Comprehensive Plan Text/SJC Code* Amendment Request

*San Juan County Code Titles 15, 16 & 18
(Annual Docket)

APPLICANT INFORMATION:			
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This request is for a text amendment to the Comprehensive Plan or development regulations, not a comprehensive plan map amendment. I understand that this request will be reviewed according to the County's annual docket

DocuSigned by: Foster Hildreth 6B1FF8BE452A4CC...	**Foster Hildreth**	**2/28/2021**
Signature	*Printed Name*	*Date*
DocuSigned by: FDB971911E48451...	**Russell Guerry**	**2/28/2021**
Signature	*Printed Name*	*Date*

Please Describe the Proposed Amendments (attach additional pages if you need more space):

1. **Comprehensive Plan amendments (if applicable). Describe proposed amendment and/or attach proposed text changes. List Comprehensive plan section, page numbers, title and policies proposed for amendment.**

N/A

2. **San Juan County Code Title 15, Title 16 or Title 18 amendments (if applicable). Describe proposed amendment and/or attach proposed text changes. List code sections proposed for amendment.**

This proposal adds a new **Land Use** to the **Agricultural and Forestry Uses** section of **Table 18.30.040** land use table – rural, resource, and special land use designations. The proposed new land use would be called "**Agri-solar generation**" and designed to foster increased local renewable energy and diversify farm income to improve the stressed economics of local food production. Healthier farming economics will support increased local food production and a thriving farm community.

This proposal allows use permitting for agri-solar generation in all rural areas (RGU, RR, RFF, RI, RC) and AG Resource Lands, and conditional use in Forest Resource Lands (FOR). Special Lands (C, N) would be prohibited. This is summarized in the table below.

Table 18.30.040

Land Uses	**Classification of Uses by Land Use Designation**								
	Rural Designations					**Resource Lands**		**Special Lands**	
	RGU	**RR**	**RFF**	**RI**	**RC**	**AG**	**FOR**	**C**	**N**
Agricultural and Forestry Uses									
Agri-solar generation	P	P	P	P	P	P	C	N	N

A definition for "Agri-solar generation" in UDC section 18.20.010 should also be adopted as follows:

> "Agri-solar generation" means equipment or machinery that produces fossil-free electricity from solar renewable energy sources co-located with Rural Designation and Resource Lands used for agriculture, and can include energy storage.

3. Why is the amendment being proposed?

Climate change is accelerating globally. Washington state's 2021 Energy Strategy, Climate Commitment Act, and Clean Energy Transformation Act set a very high bar to reduce carbon emissions by 50% by 2030 and net-zero by 2050. The entire region is racing against the clock to decommission fossil-fueled power generation and replace it with clean renewables. The County's recent Greenhouse Gas (GHG) Inventory Identified fossil-fueled transportation and heating contribute to 81% of County GHG emissions. The state and federal governments are providing a variety of grants and incentives to accelerate a rapid transition to electric heating and driving. These grants are substantial and require a timely response, necessitating permitting certainty wherever possible.

But Washington is reducing fossil generation faster than replacing it with renewables. OPALCO and northwest energy forecasters both expect an increased probability of major region power outages and blackouts. The more local generation we have in place, the better the County can ride through outages and avoid surges in mainland power market rates. Those rate surges fall especially hard on the vulnerable.

Agri-solar generation is being deployed in farmland across the world and is proving much more cost-effective and efficient compared to rooftop solar. In less than a year, the most recent planned Bailer Hill agri-solar project will more than double the local energy in the county, compared to all the rooftop solar in the county, which took 13 years to build. And at a small fraction of the price and time to build rooftop solar. Current permitting limitations put the grants for that project at risk. Those grants include important Washington Clean Energy Funds for helping low-income households with energy from the Bailer Hill agri-solar project.

The 2022 USDA Ag Census of San Juan County farmland economics shows that we have 264 farms, on 19,571 acres, averaging 74 acres per farm. Even with government subsidies, **each farm is losing an average of $3,754 dollars per year**. And the cost of farmland is rising rapidly as our population swells. The economics are not sustainable. If we want to increase local food production, we need healthy farm economics. Agri-solar has been shown to increase farmland productivity, and it provides dual use of the sun - producing food and producing energy. That energy produces an additional income for the farm of about $8,300 per acre per year, turning the typical farm here cashflow positive. **35% of county electricity use could be generated with just 540 acres of agri-solar – that's just 2.8% of all Ag land**.

Oregon State University College of Agricultural Sciences has been leading the way on Agri-solar. Here is what they and others have to say:

> "*A recent OSU study estimates that converting just 1% of American farmland to agrivoltaics could meet our national renewable energy targets and save water and create a sustainable long-term food system. It will also create new revenue opportunities for family farms which are currently facing increasing economic challenges, with a 23% increase in bankruptcy filings over the past year.*"
>
> "*Agrivoltaics provide a rare chance for true synergy: more food, more energy, lower water demand, lower carbon emissions, and more prosperous rural communities.*"
>
> "*Agrivoltaics aims to transform this competition into synergy: farming operations and solar development can coexist and reap benefits by sharing land. These arrangements are called agrivoltaic systems, and their widespread implementation can help popularize solar energy in agriculture-dependent communities hesitant to welcome solar development.*"

For further background on the important agri-solar work OSU, the National Renewable Energy Labs, and others are doing, we encourage the reader to watch this short informative video, *Harvesting the Sun*.

> *"Across the country, farmers, landowners, researchers, and solar companies are working together to harvest the sun twice: once with crops, honey, pollinators, and forage for grazing animals, and again with solar panels. This co-location of solar and agriculture is known as agri-solar or agri-voltaics. In Harvesting the Sun, the leading voices of the agri-voltaic movement come together to share their stories and shine a light on a climate solution that can increase farm profitability, save valuable water, improve the soil, provide shade for farm workers, develop valuable ecosystem services, and increase the resiliency of rural communities.*

Referring to the current **Land Uses, Agricultural and Forestry Uses** section below, the agricultural uses, especially when on AG land, are commonly Y, with a few provisional, conditional, or P/C. This helps strike a balance for critical energy systems the public depends on. The proposed **Agri-solar generation** Land Use is shown in BLUE. It will offer substantial public benefit, especially for farmers, and transform the County's local energy capabilities.

Land Uses	Classification of Uses by Land Use Designation								
	Rural Designations					Resource Lands		Special Lands[4]	
	RGU	RR	RFF	RI	RC	AG	FOR	C	N
Agricultural and Forestry Uses									
Agricultural activities	Y	Y	Y	Y	Y	Y	Y	Y	N
Agri-solar generation	P	P	P	P	P	P	C	N	N
Forest practices, no processing[8]	Y	Y	Y	Y	Y	Y	Y	Y	N
Lumber mills, portable	Y	Y	Y	Y	Y	Y	Y	P/C	N
Nurseries	Y	N	Y	Y	Y	Y	Y	N	N
Small-scale slaughterhouses	P	N	P	Y	Y	P	P	N	N
Unnamed agricultural and forestry uses	C	C	C	C	C	C	C	N	N

Accelerating major local renewable energy capacity ensures a cleaner, more sustainable energy future, reducing our use of fossil fuels and mitigating the devastating impacts of climate change.

4. How is the proposed amendment consistent with the Growth Management Act (RCW 36.70A), Comprehensive Plan and development regulations?

Growth Management Act: This proposal is consistent with the Planning Goals of the Growth Management Act, particularly for RCW §36.70A.020:

- Environment - reduce greenhouse gas emissions, improving air and water quality. Agri-solar can contribute to GHG emissions reduction and the preservation of Ag lands by improving the economics of the Ag businesses.
- Economic development - local energy generation replaces increasingly expensive mainland power. Agri-solar can help retain and expand Ag businesses by enhancing the revenue per acre, especially on land used for low-value products such as hay, silage, etc.
- Public facilities and services.
- Climate change and resiliency - support reductions in greenhouse gas emissions and per capita vehicle miles traveled; prepare for climate impact scenarios; foster resiliency to climate impacts and natural hazards; protect and enhance environmental, economic, and human health and safety; and advance environmental justice.

Comprehensive Plan: This proposal will facilitate increased local production of renewable energy while reducing GHG emissions and increasing local energy resilience, consistent with the Comprehensive Plan, including in particular the following sections:

- 2036 VISION - ENERGY AND RESOURCES: “Our community strives for energy independence and zero waste. We use renewable energy, materials, and natural resources on a sustainable basis.” “We invest resources to ensure that agricultural lands are preserved and to maintain and enhance agricultural viability.”
- 2.2C ENERGY
  - POLICY 2 Provide opportunities within land use designations for the development and use of alternative energy resources which are compatible with the natural environment.
- ELEMENT 8. UTILITIES

- 8.5.B Utility-Specific Goals and Policies, Electricity Goal 6: "Minimize the environmental impacts of electricity production and use while promoting energy independence."
- "The need for locally generated electricity from wind, solar, tidal, and other sources are vitally important to prevent economic disruption and preserve the County's environment. The County Vision states, "Our community strives for energy independence…we use renewable energy." **To achieve this vision will require significant land and water areas to host local renewable energy** and tidal power sites."
- "**To increase energy independence from the mainland will require predictable permitting processes**, to ensure timely achievement of grant funding and site development. This is particularly so for agri-solar applications on Rural Farm Forest and Ag land. Just as improved wireless land use designations fostered rapid improvement of wireless services in the county, updating land use designations for local renewable energy sites can help accelerate achieving the vision of "energy independence."

Unified Development Code: The proposal is to change the Code and is consistent with the overall policy goals of the Code in accordance with the Growth Management Act and Comprehensive Plan, as detailed above.

5. Does this proposal impact an Urban Growth Area (UGA)? Lopez Village, Eastsound and the Town of Friday Harbor are the only UGAs in the County.

NO

6. Does this proposal increase population or employment capacity?

NO