural islands are an extraordinary treasure of natural beauty and abundance, and that independence, privacy and personal freedom are values prized by islanders. Being a diverse people bound together by these shared values, we declare our commitment to work towards this vision of the San Juan Islands in 2040 A.D.

Community

We envision a community that is primarily rural, made up of islands of varying character, each with its own unique qualities. The islands are places of peace and mutual tolerance, where citizens of differing backgrounds and beliefs respect each other's dignity, privacy, and freedoms. We communicate effectively and openly and work together toward goals identified as being for the common good. We foster a sense of neighborliness, of self-sufficiency, and community pride that has long been a part of our island character.

Basic Human Needs

Our islands are places where all citizens can safely walk or play, day or night. The drinking water supply is clean and adequate. Health care and help in time of need are accessible and affordable. The supply of affordable housing is adequate to meet the needs of our diverse population.

Education

Learning is a continuing lifelong process which is encouraged and aided by the community. A partnership of families and community creates a supportive and challenging environment founded on academic excellence and artistic expression. This educational environment produces ethical, self-directed, compassionate, responsible world citizens, alive with the love of learning.

Economy

We support a pattern of economic growth and development which serves the needs of our community, and which recognizes the rural, residential, quiet, agricultural, marine and isolated nature of the islands. Our economy comprises a wide spectrum of stable, year-round activities that provide employment for islanders. We support and encourage traditional industries including forestry, farming, aquaculture, construction, fishing and tourism without jeopardizing the resources on which they depend. We have home occupations and cottage industries which are compatible with surrounding neighborhoods. We encourage new ideas and new technology for improving the quality and profitability of our goods and services. Value-added activities are encouraged. Environmental conservation and sustainable development are balanced.

Natural Environment

Our islands have exceptional natural beauty and healthy diverse ecosystems surrounded by pollution-free marine waters. The air is fresh and clean, the water quality is excellent, and the soil is uncontaminated. As careful stewards of these islands, we conserve resources, preserve open space, and take appropriate action to assure healthy land and marine environments. Native plants and animals of the islands thrive, and are identified, appreciated and conserved.

Land Use

Neighborhoods, hamlets, villages and towns are clearly defined so as to conserve agricultural, forest, mineral resource and environmentally sensitive lands. These areas provide for commerce and community activities without losing their small scale and attractive island ambiance. There is housing for people of all incomes. The unique character of our shorelines is protected by encouraging uses which maintain or enhance the quality of the shoreline environment. Through innovative land use strategies, our citizens and institutions balance and protect private property rights, public rights, and our natural environment.

Transportation and Communication

We have water, land, and air transportation systems commensurate with our island culture. On-island circulation is by means of a system of scenic rural roads with automobile, bicycle and pedestrian ways functioning without conflict. In some places, the roads are unpaved, narrow, and winding, and care is taken to maintain a rustic quality in public signs. Expansion or new construction of basic public transportation facilities occurs only on the basis of demonstrated local public need and with an objective of reducing our carbon footprint. Advanced interactive communication systems accessible to all are developed

Energy and Resources

Our community fosters resource and energy sustainability, independence and resilience with a focus on reducing our carbon footprint. Reducing, reusing and recycling of solid waste, and sewage treatment, are managed within the the County to the greatest extent practical. Renewable resources are developed consistent with our values.. Nonrenewable resources are conserved and replaced by renewable resources whenever practical.

Arts, Culture, and Recreation

Our community nurtures the expression of its creative talents and supports diverse cultural and entertainment activities. Our cultural facilities such as libraries, museums, and theaters are focal points of activity and community support. Well managed parks, trails, and shoreline access, where appropriate, provide islanders with recreation with due regard for both the rights of private property owners and the natural limitations of each site.

Heritage and Historic Preservation

Our community is enriched by a strong sense of identity, tradition, legacy, and continuity, where past and present freely mingle. We recognize the contributions to our rural and maritime heritage made by indigenous peoples, explorers, and island pioneers, and encourage the preservation of that heritage. We encourage preservation of historic sites, structures, and traditions for the enjoyment of all.

Governance

We are self-governed by informed citizens. We are equally represented by elected officials who conduct the activities of government in an ethical, fair, impartial, responsive and open manner which recognizes the independent, self-reliant nature of its citizens. Our government institutions balance responsibility with resources and costs, consolidate services where practical, manage prudently, provide reliable data, are service-oriented, and perform in a timely manner.

Our Commitment

AS FORTUNATE CITIZENS OF THE SAN JUAN ISLANDS, WE COMMIT ourselves individually and communally to a future for ourselves and our children that reflects this vision. To this end, we, the undersigned individuals dedicate our time and our talents.

From LCLT - Sandy, Rhea, Rick, Chom

Housing element plus the updated Needs Assessment as referenced in the 2009 Housing Element.

Draft Submission to Housing Element

September 11, 2017
Submitted by the Housing Sub-group convened by OPALCO. (Chom Greacen, Rhea Miller, Rick Strachan and Sandy Bishop contributors).

In preparation for our comments we reviewed the 2009 SJC Housing Element, the 2017 SJC Housing Needs Assessment draft and also reviewed the Bellingham, Martha's Vineyard and San Diego comp plans.

We note that the 2009 Housing Element and the 2017 Housing Needs assessment both outline the housing issue and the challenges we face. But there are two areas of focus that that need to brought to light in the revised Comp Plan. They are: 1) Funding. Without funding mechanisms we see very little hope that that progress will be made. 2) Countywide metrics and policies to support energy efficiency, renewable energy production and healthy homes. 3) Further housing options on Ag Resource Lands contained within a designated footprint.

New Proposed 5.2 Housing Element suggestions:

Create multiple funding sources to accomplish the SJC housing objectives, goals and policies.

- Fund the San Juan County Housing Bank through a Real Estate Excise Tax and other funds.
- Establish a progressive fee structure for building permits on all new or remodeled homes where aggregate footprint of heated space is over 1,200 square feet.

Establish county-wide metrics and standards for energy savings and renewable targets and climate resiliency.

Require all new heated buildings in SJC to be more energy efficient, incentivize small building footprints and promote renewable energy sources.

- require all new heated buildings and remodels (where 50% or more of the building is remodeled) to be net zero by 2025.

Encourage health related improvements to older homes, including the removal of lead based paint, asbestos, and other potentially harmful materials.

Encourage housing retrofits to make older housing stock more resilient to natural disasters and climate change, are more energy efficient, and provide healthier indoor environments, including good air quality.
Specifically on 5.2.D. # 5 & 6
Change from 2009:

5. Study the potential of a permanent, voter approved, funding mechanism for Affordable Housing such as levy lid lift, Real Estate Excise tax or through some other means such as impact fees, property taxes, recording fees and revenue bonds.
Change to: 5. Fully fund the San Juan County Housing Bank through support of a permanent, voter approved, funding mechanism for Affordable Housing such as levy lid lift, Real Estate Excise tax or through some other means such as impact fees, property taxes, recording fees and revenue bonds and encourage the San Juan County Housing Bank to work with local established 501 c 3 housing organizations to market estate planning and other effective tools in order to bring more affordable housing into the market place.

Change from 2009:
6. Review, within 24 months of the adoption of this update, all development regulations for UGAs to ensure the regulations that enhance and encourage creation of denser, walking centered communities.
Change to: 6. Review, within 90 days of the adoption of this update, all development regulations for UGAs to ensure the regulations that enhance and encourage creation of denser, walking centered **communities.**

Comp Plan Ag Element Recommendations

Submitted by Sandy Bishop and Rhea Miller, Lopez Island
September 13, 2017

Rationale: Most of the US population lives 2 weeks away from starvation. If a natural, health, or economic event strikes, and food deliveries are stopped or delayed, stores would be cleaned out within days. For mainlanders, the easiest solution is for them to get in their vehicles and drive to a different location, such as is done in hurricane and earthquake events. Islanders have less options and must be more able to be self reliant. Local self reliance requires a strong and sustainable agricultural environment and the ability to process and preserve locally produced products. Therefore, in order to maintain the ability and availability of food products in a time of need, small-scale agriculture in the San Juan's needs to be healthy and long lived. In order to maintain the economic health of farmers, farmers need to have flexibility to create and distribute their goods on island, including small commercial kitchens, farm stores and farmstands.

The primary economic factors blocking successful long term Small-scale agriculture are:
- **Expensive land**
- **Limited help**
- **Limited local market period and access**
- **Aging of the current farmer population that holds the land**
- **Inability to recruit and maintain a younger skilled farmer population**
- **Large-scale farming underpricing small-scale farms**
- **Inability to apply value added processing towards their products in order to extend their**

marketability

• Inability to access a larger market either due to their farm location or financial resources

- **Market access for small-scale farming typically does not include commercial institutions such as grocery stores and restaurants because those institutions are more focused on profit and are less able to deal with varying quantities and availabilities. (e.g. Users of Sysco & Food Services of America deliveries)**
- **Not every farmer has the means to create and operate a commercially certified processing kitchen that would enable them to extend the life and marketability of their produce.**
- **Not every farmer has access to a farm stand on an appropriate roadway**

Environmentally sustainable farming practices that do not contribute to global climate change are small-scale farming operations that produce abundant food without depleting the earth's resources or polluting its environment. Small-scale sustainable agriculture follows the principles of nature to develop systems for raising crops and livestock that are, like nature, self-sustaining. Sustainable agriculture is also the agriculture of our cultural landscape, one whose success is indistinguishable from vibrant rural communities, rich lives for families on the farms, and wholesome food for everyone. (https://sift.ncat.org/small_scale.php**) Further documentation of these issues include:**

"Don't Let Your Children Grow Up to Be Farmers" The New York times Aug 9, 2014
The dirty secret of the food movement is that the much-celebrated small-scale farmer isn't making a living. After the tools are put away, we head out to second and third jobs to keep our farms afloat. Ninety-one percent of all farm households rely on multiple sources of income. Health care, paying for our kids' college, preparing for retirement? Not happening. With the overwhelming majority of American farmers operating at a loss — the median farm income was negative $1,453 in 2012 — farmers can barely keep the chickens fed and the lights on. https://www.nytimes.com/2014/08/10/opinion/sunday/dont-let-your-children-grow-up-to-befarmers.html?mcubz=0

"Small vs. large: Which size farm is better for the planet?" The Washington Post Sept 2, 2014
https://www.washingtonpost.com/lifestyle/food/small-vs-large-which-size-farm-is-better-for-theplanet/2014/08/29/ac2a3dc8-2e2d-11e4-994d-202962a9150c_story.html?utm_term=.bf6deeaae614
Daniel

Examples of how to have successful small-scale farming operations in the region, including other islands:
Successful (producing for 10 years or more) Small-scale farms share these common aspects of increasing their farm revenue:

- Multiple seasonal products that mature at various times throughout the year. (Suyematsu Farms. Bainbridge Island, April -> December)
- Ability to post-process the produce into longer lived higher valued products. (Jams, Salsa, Fermented products, Sauces, Yogurt, Cheese, Soup stock, etc)
- Opportunities for others to perform a post-process action on the local produce. (bakers, wineries, flavored ice-cream, etc.)
- Access to seasonal labor such as farm interns.

• Access and ability to maintain and share high value equipment and physical facilities. (Suyematsu, Bentryn, Paulson, Laughing Crow, and Butler Green farms. Bainbridge Island)

• More than 5 acres in cultivation.

• Ability to host “Farm experience” events (Heyday, Persephone, Educulture at Suyematsu Farms, Bainbridge Vineyards)

• Ability to provide communal farm intern housing. (Heyday, Persephone, Farmhouse Organics, and Bainbridge Island FoF intern housing)

Therefore we recommend:

Sustainable small-scale farming be promoted and supported in San Juan County.

Resource lands shall be incentivized to increase the practice of farming methodologies that sequester carbon and build healthy soils.

To further such goals, we recommend the UDC allow:

Farmers may share farm stands on major roadways

Farmers may share a commercial kitchen on a farm

Farmers may share a farm store of local produce and value-added products at a location adjacent to major roadways in rural lands. Store must be owned by the property owner or a local farm cooperative.

Additional sales of incidentals for enjoying the agricultural products (such as corkscrews, utensils, condiments— as butter, juices) to be sold in the farm store. Incidentals must not comprise more than 1/3 of store sales.

Farm Stores to display exterior to the store.

Housing for succession farmers, with the ability for the retiring farmers to live out a life estate on the farm and yet allow housing for the farmer succeeding those retiring on the same farm.

From SJICD - Nora Nickum & Linda Lyshall

San Juan County Comp Plan Update process

Climate change inputs – Land Use, Natural Resource Land, and Water

Contact: Nora Nickum & Linda Lyshall

Land Use

Suggested Comp Plan language

General policies:

New policy: Increase resilience by avoiding development in sites that are projected to be at risk from climate change impacts like sea level rise, coastal flooding, and inadequate water supplies.

2.2.F Natural Resource Conservation (or could go under Fish, Wildlife, and Native Habitat in the Water chapter)

New policy: Increase protections of rocks and islets that will remain above projected sea level rise for shore bird nesting, roosting, and rearing.

2.2.C Energy

Edits to previous policy: Provide opportunities within land use designations for the development and use of alternative energy resources which are compatible with the natural environment and will contribute to a reduction in greenhouse gas emissions.

Recreation (or might go under **Capital Facilities**)

New policy: Plan for impacts of sea level rise—and accompanying erosion—when undertaking new construction or conducting repairs and maintenance of roads, docks, trails, and campsites near the shoreline.

Natural Resource Land

Suggested Comp Plan language

2.2.F Natural Resource Conservation (previously in Land Use element)

Edits to previous policy 3: Encourage sustainable forest management in order to conserve forest lands, sequester carbon, and promote the retention and preservation of forest stands that are particularly important to visual aesthetics, wildlife habitat, groundwater retention and/or site stability.

Edits to previous policy 4: Protect and preserve, wetlands, critical marine and terrestrial wildlife habitats and wildlife corridors, including breeding grounds, resting and feeding areas for migratory birds, nursery areas and habitats of threatened, endangered and sensitive species. Include areas and habitats that can provide refuge for species that are vulnerable to climate change impacts like rising temperatures, and allow for migration of critical marine habitats as sea levels rise.

Edits to previous policy 5. Encourage the reclamation, rehabilitation and enhancements of: (a) wetlands, (b) marine and terrestrial wildlife habitat, and (c) vegetated areas necessary to maintain site stability and groundwater recharge, considering climate change impacts on precipitation patterns and water availability.

New policy: Consider climate impacts and opportunities to reduce climate vulnerability during restoration activities. Examples include opportunities to reduce runoff, mitigate flooding, and retain fresh water resources, and opportunities to use natural shading to conserve moisture in dry sites.

Agricultural Resource Lands

Edits to previous Goal: To ensure the conservation of agricultural resource lands of long-term commercial significance for existing and future generations, and protect these lands from climate change impacts and from interference by adjacent uses which may affect the continued use of these lands for production of food and agricultural products.

Forest Resource Lands

Edits to previous Goal: To protect and conserve forest lands of long-term commercial significance for sustainable forest productivity and provide for uses which are compatible with forestry activities while maintaining water quality, water quantity, and fish and wildlife habitat; sequestering carbon; and increasing the climate resilience of the forest lands and their resources.

Water

Suggested Comp Plan language

General Goals and Policies

Edits to previous Goal 1: In consideration of Best Available Science, including the most recent climate change projections, protect & manage the quality and quantity of ground and surface water so as to preserve hydrologic systems, designated beneficial uses, and fish and wildlife habitat that rely on fresh water.

Edits to previous Goal 3: Establish coordinated, cost effective programs for monitoring water quality, water quantity and associated habitats and species so that changes can be identified and protection programs modified as necessary, including in the context of climate change impacts.

Edits to general policy 18: In decision making, utilize locally adopted policies and water resource analysis meeting the Best Available Science Standard and including the latest climate change projections from sources like the University of Washington Climate Impacts Group and NOAA.

New general policy: Ensure that all plans consider climate change projections and anticipated impacts such as saltwater intrusion and precipitation change, and incorporate adaptation measures to increase climate resilience and ensure adequate fresh, clean water in the long term. Include climate change information and adaptation measures in all technical assistance programs.

Water Supply Development Policies

Edits to policy 2: Work cooperatively with State agencies to base future water allocations on capacity by watershed, recognizing the following:
• Agricultural resource lands,
• Streams, wetlands, and nearshore habitat,
• Urban growth areas.
• Domestic supply
• Projected changes in climate

4.1.A. Existing Information

Mention sea level rise studies done in San Juan County in recent years.

Stormwater Goals and Policies

Edits to intro language: Soil compaction, altering drainage patterns, and replacing forest with pasture, lawn, driveways, and structures results in less infiltration, more surface runoff, and if not controlled, the discharge of warm, polluted water. Climate change is also increasing the

frequency of high-intensity rain events and therefore increasing runoff. As the amount of runoff increases, less water is available for beneficial uses including drinking water.

New policy 4f: 4. Ensure that clearing, grading and stormwater management regulations and enforcement programs:
f. Take into account projected changes in climate and resulting impacts on stormwater and runoff.

Note: There's a 2009 UW report on climate change impacts on stormwater: http://cses.washington.edu/db/pdf/wacciach9storminfra652.pdf

4.2.D. Fish, Wildlife and Native Habitat

Edits to intro language: The complex geology of the San Juans supports a diverse land cover that, in conjunction with our streams, wetlands and nearshore areas, supports a wide array of plants and animals. Our habitats are small, disconnected, and often rocky, and for many of them protection is either recommended or is required by State or Federal law. Climate change presents additional risks to island habitats and plant and animal species, which only further increases the importance of protection.

4.2.F.Data Collection Goal & Policies

Edits to policy 6: Monitor indicator habitats and organisms associated with fresh water to identify problem areas, establish trends over time, and evaluate the effectiveness of management strategies, including in light of climate change.

Vision/General

Add something like the example from the Bainbridge Island plan: Minimize or ameliorate the impacts of climate change on our community and our Island's ecosystems through climate-informed policies, programs and development regulations.

Examples

It might be worth including a link to the **Bainbridge Island Comp Plan** (along with Martha's Vineyard and others that are already included).

http://www.bainbridgewa.gov/615/Navigate-Bainbridge-Comprehensive-Plan-U

Climate change references in the Bainbridge Island Comp Plan (adopted Feb. 2017) include:

Introduction

- Guiding Principle #7 Reduce greenhouse gas emissions and increase the Island's climate resilience.
    - Guiding Policy 7.1 Mitigation: Participate with state, regional and local partners to reduce greenhouse gas emissions consistent with the 1990 benchmark and future year targets set forth in state law, educate the public about climate change and incentivize Island activities including land use patterns and building practices that reduce greenhouse gas emissions.
    - Guiding Policy 7.2 Adaptation: Minimize or ameliorate the impacts of climate change on our community and our Island's ecosystems through climate-informed policies, programs and development regulations.
    - Guiding Policy 7.3 Evaluate the climate vulnerabilities and implications of City actions and identify policies that alleviate those vulnerabilities. Consider the effects of shifting conditions (sea level rise, changing rainfall patterns, increasing temperatures and more extreme weather events) and the effects they cause (altered vegetation, changing water demands, economic shifts).

Land Use

- "The GMA requires plans to be based on a twenty-year horizon, but this plan uses a fifty-year/one hundred-year horizon to better account for the implications of climate change and the much longer-term cycles of natural systems and public infrastructure investments."
- Policy LU 2.5 Prepare a Bainbridge Island Climate Change Strategy and Water Conservation Plan.

Water resources

- Policy WR 3.11 Consider the impacts of climate change and ocean acidification when developing regulations or approving capital projects related to aquatic resources including marine nearshore, wetlands, streams, lakes, creeks, associated vegetated areas and frequently flooded areas.

Transportation

- "Transportation is both a cause of climate change and provides opportunities to mitigate the effects of climate change. Creating a transit plan that reduces emission of greenhouse gases and increases our community's resilience to the effects of climate change is a priority. These criteria should be used to evaluate all transportation solutions and proposed projects."
- Policy TR 3.4 Support WSF and other providers to create and incorporate best practices into ferry services that reduce greenhouse gas emissions and vulnerability of ferry transit from climate change.

Economic element

- Policy EC 6.3 Develop urban design strategies to ensure that the built environment is appropriate for present and future conditions, including the impacts of climate change.
- Policy EC 7.8 Support and make Bainbridge Island a model community for climate change preparedness and sustainability practices that ensure long-term business viability while attracting and protecting visitors, businesses and residents.

Utilities

- GOAL U-4 Ensure that the provision of utility services is environmentally responsible and sustainable, and encourage utility services that are carbon neutral and do not contribute to climate change.

Environmental element

- "As our Island grows and develops continued protection of varied open space areas and environmentally sensitive landscape is necessary to maintain the quality of life that is currently enjoyed on Bainbridge Island. Additionally, the unpredictable cumulative impacts of climate change in our region justify appeals to the precautionary principle. Climate change may require that the areas we protect and approaches we use to achieve our goals and policies will change."
- Policy EN 1.8 Consider the potential impacts of climate change and its impacts in all decisions related to natural systems and environmental quality.
- GOAL EN-7 Anticipate and prepare for the consequences of sea level rise.
    - Policy EN 7.1 Consider the implications of sea level rise in all relevant decision-making by using regional sea level rise projections and shoreline instability maps (as provided by the WA Department of Ecology and utilized and interpreted with the Bainbridge Island Climate Impact Assessment).
- GOAL EN-12 Reduce greenhouse gas emissions through compliance with federal, state and regional policies while developing local strategies to reduce emissions further.
    - Policy EN 12.1 Support and implement climate pledges and commitments undertaken by the City and other multi-jurisdictional efforts to reduce greenhouse gas emissions, address climate change, sealevel rise, ocean acidification and other impacts of changing global conditions.
    - Policy EN 12.2 Facilitate the improvement and convenience of low carbon mass transit and increased carsharing, cycling, walking and the development of

alternative vehicle infrastructure (e.g., charging stations) to reduce greenhouse gas emissions.

- Policy EN 12.3 Strive for reduced greenhouse gas emissions by, among other actions, integrating climate change into the city planning process, including land use and transportation planning and management, and making climate change considerations and meeting greenhouse gas emission reduction goals a component of city decision making.
- Policy EN 12.4 Establish benchmarks, metrics and targets for reduction of greenhouse gas emissions, assess current conditions and progress in reducing greenhouse gas emissions from municipal, commercial, residential and transportation-related land uses, projects and programs.
- Policy EN 12.5 Support the development of a public education program which informs all citizens on the methods and progress for meeting the Island's greenhouse gas emission goals and ways citizens can assist in reaching the reduction goals.
- Policy EN 12.6 Promote energy conservation measures by all government entities including: Retrofitting offices, shops and garages with high-efficiency lighting; Converting vehicles to hybrid fuel vehicles as replacement or new vehicles are acquired; Converting traffic signals and lighting to the most energy efficient and spectrum appropriate technology available; and Adopting incentive programs and design standards that encourage the employment of renewable energy sources and energy efficient appliances on the Island.
- Policy EN 12.7 Promote the installation of residential solar panels and the adoption of other energy saving technologies such as LED lights, heat pumps and insulation.

From Islands Climate Resilience Steering Committee

Date (aiming to submit by the beginning of October)

San Juan County Council
350 Court Street, No. 1
Friday Harbor, WA 98250

Council Members:

Islands Climate Resilience, formed in 2014, is a grassroots group of islanders who encourage preparedness for climate related impacts in the San Juan Islands. The current update to the San Juan County Comprehensive Plan provides an important opportunity to proactively build the resilience of our community, economy, and ecosystems to climate change impacts. It also provides a critical opportunity to put ourselves on a low-emissions pathway, making sure that our development and way of life helps to mitigate global climate change.

We therefore ask that this update incorporate climate change policies and goals in each element of the Comprehensive Plan. This letter contains additional information and provides some specific suggestions.

What changes in climate do we need to prepare for?

Climate projections from the University of Washington and other scientific groups indicate that we can expect a number of concerning changes: [1]

- Changing precipitation patterns that will bring drier summers as well as more frequent heavy rainfall events in the wintertime. We already experience limited water supply in the summer months, and less rainfall will increase the probability of drought conditions and water shortages. More frequent heavy rainfall events in the winter has the potential to cause stormwater inundation, flooding, erosion, and landslides.
- More extremes in temperature—particularly prolonged heat waves in the summertime—will increase energy demand for cooling. It will also increase demand for water for landscaping and agriculture, even as supply is dropping. Higher summer temperatures compounded by less precipitation increases wildfire risk, which affects air quality, impacting human health. We saw a number of smoky days this year and can expect that to happen more often in the future.
- Sea level rise will affect shoreline stability and coastal zone resources. This will be compounded when storms hit, with resulting damage in shoreline areas from storm surge. Sea level rise in Friday Harbor could be at least 5 inches by 2050 and 1.5 feet by 2100.[2]
- Ocean acidification (the decreasing pH of marine waters) will harm local shellfish and related recreational and commercial fisheries.
- The aforementioned changes also affect our flora and fauna. Species distributions will change, endangered species may be even more at risk, invasive species may find increasingly favorable conditions, and insect disturbances affecting the health of our forests may increase.

How can we integrate these issues into the Comprehensive Plan update?

We need to utilize the best available science in our decision-making to ensure that we develop in a way that makes our community, economy, and ecosystems resilient to climate change impacts.

We summarize here the relevance of climate change to each of the Comprehensive Plan elements, and how the Plan could address those projected impacts. Specific suggested language for each element is provided in Attachment 1.

Vision

We have an opportunity to put forward a vision of a sustainable, low-emissions county that is resilient to climate change impacts and other stressors—not only during the period covered by the new Comprehensive Plan, but for generations to come.

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[1] Mauger, G.S., J.H. Casola, H.A. Morgan, R.L. Strauch, B. Jones, B. Curry, T.M. Busch Isaksen, L. Whitely Binder, M.B. Krosby, and A.K. Snover, 2015. State of Knowledge: Climate Change in Puget Sound. Climate Impacts Group, University of Washington, Seattle.

[2] Calculated from Tables 5.3 and A.2 in National Academy of Sciences (2012) Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future, using 75% of the rise projected for Seattle (based on the comparative trends for Friday Harbor and Seattle with barometric pressure and vertical land motion adjustments incorporated).

Land Use

It will be important to make sure that we avoid future development in places that are very likely to be at risk of coastal flooding as the sea level rises, and places that will have inadequate water.

We need to protect places that will remain and provide critical habitat for shorebirds and other animals as sea level rise and other changes decrease their options.

Housing

We can improve the affordability of housing and achieve climate co-benefits by investing in energy efficiency and conservation, which will by reduce energy costs for residents.

All SJC UGAs are located on the shoreline, and could be at risk from climate change impacts. We need to make sure that our affordable housing units remain permanently affordable, and are not subject to damage from extreme weather events or climate change impacts.

Transportation

Overall transportation goals and policies should further the reduction of GHG emissions, including by cutting down on vehicle miles traveled. This should include prioritizing investment in low-carbon transit, providing incentives for adoption of electric vehicles and other low and/or no GHG-emitting transport or ride sharing options, and promoting non-motorized transportation by making roads safer and creating trails for bikes and pedestrians. The previous Transportation Element laid out goals and policies related to non-motorized transportation that should be brought forward and expanded in this Update.

We also need to ensure that existing and new roads, trails, and other transportation infrastructure are sited appropriately and protected from sea level rise and the impacts of extreme weather events.

We should also work with Washington State to ensure that ferry docks and services are resilient to climate change impacts, and that we maximize opportunities to reduce emissions and waste from ferry service.

Capital Facilities

To protect our investments and people's safety, capital facilities need to be sited in places that are not at risk from potential sea level rise or extreme weather conditions. Energy systems associated with new and existing capital facilities should be low-emissions and energy-efficient to mitigate climate change and save money in the long run.

Utilities

We support OPALCO's inputs to this update process and applaud their efforts to help the county be a leader in reducing greenhouse gas emissions and dramatically increasing the use of renewable energy.

Water

Given the critical role that water plays in our health, our lifestyle, our economy, and our environment, effective water resource planning and management are vital to our future. These planning and management efforts will need to consider projected climate change impacts like saltwater intrusion and increased drought, in addition to other stresses. Continued development, for example, means that increases in impervious surfaces also have the potential to generate more runoff and reduce groundwater recharge.

Natural Resource Land

We need to make sure that our forests remain healthy, contribute to increased carbon sequestration, and provide good habitat for wildlife. As temperatures rise, shade will be increasingly important for animal and human well-being. And as heavy rainfall events become more frequent, the groundwater retention and site stability benefits provided by trees will be critical.

We also want to ensure that island agriculture remains viable, even as temperatures rise, summers become drier, and new pests emerge.

Thank you for your consideration. Our group will be providing more inputs during the update process, and we are available to respond to questions to help the Council think through these issues.

Sincerely,

Islands Climate Resilience Steering Committee

Lovel Pratt – Mulno Cove Consulting
Linda Lyshall – SJI Conservation District
Katie Fleming – Friends of the San Juans
Jane Wentworth – WA Native Plant Society, SJ Islands
Sarah Severn – Washington Business for Climate Action
Kari Koski – Educator, elixirist, and conservationist-at-large
Gretchen Allison – Chef, artist, and climate-activist-at-large
Senior Project Advisor: Nora Ferm Nickum
Special Advisor and Fiscal Agent: Ron Zee, Madrona Institute

Attachments:

1. Specific recommendations for language in the San Juan County Comprehensive Plan.
2. Climate change references in the Bainbridge Island Comprehensive Plan. The Bainbridge Island Comprehensive Plan was adopted in February 2017.
3. Water Resilience chapter of a ICR-led Community Climate Resilience Plan.

Attachment 1. Recommendations for climate change language in the San Juan County Comprehensive Plan.

Suggested additions to the previous Comp Plan language are indicated by orange underlined text.

Vision

We'd like to see the following language included in the Vision Statement:

- Our community, economy, and ecosystems thrive and are resilient in the face of a changing climate and a range of other stressors.
- We work determinedly towards a carbon-neutral future.
- Our policies, programs, and development regulations are informed by the best available science.

Land Use

General policies:

New policy: Increase resilience by avoiding development in sites that are projected to be at risk from climate change impacts like sea level rise, coastal flooding, and inadequate water supplies.

2.2.F Natural Resource Conservation (or could go under Fish, Wildlife, and Native Habitat in the Water chapter)

New policy: Increase protections of rocks and islets that will remain above projected sea level rise for shore bird nesting, roosting, and rearing.

2.2.C Energy

Edits to previous policy: Provide opportunities within land use designations for the development and use of alternative energy resources which are compatible with the natural environment and will contribute to a reduction in greenhouse gas emissions.

Recreation (or might go under **Capital Facilities**)

New policy: Plan for impacts of sea level rise—and accompanying erosion—when undertaking new construction or conducting repairs and maintenance of roads, docks, trails, and campsites near the shoreline.

Housing

General Housing

Edits to previous policy 5: Provide the most up to date information on critical environmental areas and natural resource lands, and incorporate the best available science on climate change projections, to identify potential land development constraints.

Edits to previous policy 6: Identify and address potential mitigation for critical area impacts and climate change risks as early in the permitting process as possible.

Affordable Housing

New policy: Ensure that any UGA expansions include a permanent affordability requirement for at least 50% of the units created.

New policy: In funding affordable housing, include funding to improve the affordability of both new and existing housing through investments in energy conservation and/or efficiency, and renewable energy generation.

New policy: Explicitly consider climate change risks in siting new affordable housing units and avoid sites projected to have increased risk of flooding, landslides, severe erosion, or water shortages.

Transportation

6.4.B Policies related to the Washington State Ferry System

New policy: Encourage the WSF to create and incorporate best practices into ferry services that reduce greenhouse gas emissions, increase recycling and composting rates, and increase the climate resilience of ferry transit to increase the reliability of service in the long term.

6.4.C Policies for County Docks, Barge Landing Sites, Ramps and Associated Parking Areas

New policy: Plan for impacts of sea level rise—and accompanying erosion—when undertaking new construction or conducting repairs and maintenance of docks and associated parking areas.

6.5 Land Transportation Goals and Policies

Edits to Goal 6: To increase education and outreach to improve bicycle and pedestrian safety and healthy lifestyles, and facilitate alternatives to the single-occupant vehicle which conserve energy, reduce greenhouse gas emissions, and reduce reliance on fossil fuels.

Edits to Goal 7: To encourage transit providers to provide and expand low-emissions transportation services that support the needs of local residents and visitors.

6.5.A Policies for Road Classification, Right-of-Way, Design and Construction

New policy under Road Design and Construction: Ensure that County road standards and practices are updated to reflect climate change projections, and that new roads are sited appropriately and protected from sea level rise, increased erosion, storm surge, and other impacts of climate variability and change.

6.5.F Policies for Bicycles and Mopeds

Edits to intro language: Bicycling and mopeds are important modes of transportation used by residents and visitors to the islands. Bicycling in particular is a zero-emission alternative that can help further the County's climate change mitigation efforts and that can be more affordable than vehicular travel. Increases in the numbers of bicycling enthusiasts and recreational tour groups, as well as the use of mopeds, requires planning for the development of transportation facilities and operations that promote safe travelling experiences for all users and benefit the local economy.

6.5 G Policies for Trails

Edits to Policy 1: Support the development of an interconnected system of trails for walking, hiking, bicycling and horseback riding that is consistent with rural, island living, provides for safe and reliable zero-carbon transportation alternatives, promotes healthy lifestyles, and creates amenities that attract tourists and add vitality to the economy.

6.5.H Transit Goals and Policies

New goal: To ensure reliable service even in the context of extreme weather events.

New policy: Identify road sections or transit infrastructure assets that may be at risk of flooding, erosion, or other temporary or prolonged damage, incorporating climate change projections into the analysis, and collaborate with transportation partners to identify alternate routes and develop an emergency response plan.

Capital Facilities

General policies

New policy: Site all new capital facilities in places that are not at risk from potential sea level rise or extreme weather conditions. Use the latest science to identify potential sea level rise, flood zones, and other characteristics when identifying locations for capital facilities infrastructure.

New policy: Install low-emissions and energy-efficient energy systems in any new capital facilities.

7.3.B Community Water Systems That Serve UGAs, AMIRDs, and MPR Activity Centers

Edits to policy 5 (excerpt): Each plan should include an analysis of the community water system's ability to serve existing and potential land use development and population growth, taking into consideration how climate change is projected to affect water availability.

Utilities

We know that OPALCO is proactively working to increase the use of renewable energy and the implementation of energy efficiency initiatives in the islands, and we support their suggested language for the Comprehensive Plan to clearly establish these efforts—and climate change mitigation—as County priorities.

Water

General Goals and Policies

Edits to previous Goal 1: In consideration of Best Available Science, including the most recent climate change projections, protect & manage the quality and quantity of ground and surface

water so as to preserve hydrologic systems, designated beneficial uses, and fish and wildlife habitat that rely on fresh water.

Edits to previous Goal 3: Establish coordinated, cost effective programs for monitoring water quality, water quantity and associated habitats and species so that changes can be identified and protection programs modified as necessary, including in the context of climate change impacts.

Edits to general policy 18: In decision making, utilize locally adopted policies and water resource analysis meeting the Best Available Science Standard and including the latest climate change projections from sources like the University of Washington Climate Impacts Group and NOAA.

New general policy: Ensure that all plans consider climate change projections and anticipated impacts such as saltwater intrusion and precipitation change, and incorporate adaptation measures to increase climate resilience and ensure adequate fresh, clean water in the long term. Include climate change information and adaptation measures in all technical assistance programs.

Water Supply Development Policies

Edits to policy 2: Work cooperatively with State agencies to base future water allocations on capacity by watershed, recognizing the following:
• Agricultural resource lands,
• Streams, wetlands, and nearshore habitat,
• Urban growth areas.
• Domestic supply
• Projected changes in climate

4.1.A. Existing Information

Mention sea level rise studies done in San Juan County in recent years, such as this one: http://www.sanjuans.org/documents/MacLennanetal_2014_SJC_Sea_Level_Rise_Vulnerability_final.pdf

Stormwater Goals and Policies

Edits to intro language: Soil compaction, altering drainage patterns, and replacing forest with pasture, lawn, driveways, and structures results in less infiltration, more surface runoff, and if not controlled, the discharge of warm, polluted water. Climate change is also increasing the frequency of high-intensity rain events and therefore increasing runoff. As the amount of runoff increases, less water is available for beneficial uses including drinking water.

New policy 4f: 4. Ensure that clearing, grading and stormwater management regulations and enforcement programs:
f. Take into account projected changes in climate and resulting impacts on stormwater and runoff.

4.2.D. Fish, Wildlife and Native Habitat

Edits to intro language: The complex geology of the San Juans supports a diverse land cover that, in conjunction with our streams, wetlands and nearshore areas, supports a wide array of plants and animals. Our habitats are small, disconnected, and often rocky, and for many of them protection is either recommended or is required by State or Federal law. Climate change presents additional risks to island habitats and plant and animal species, including longer dry seasons, changes in pest and disease type and prevalence, and inundation of nearshore areas; this further increases the importance of protection.

4.2.F.Data Collection Goal & Policies

Edits to policy 6: Monitor indicator habitats and organisms associated with fresh water to identify problem areas, establish trends over time, and evaluate the effectiveness of management strategies, including in light of climate change.

Natural Resource Land

2.2.F Natural Resource Conservation (previously in Land Use element)

Edits to previous policy 3: Encourage sustainable forest management in order to conserve forest lands, sequester carbon, and promote the retention and preservation of forest stands that are particularly important to visual aesthetics, wildlife habitat, groundwater retention and/or site stability.

Edits to previous policy 4: Protect and preserve, wetlands, critical marine and terrestrial wildlife habitats and wildlife corridors, including breeding grounds, resting and feeding areas for migratory birds, nursery areas and habitats of threatened, endangered and sensitive species. Include areas and habitats that can provide refuge for species that are vulnerable to climate change impacts like rising temperatures, and allow for migration of critical marine habitats as sea levels rise.

Edits to previous policy 5. Encourage the reclamation, rehabilitation and enhancements of: (a) wetlands, (b) marine and terrestrial wildlife habitat, and (c) vegetated areas necessary to maintain site stability and groundwater recharge, considering climate change impacts on precipitation patterns and water availability.

New policy: Consider climate impacts and opportunities to reduce climate vulnerability during restoration activities. Examples include opportunities to reduce runoff, mitigate flooding, and retain fresh water resources, and opportunities to use natural shading to conserve moisture in dry sites.

Agricultural Resource Lands

Edits to previous Goal: To ensure the conservation of agricultural resource lands of long-term commercial significance for existing and future generations, and protect these lands from climate change impacts and from interference by adjacent uses which may affect the continued use of these lands for production of food and agricultural products.

Forest Resource Lands

Edits to previous Goal: To protect and conserve forest lands of long-term commercial significance for sustainable forest productivity and provide for uses which are compatible with forestry activities while maintaining water quality, water quantity, and fish and wildlife habitat; sequestering carbon; and increasing the climate resilience of the forest lands and their resources.

Attachment 3. ICR Water Resilience chapter of a forthcoming Community Climate Resilience Plan.

This chapter was developed in 2016-2017 by a group of resident experts in a volunteer capacity.