CLIMATE ACTION IN SAN JUAN COUNTY Jay Kimball

12 October 2023

San Juan County, in the heart of the Salish Sea, inspire the world



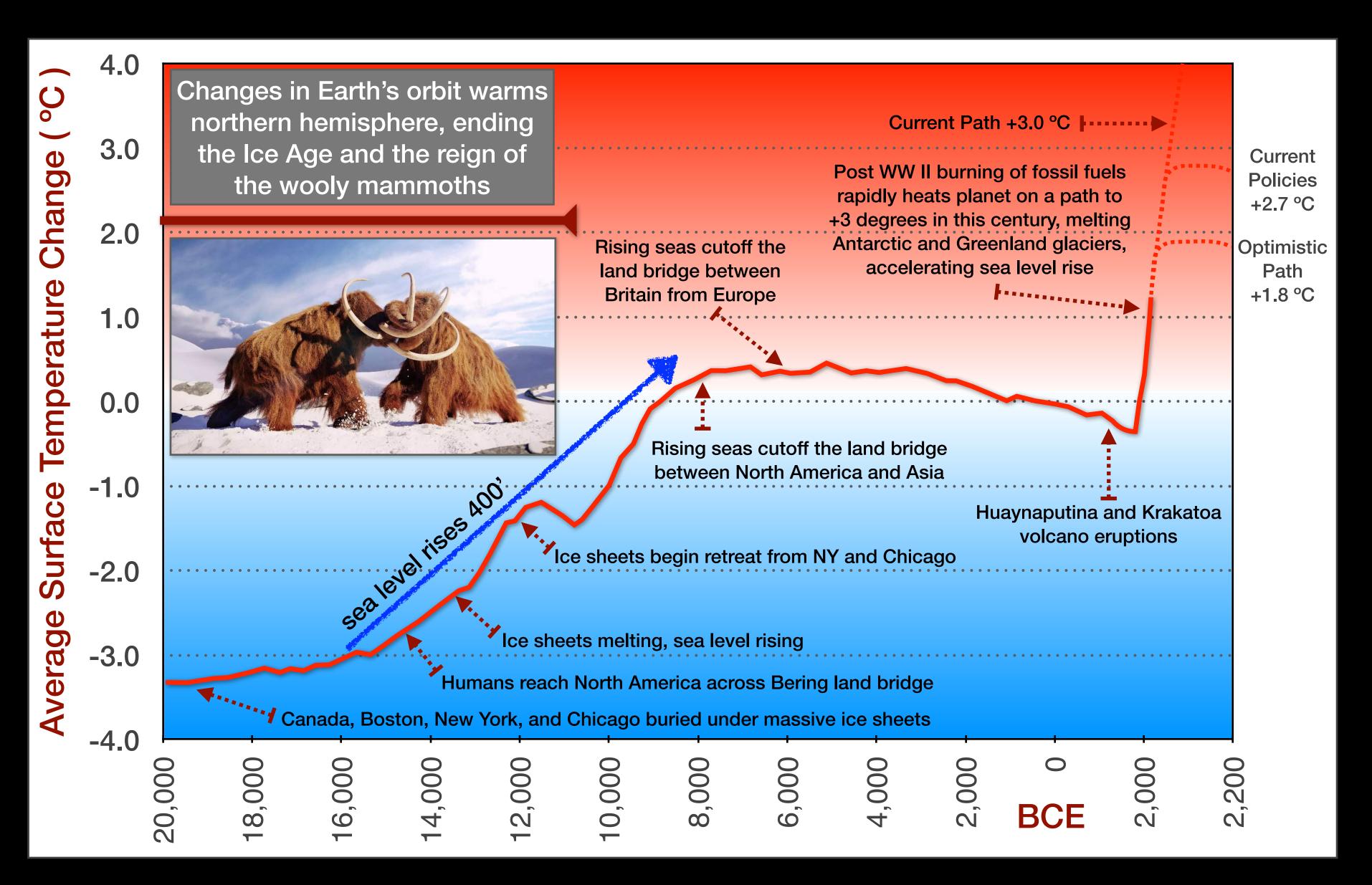
The Salish Sea is a microcosm for the planet, as the climate emergency accelerates.

Its pristine waters and precious marine ecosystem are in peril, as is our community.

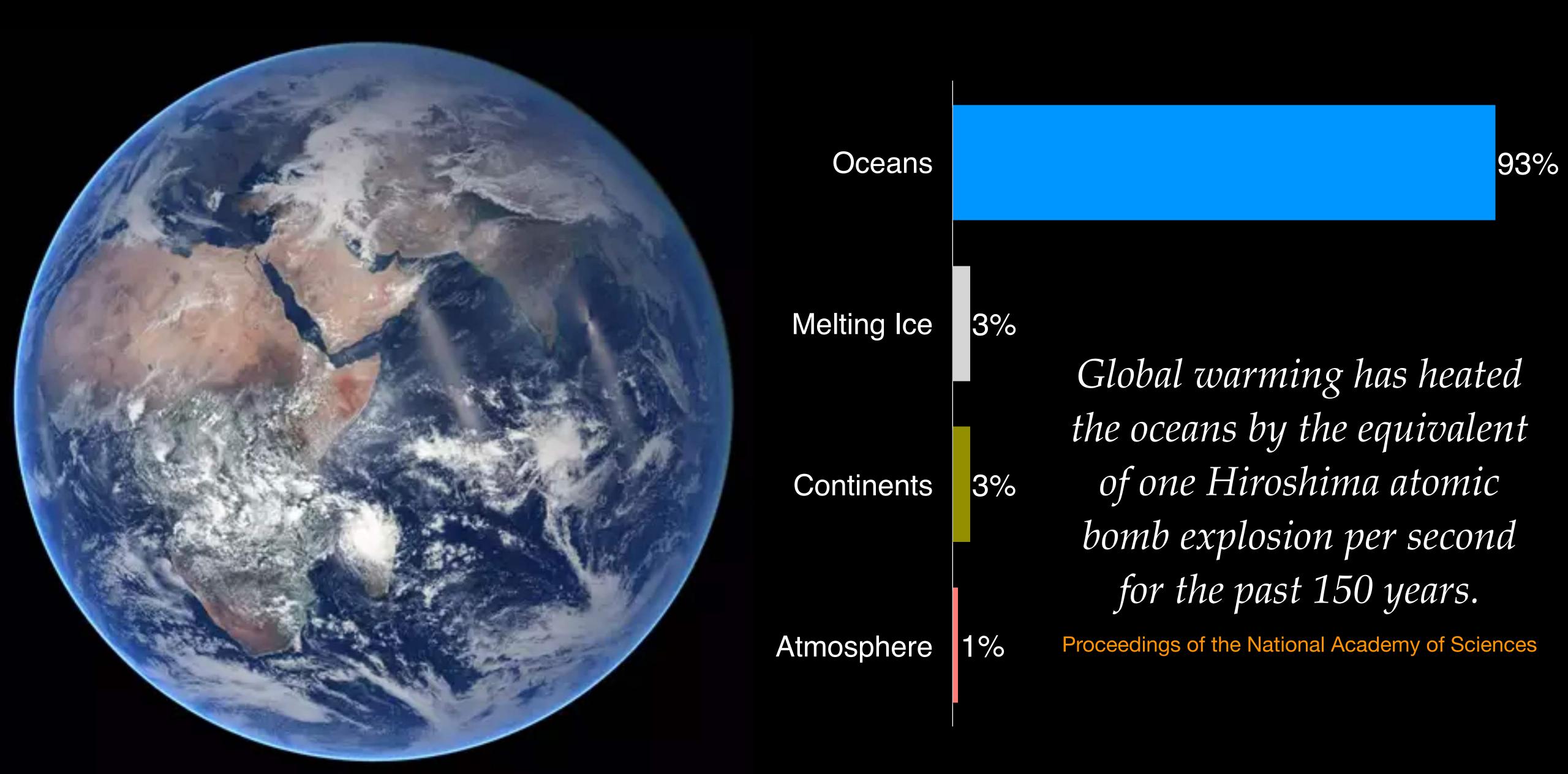
What we do here will inspire the world.

Climate Lens

6 Degrees of a Warming Earth

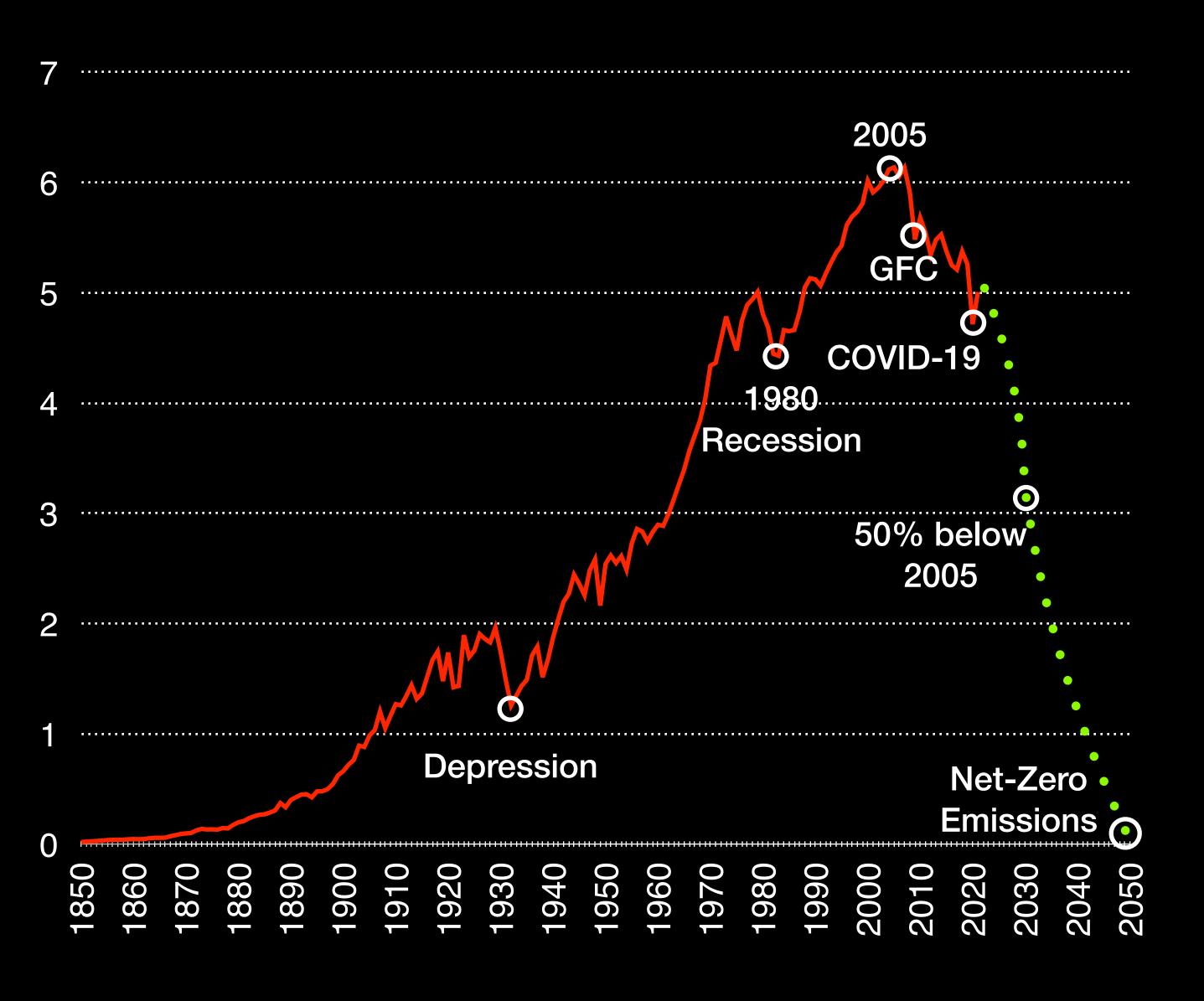


Where is the heat from global warming going?



Climate Action

US Annual CO₂ Emissions: 1850 - 2050 (billions of tons - Gt)



US Objectives

- reduce GHG emissions 50% below 2005 levels by 2030, Net-Zero by 2050
- invest in infrastructure, renewables + storage, resilience, electrify transportation (cars, trucks, ferries, planes)
- delivering 40% of the benefits to disadvantaged communities
- increase clean-tech jobs

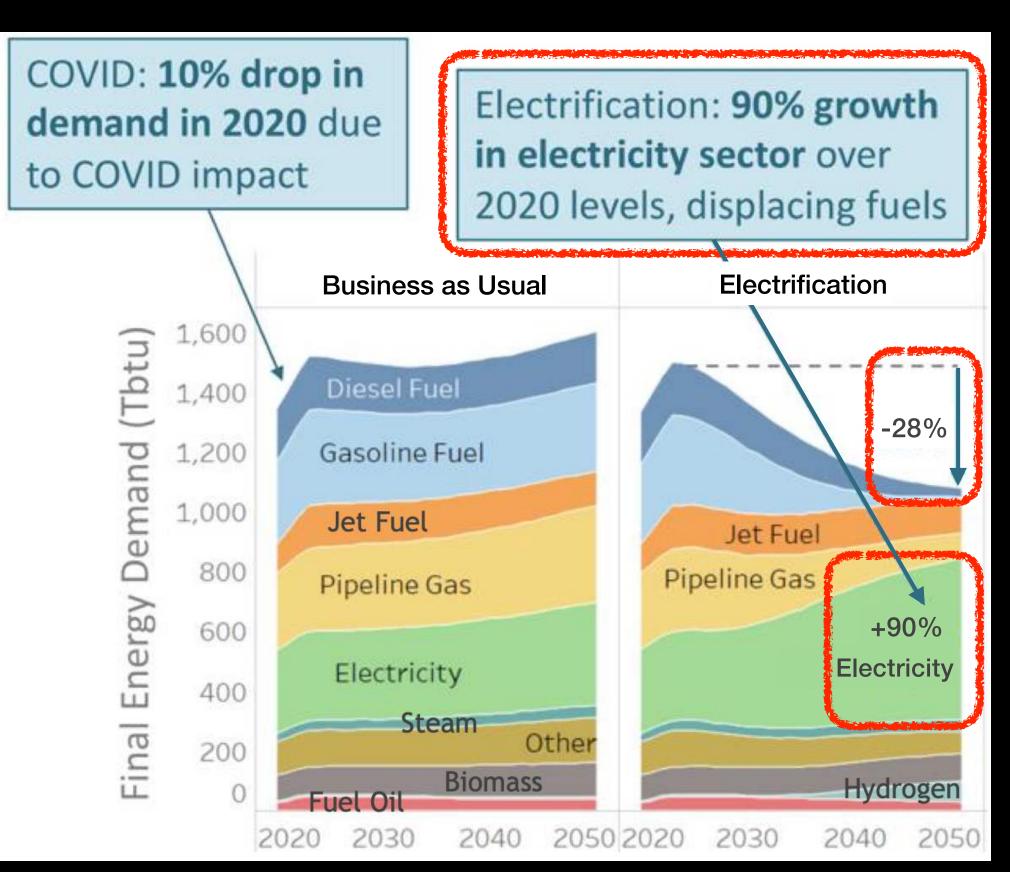
Washington Objectives

- mirrors Federal objectives
- substantial funds from federal investment will flow through state (e.g. WA departments of Commerce and Transportation)

source: EPA Page 7

WA 2021 Energy Strategy and Implications

Decarbonization will reduce **TOTAL** energy consumption by 28%, by nearly doubling demand for electricity



Energy Megatrends to Decarbonize Energy Supply

- Climate change -> Decarbonization -> Electrification (transportation and heating)
- Electric capacity decreasing dramatically e.g. coal plant shut down, hydro spill
- Solar and wind generation will be deployed to meet demand, but slowly
- California power play NW hydro needed to stabilize intermittent solar and wind If California was a country, it would be the fifth largest economy in the world!

Major Challenges Ahead

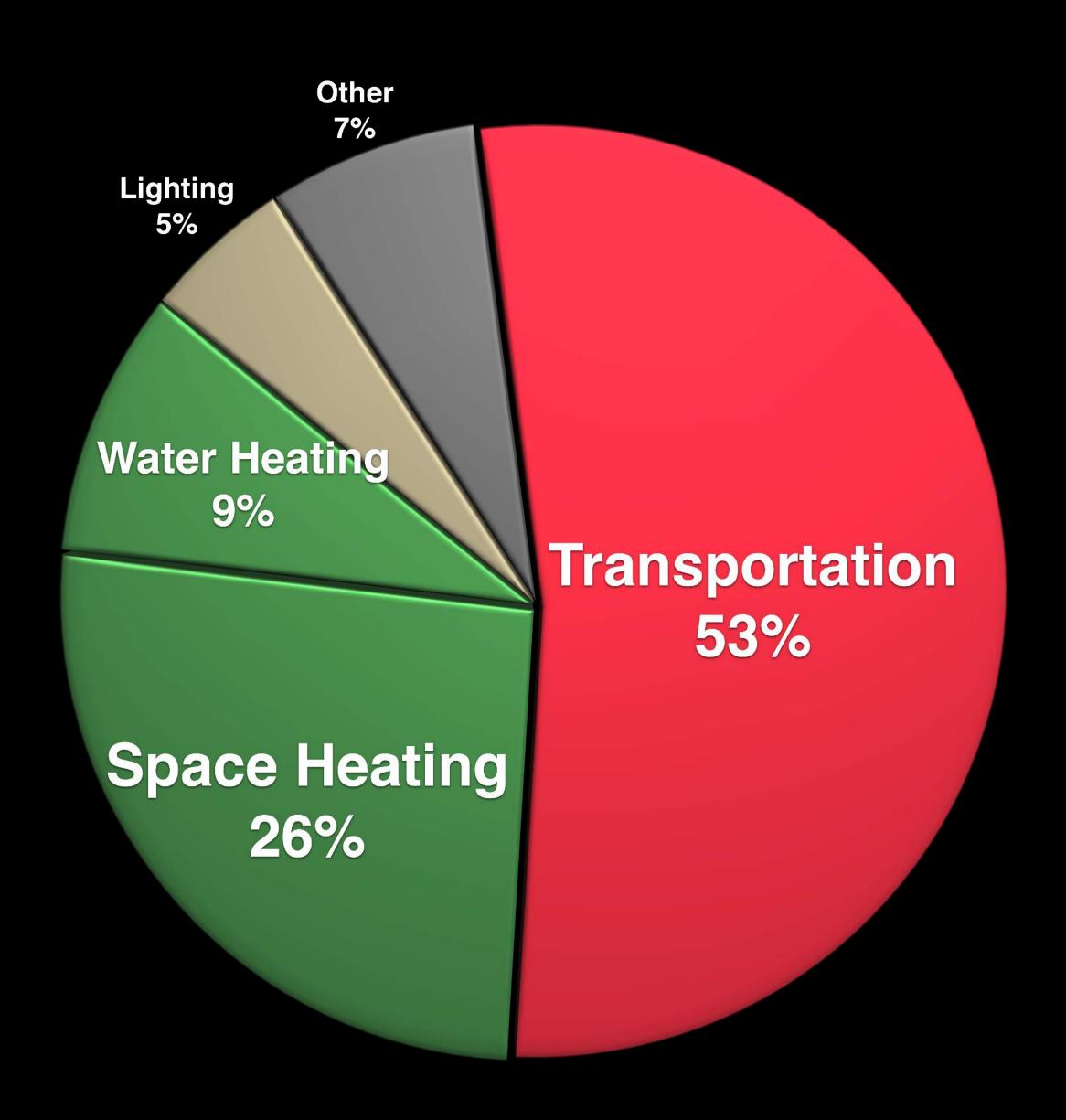
- Millions of acres of land will be required for solar, wind and transmission corridors
- Permitting/siting/acquiring new land resources will take years and capital NIMBY
- Federal and State financial assistance will be needed to meet capital requirements

County Climate Action Planning: An Example



San Juan County Topic Examples

- Educate & Communicate
- Reduce GHG Emissions
- Mitigate Fire Risk
- Adapt Fire, Water, Sea Level stressors
- Transform Transportation
- Curb Consumption
- Manage Population Growth
- Protect & Restore Nature
- Realign Food
- Retrofit Buildings
- Upgrade the Grid



In San Juan County, over

80% of energy use

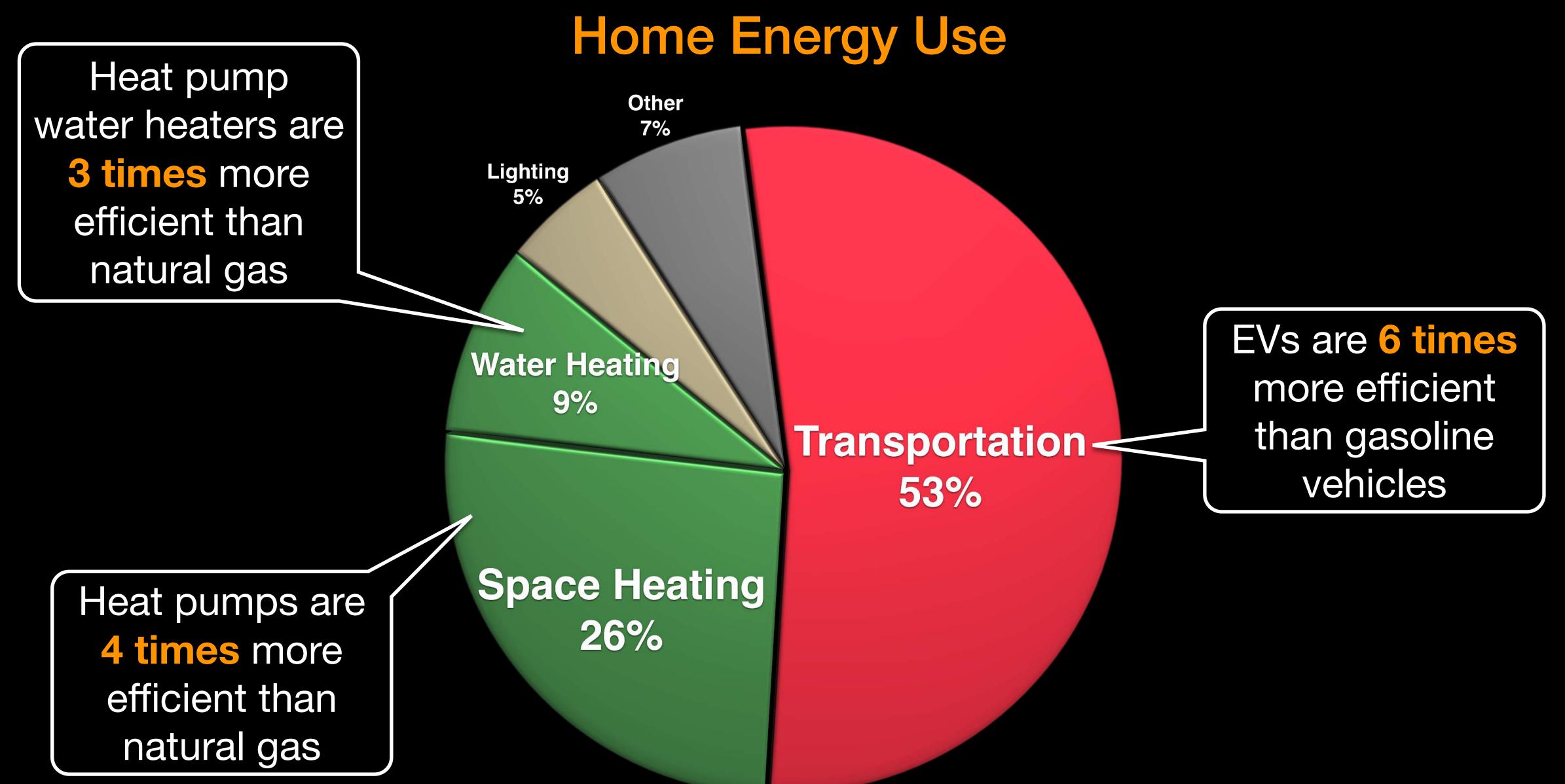
and

81% of CO2 emissions

come from

transportation and heating

The Next Wave of Efficiency: Electrification of heating and transportation



San Juan County Carbon Footprint: 218,655 Metric Tons per Year

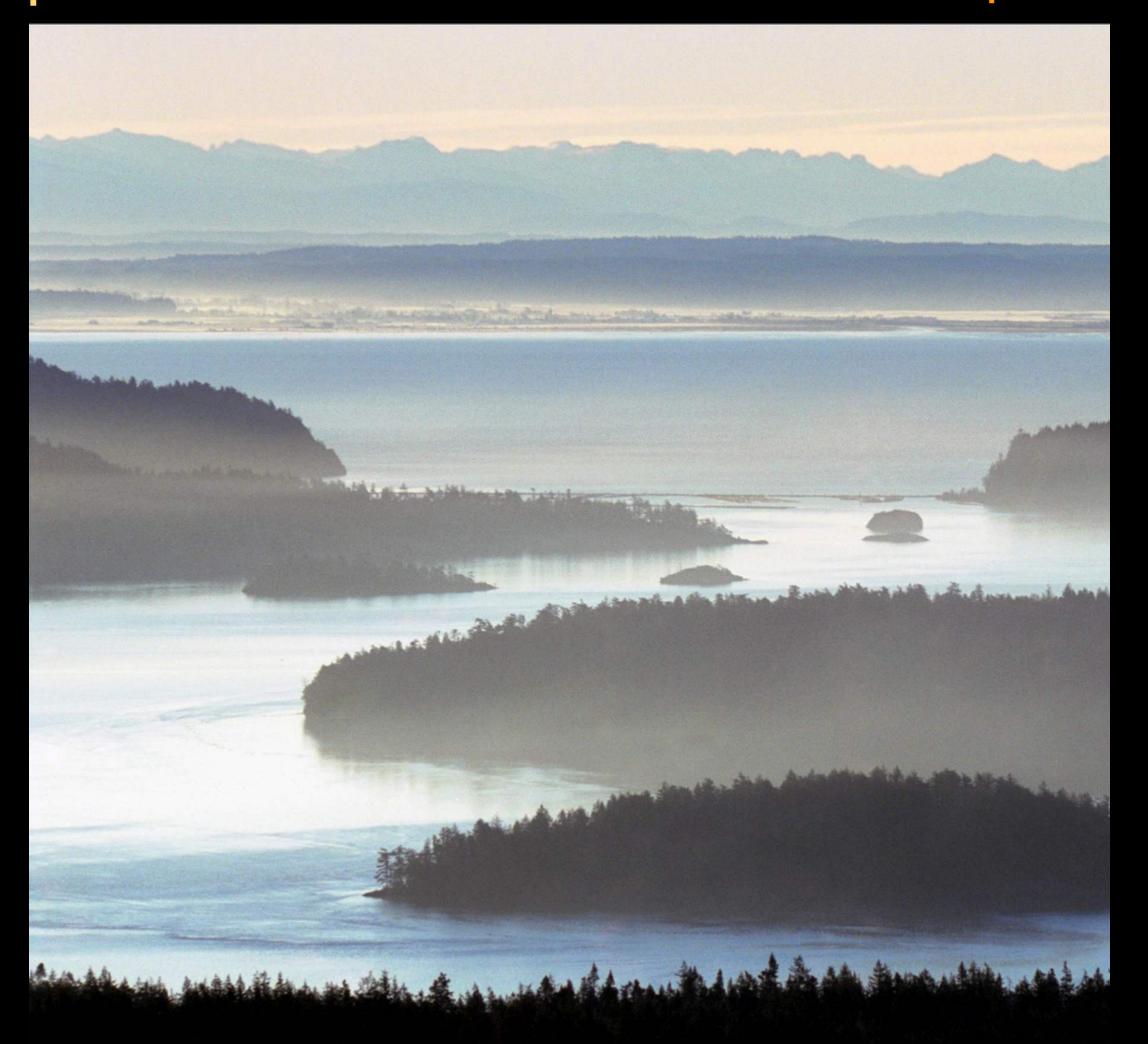
Major Sources

Transportation

47%

Heating

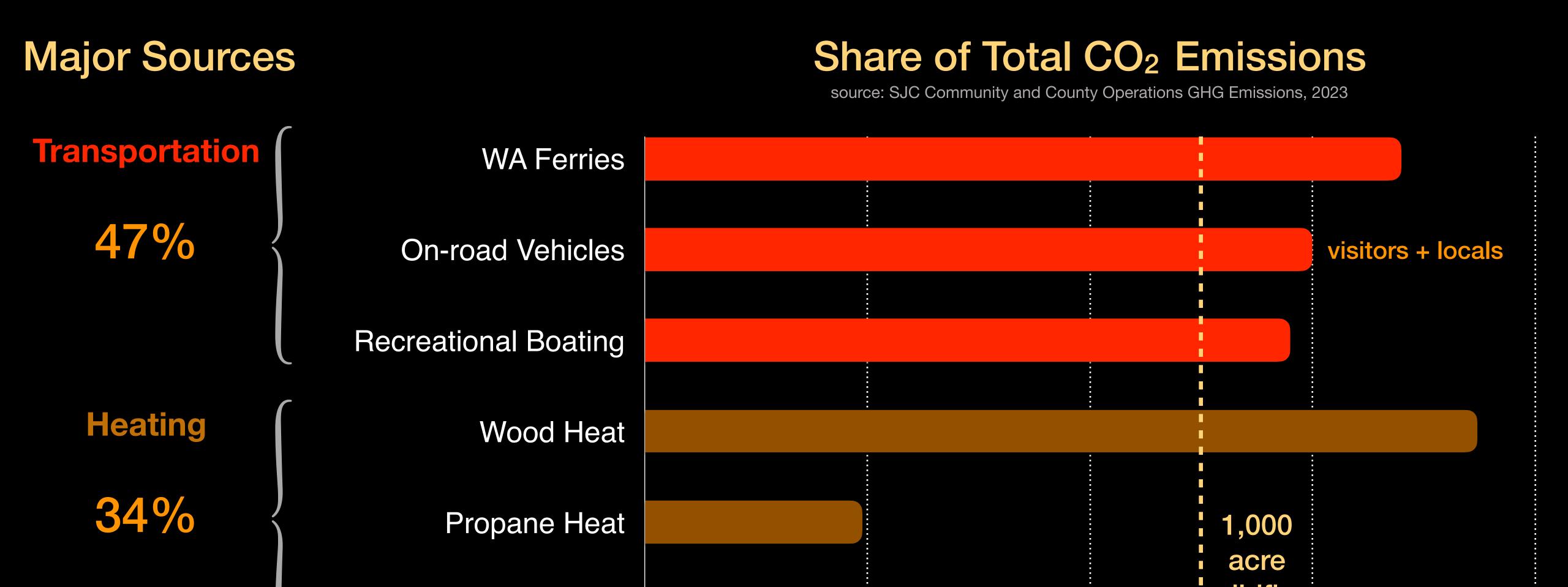
34%



SAN JUAN COUNTY COMMUNITY AND COUNTY OPERATIONS GREENHOUSE GAS EMISSIONS

= 81% of total CO2 emissions

San Juan County Carbon Footprint: 218,655 Metric Tons per Year



5%

10%

= 81% of total CO2 emissions

Tree Loss

0%

20%

15%

Transportation Lens

Transportation Electrification Modes









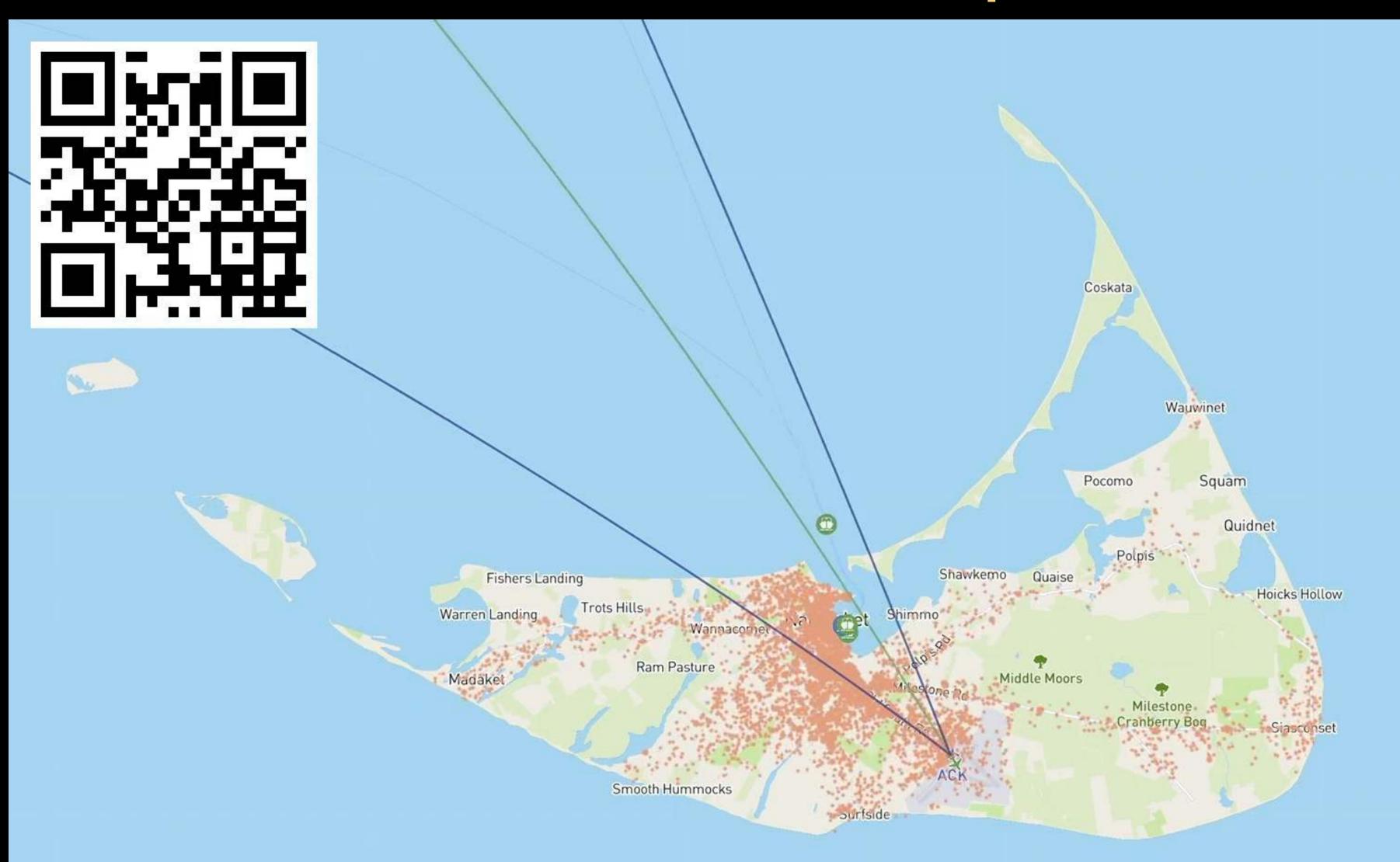






Comparable Islands

Island Transportation: Nantucket



9:17 AM

Arriving Departing

Change: +426

Population: 38,941

Population Density

2 3 5 8



Nantucket Regional Transit Authority

Wave Quick Reference System Map

Schedules & Stops

Fares & Passes

How to Ride The Wave

Special Services

Getting to Nantucket

On the Island

About NRTA

Photo Gallery

Policies/Information

Public Notices Avisos Públicos

Información

Performance Measures

Advertising Ops



cell phone or computer at TransLoc nrta.transloc.com

Taxis On Island

Taxis are available and provide transportation services island wide. Many of the taxi companies are independently owned and operated; fleet size ranges from 1 to 5 taxis. Taxis are available at Nantucket Memorial Airport, Straight Wharf, and Steamboat Wharf. Taxi stands are located at Lower Main Street/South Water Street and Main Street/Washington Street. Most taxi companies accept advance reservations. Taxi operators are not authorized to conduct tours.

The following list is informational only. This listing is provided by the NRTA as a public service. The NRTA is not responsible for any errors, omissions or misinformation contained about taxi services.

Taxi Companies Phone Numbers and Services

Services: B = bikes, V = van, E = early calls • dial 508 before all numbers

A Cab Service - 774-236-1413 A Independent Taxi - 508-228-5035 A-1 Taxi - 508-228-3330 - BVE AAA Cab - 508-902-1825 Aardvark Cab. Co. - 508-228-2223 BVE ACK Taxi - 508-228-228-5105 - VE ACK Veteran's Taxi - 508-228-5105 All Point Taxi - 508-228-5779 - VE Aloha Cab Kompany - 508-228-1044 Anne"s Taxi - 508-228-8936 - E Argo 1 - 508-498-6120 Around Nantucket Taxi - 508-325-5508-V

At Sea Taxi - 508-2281-0223 Barrett's Taxi - 508-228-0174 Beach Comber Cab - 508-360-1585 Bev's Taxi - 508-228-7874 - BV Breeze Taxi - 508-325-2170 Canty's Cab - 508-228-2888/508-228-

3638 Cathleen Fitzgerald - 508-228-8936 Charlie's Taxi - 508-228-5105 - BVE Chief's Cab - 508-284-8497 Clyde's Cab - 508-332-6200 Dave's Taxi - 508-325-1673 - E Day & Night Taxi 508-221-0263 Diane's Taxi - 508-221-5399

East Creek Taxi & Tours - 508-901-0242 Ernie's Taxi - 508-228-6610 Frog's Taxi - 508-257-4394

Independent II - 508-228-4146/508-228- T's Taxi - 508-228-5270

John's Taxi - 508-228-8936 - E Judi's Taxi - 228-7722-BVE KCK Cab - 508-901-1686 BE*

Kingfish Taxi - 508-325-7763 Lisa's Taxi - 508-228-2223 - BVE Lynne S. Walton - 508-325-5514 Mike's Taxi - 508-325-7147 Milestone Taxi - 508-325-5511 - BVE

Nantucket Red Taxi - 508-325-7700 - VE Nantucket Taxi & Limo508- 228-8936 Pirates Taxi - 508-680-4895 Richard Hardy - 508-228-2717 Richie's Taxi - 774-236-1413

Roger's Taxi - 508-818-8294 - BVE Rolling Stone Taxi - 508-325-5511 Shoreline Taxi - 508-325-4646

Skippy's Taxi - 508-736-6963 Smitty's Taxi - 508-228-5035/508--221-

Stackpole Taxi - 508-228-9223 Stacy's Taxi - 508-228-8087 Suzie's Taxi -508-228-8353

Tackzee - 617-823-0123

Tank's Taxi - 508-228-5786 - VE Taxi Service - 508-228-5105 Terrapin Taxi - 508-228-5035 - BE

population and a

average summer

Aug)

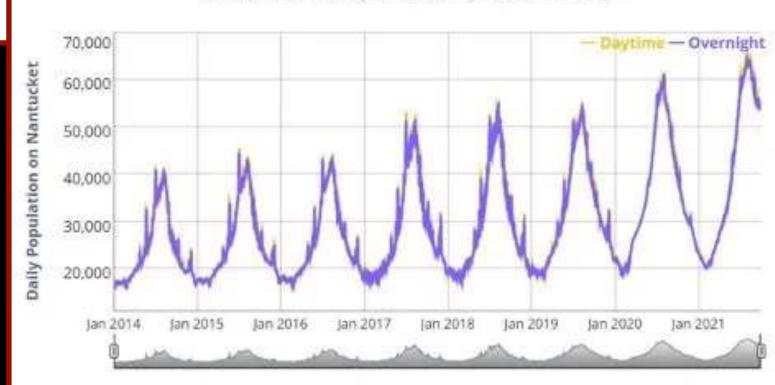
population (June-

69% increase in the

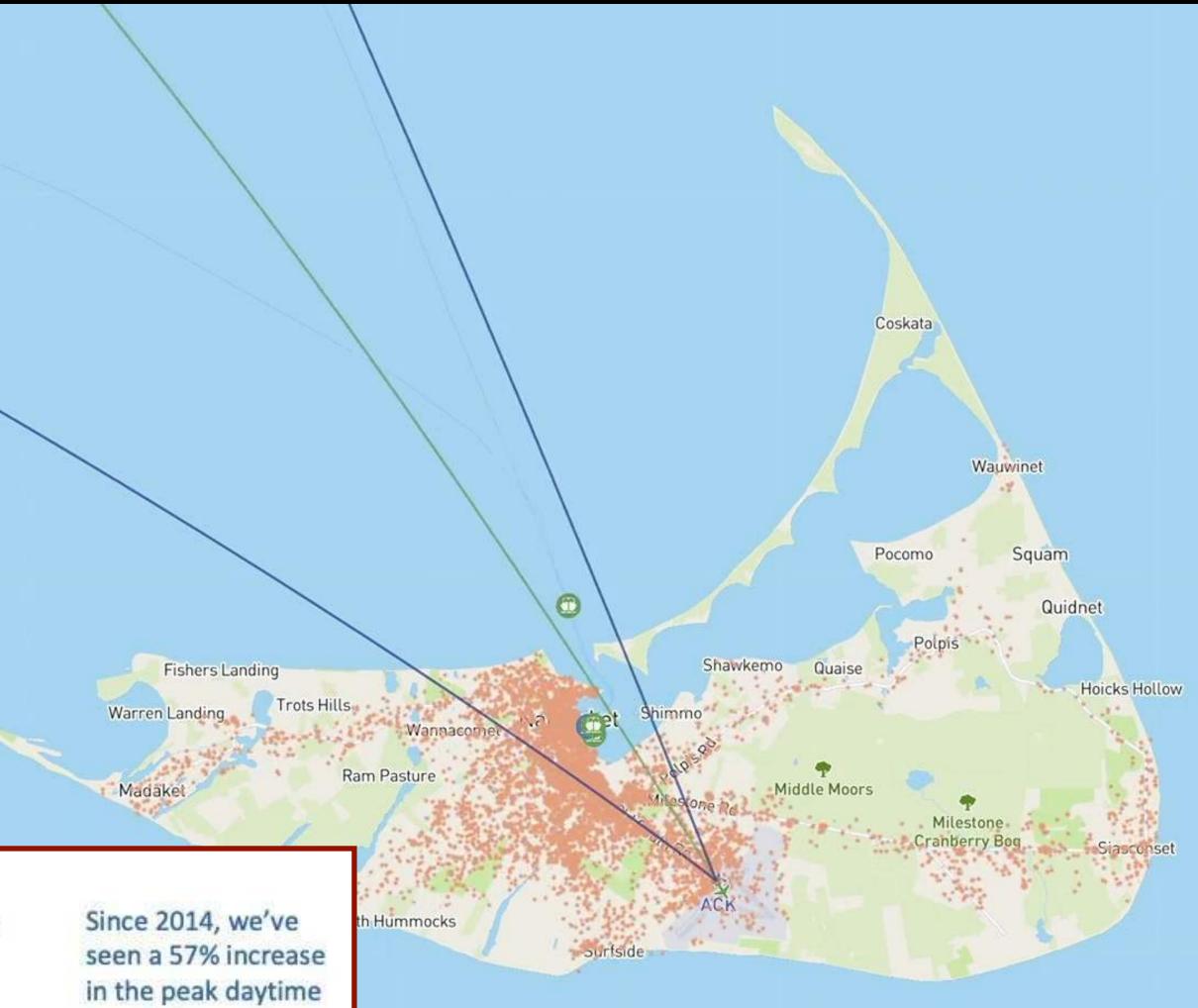
TMS Taxi - 508-228-7874 TNT Taxi - 508-325-2397

Town Taxi of Nantucket - 508-325-3391

Daily Peak Population (2014-2021)



Island Transportation: Nantucket



Leaflet | © MapBox contributors

9:17 AM

Change: +426

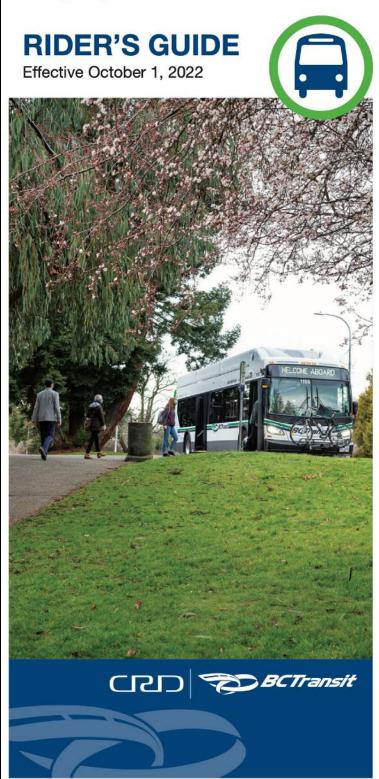
Population: 38,941

Population Density

Departing

Island Transportation: Salt Spring Island

Salt Spring Island Transit



Welcome Aboard

Your local transit system runs seven days a week. Buses serve the Ganges area with service to Fulford Harbour, Vesuvius, Long Harbour, Fernwood and Walker's Hook.

Salt Spring Island Transit provides fixed-route service only, providing scheduled service to major destinations and residential areas.

About Your Transit System

Funding for your local transit system is cost-shared between the Capital Regional District (CRD) and BC Transit.

Decisions on fares, routes and service levels are made by the Regional District Board based on public feedback and information provided by BC Transit and the CRD's SSI Transportation Commission. Buses are operated by Salt Spring Transit.

Operating costs are covered by a combination of farebox revenue, local taxation, and provincial funding.

Contact

Customer Information 2
Lost and Found 2
Email ss
Web b

If you have comments about suggestions for improvements alt Spring Island Transpoor Phone 25 Email sa

Holiday Service

There is no bus service on New Year's Day. All other h on a Sunday schedule.

Subject to change. Check for special event service.

Pass Programs

Free Transit for Child

Children aged 6 to 12 ride handyDART buses for free a fare product or identifica

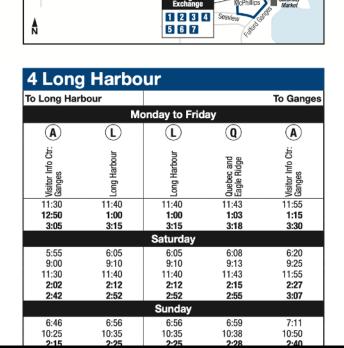
Fares	subject to change
Cash	
Adult/Student/Senior Child, 12 and under	\$ 2.25 free
Please have exact cash fare ready.	1166
Drivers do not carry change.	
Tickets (10)	
Adult/Student/Senior	20.00
DayPASS	
Adult/Student/Senior	4.50
Monthly Pass	
Adult	50.00
Student/Senior*	40.00
* Reduced fare with valid I.D. for persons 65 or and students in full-time attendance to Grade	
Ticket and Pass Outlets	S

- Country Grocer

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	Monday to Friday							
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l	Visitor Info Ctr. Ganges	Meadowbrook	Hospital/Crofton	Brinkworthy Place	Visitor Info Ctr. Ganges			
Γ	8:00	8:03	8:06	8:10	8:17			
ı	10:00	10:03	10:06	10:10	10:17			
ı	12:10	12:13	12:16	12:20	12:27			
ı	2:00	2:03	2:06	2:10	2:17			
L	4:05	4:08	4:11	4:15	4:22			
			Saturday					
Γ	8:29	8:32	8:35	8:39	8:46			
1	10:00	10:03	10:06	10:10	10:17			
ı	12:00	12:03	12:06	12:10	12:17			
ı	1:45	1:48	1:51	1:55	2:02			
L	4:05	4:08	4:11	4:15	4:22			
			Sunday					
Γ	8:40	8:43	8:46	8:50	8:57			
1	10:05	10:08	10:11	10:15	10:22			
1	12:05	12:08	12:11	12:15	12:22			
1	2:05	2:08	2:11	2:15	2:22			
L	4:00	4:03	4:06	4:10	4:17			
L	For additiona	al Ganges Loc	al service see	6 SS Connect	tor.			

2 Fulford Harbour

	To Fulfor	d						To Ga	inges			
	Monday to Friday											
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3	Visitor Info Ctr: Ganges	Electric	Burgoyne Bay Rd	Isabella Point Rd	Fulford Harbour	Fulford Harbour	Isabella Point Rd	Burgoyne Bay Rd	Cusheon Lake and Fulford G	Visitor Info Ctr. Ganges		
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	7:15	7:21	7:28	7:32	7:35	7:40	7:43	7:47	7:54	8:00		
	9:05	9:11	9:18	9:22	9:25	9:40	9:43	9:47	9:54	10:00		
	11:10 1:10	11:16	11:23 1:23	11:27 1:27	11:30 1:30	11:40 1:40	11:43 1:43	11:47 1:47	11:54 1:54	12:00 2:00		
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	7:10	7:16	7:23	7:27	7:30	7:40	7:43	7:47	7:54	8:00		
	9:05	9:11	9:18	9:22	9:25	9:35	9:38	9:42	9:49	9:55		
					Sature	day						
	7:10	7:16	7:23	7:27	7:30	7:40	7:43	7:47	7:54	8:00		
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	Sunday											
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	7:10	7:10	1:23	1;21	7:30	1:40	7:43	7:47	7:04	0:00		
	0.17											
	3 Ves	suv	ius									



Neighbourhood routing in one direction (based on time of day

Ganges Village

Monday to Friday										
A	F	W	M	F	T	G	\bigcirc	F	A	
Visitor Info Ctr: Ganges	North End and Vesuvius Bay Rd	Walker's Hook and Fort	Fernwood Dock	North End and Vesuvius Bay Rd	Vesuvius Bay Rd and Tripp	Vesuvius Bay	Elizabeth and Bradley	North End and Vesuvius Bay Rd	Visitor Info Ctr:	
6:20	6:26	6:33	6:44	6:53	6:55	6:59	7:03	7:07	7:14	
0120	O.L.O	0.00	0111		rday	0.00	7.00	1101	7.11	
6:20 8:00	6:26 8:06	6:33 8:13	6:44 8:24	6:53 8:33	6:55 8:35	6:59 8:39	7:03 8:43	7:07 8:47	7:14 8:54	
Sunday										
7:11 8:05	7:17 8:11	7:24 8:18	7:35 8:29	7:44 8:38	7:46 8:40	7:50 8:44	7:54 8:48	7:58 8:52	8:0 8:5	
6 SS Connector PM										

Salt Spring Island

-11- Ganges Local

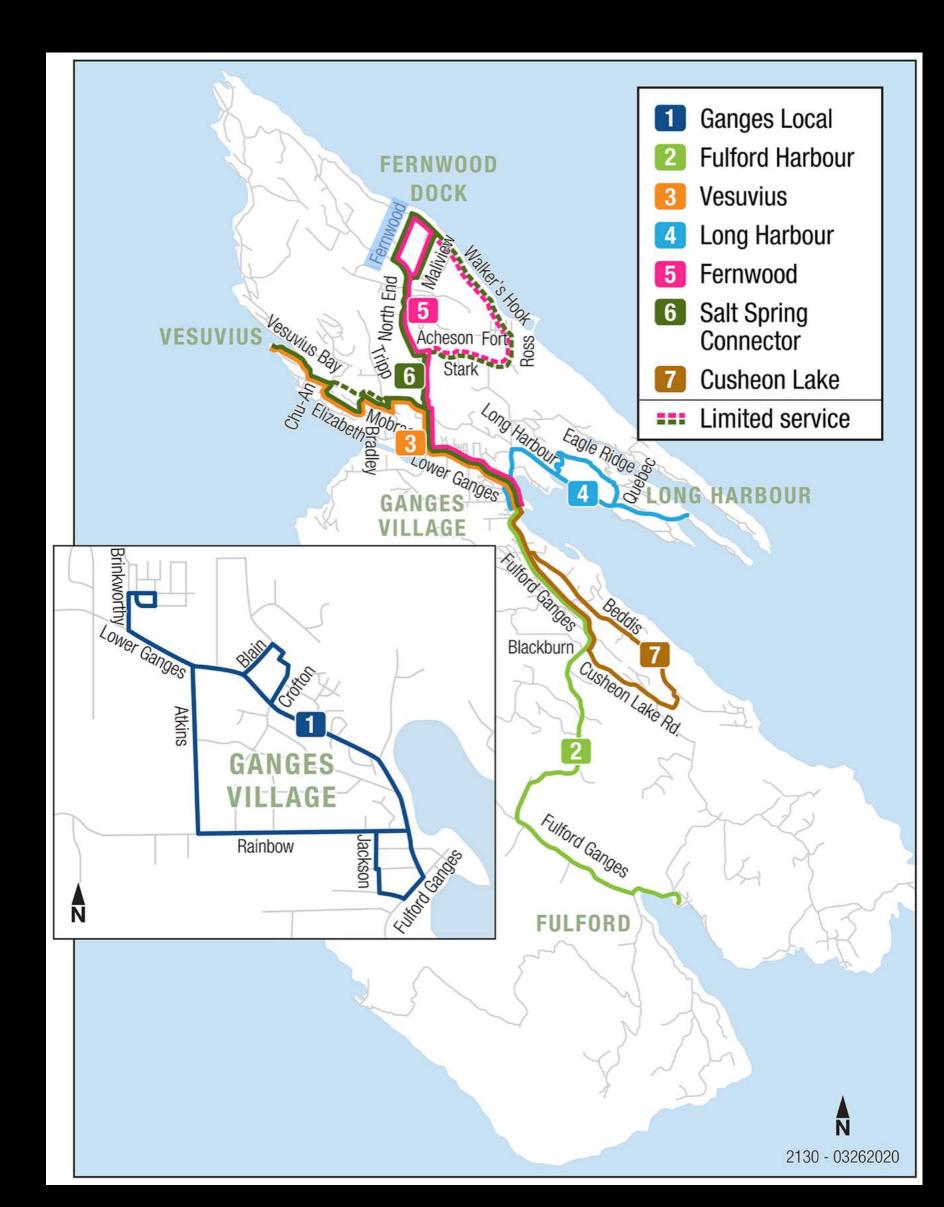
-2- Fulford Harbou

-41 - Long Harbour

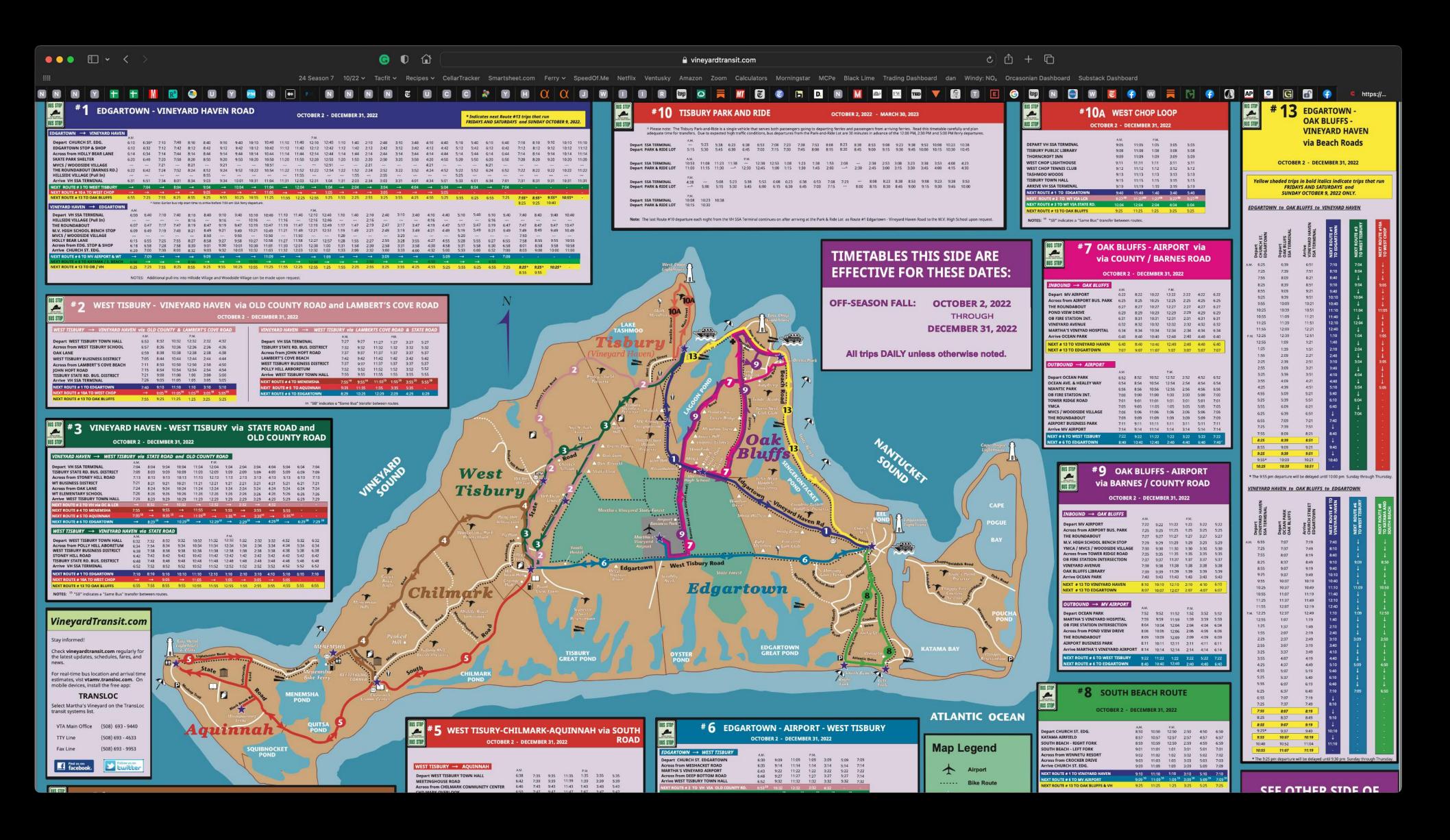
-6 - SS Connector

73 - Cusheon LakeLimited Service

-6 Fernwood

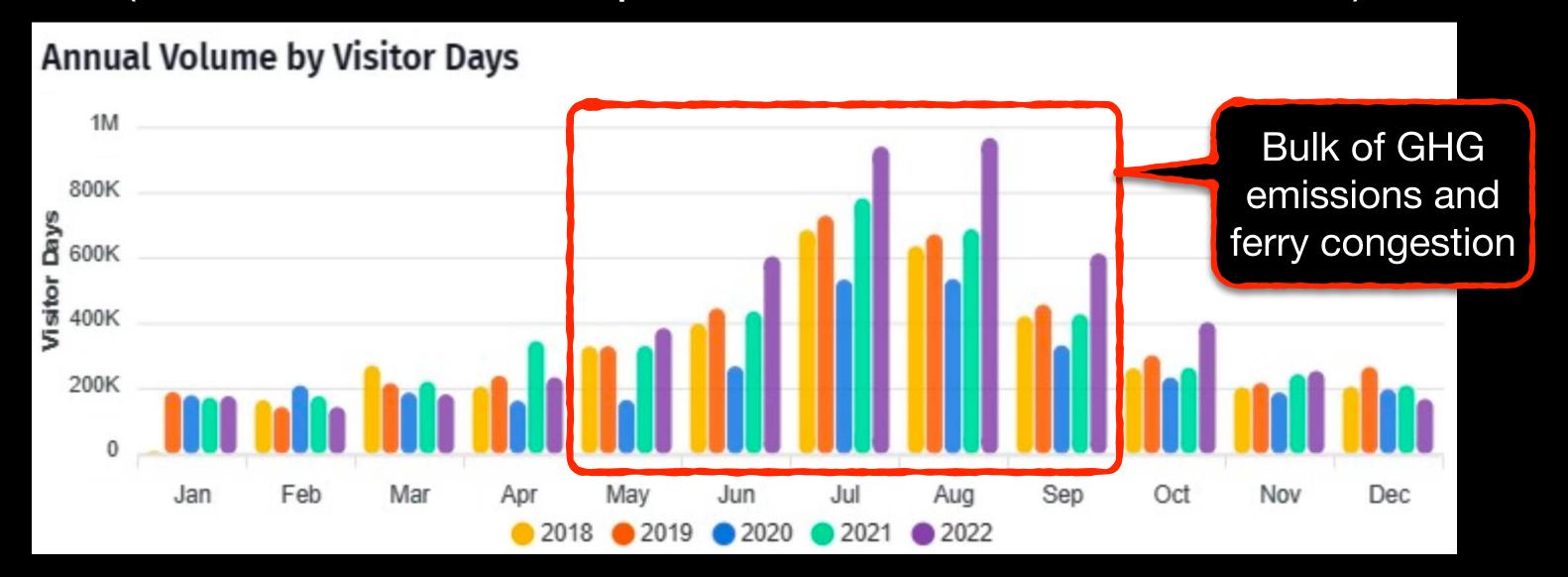


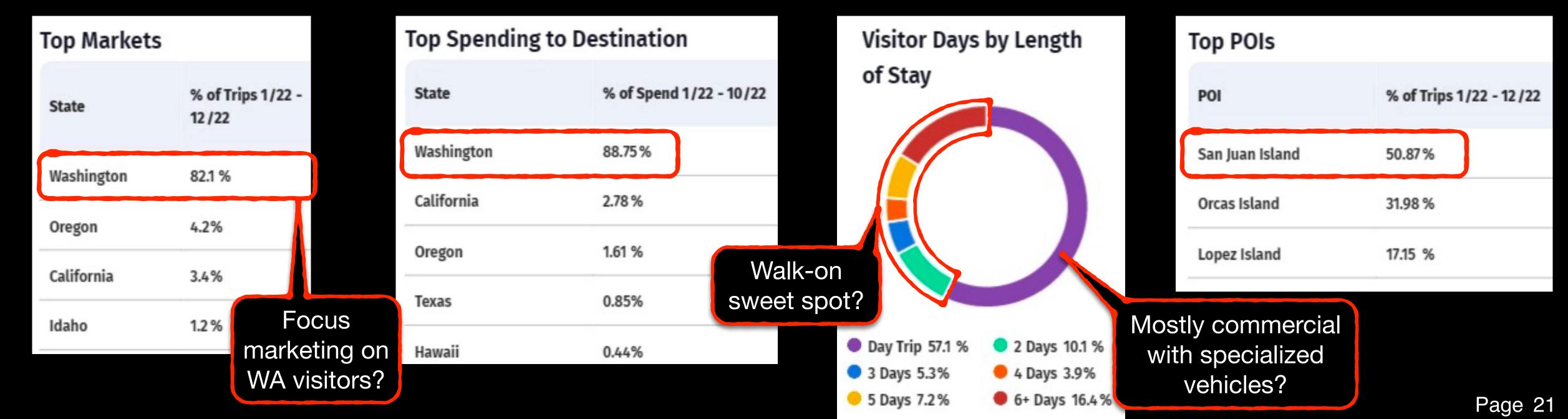
Island Transportation: Martha's Vineyard



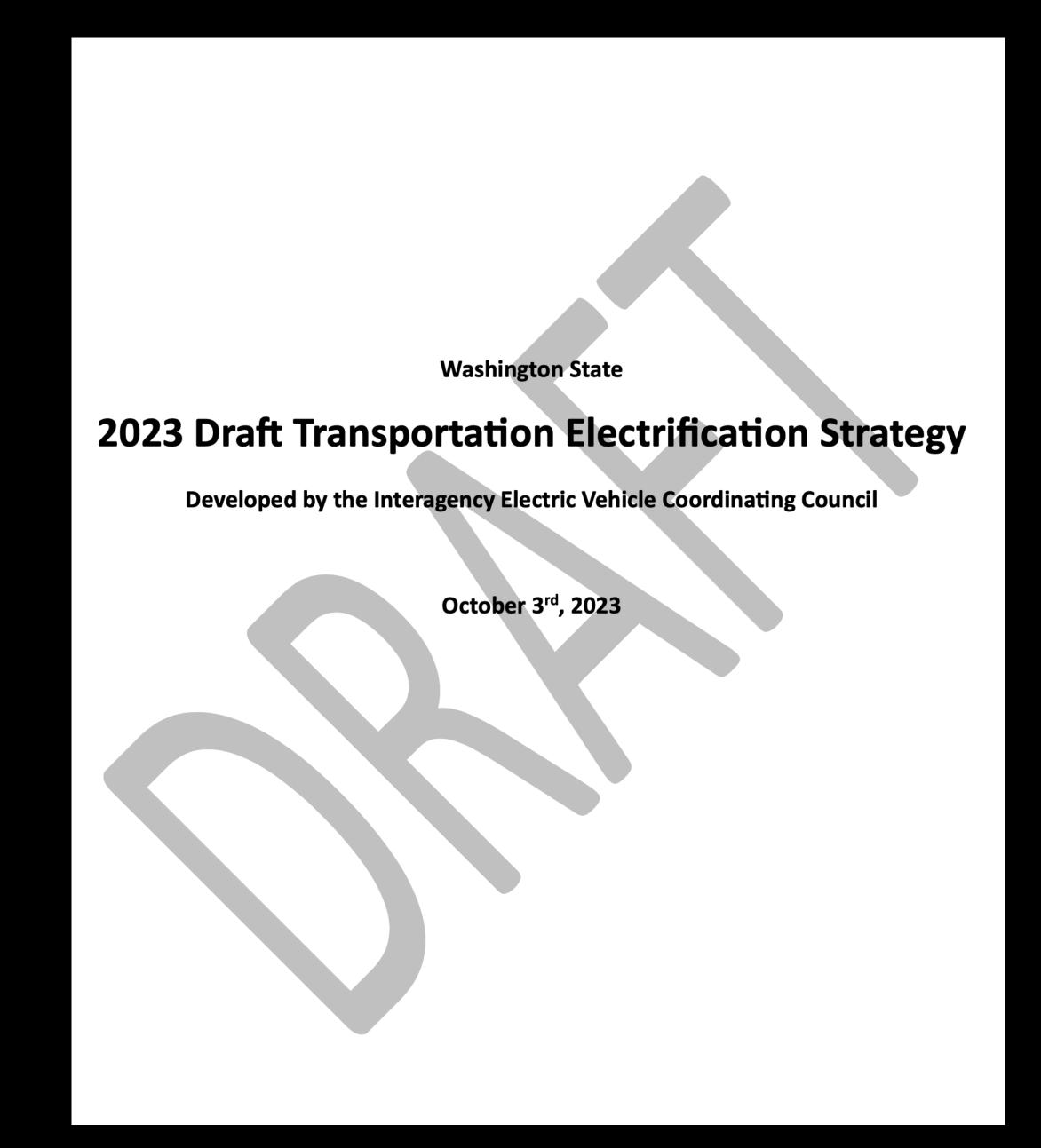
Island Transportation: San Juan County

(based on visitor cell phone GIS and credit card data)



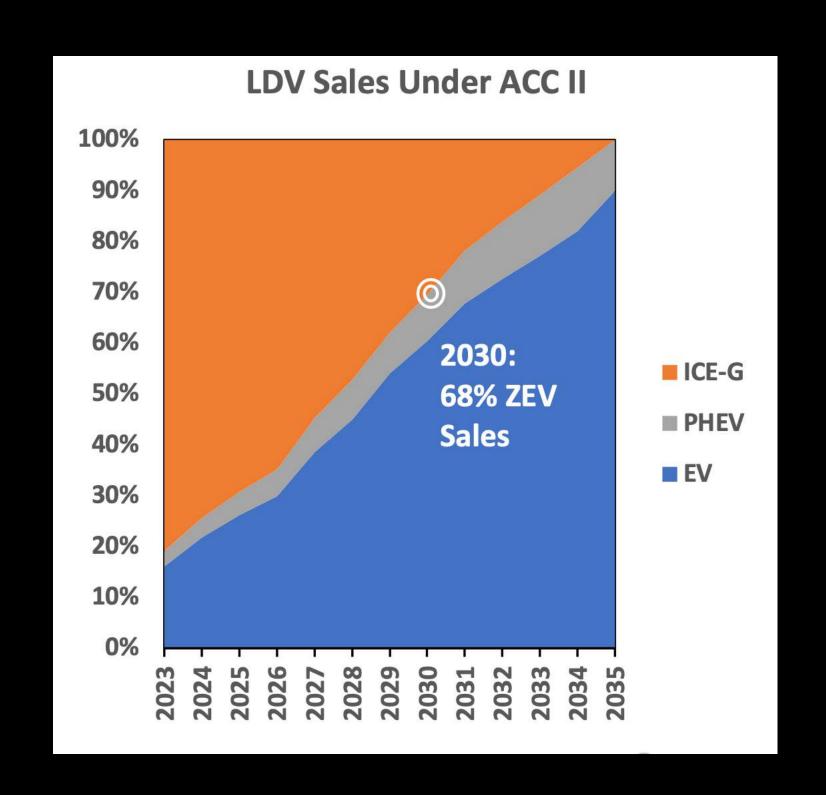


WA Transportation Electrification Strategy

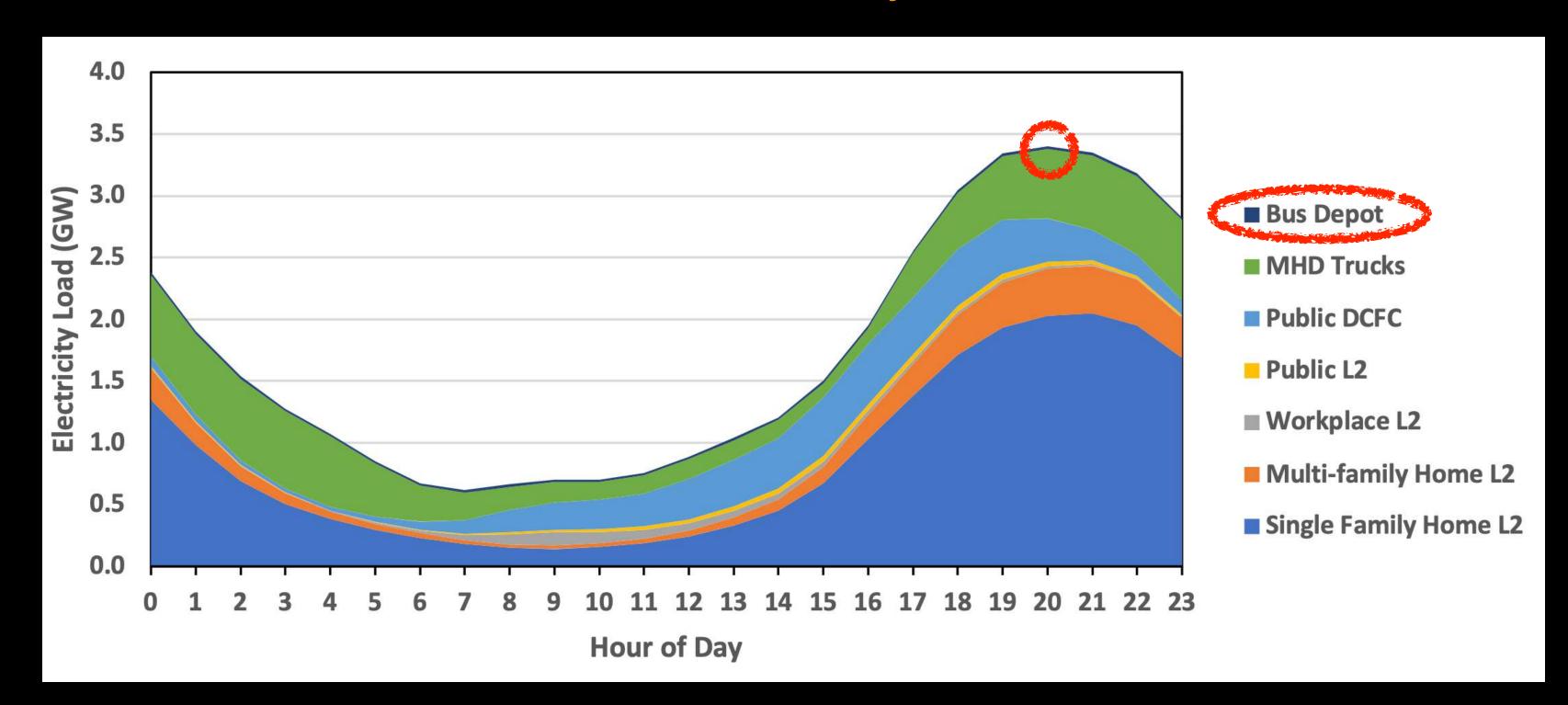


WA Transportation Electrification Strategy

Light Duty Vehicle Sales under Advanced Clean Cars II Regulation



Statewide EV Load Shape for Strong Electrification Policy Scenario



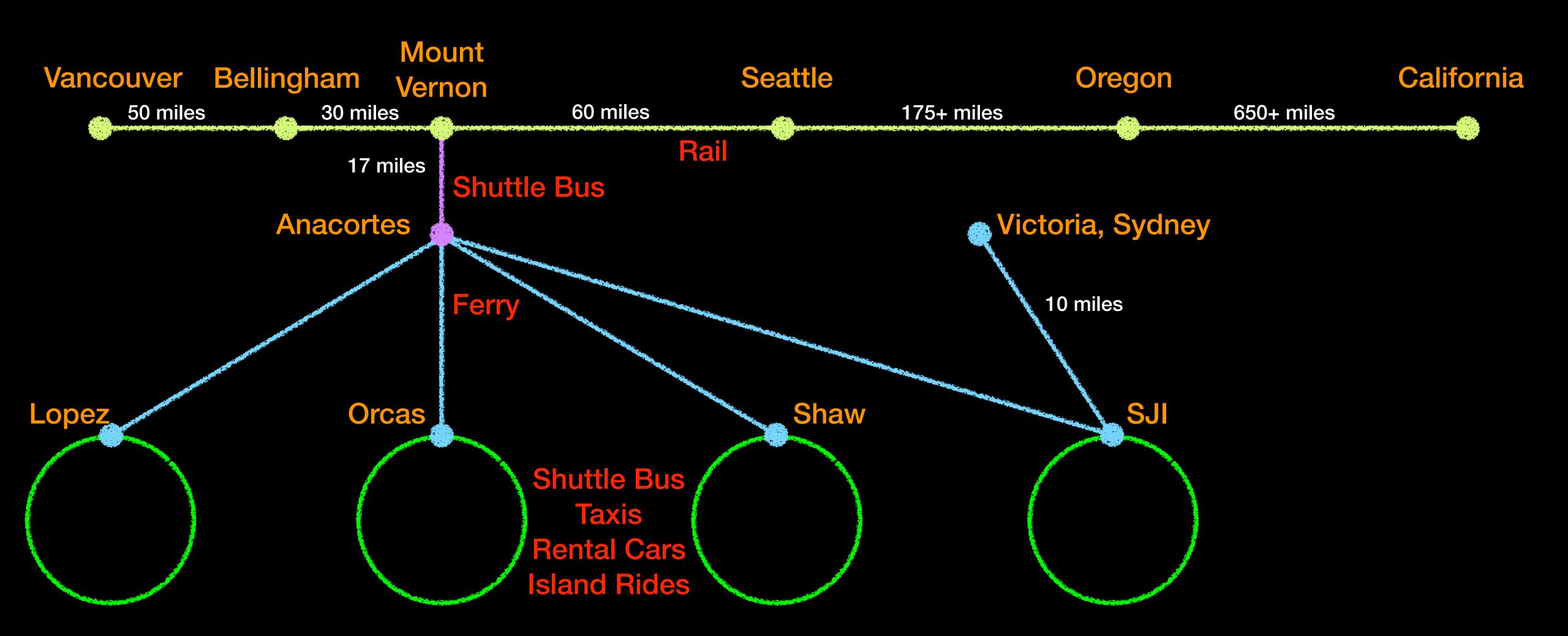
WA DOT and SWISS Discussion

Forthcoming meeting with WSDOT leadership to deepen discussion about public transit options, including:

- Public Transit Benefit Area (PTBA) (31 systems in WA, that cover all or parts of 23 counties and serve 132 cities)
- potential approaches to improving access
- serving senior and vulnerable populations, etc.
- demand responsive micro-transit
- SWISS: How to grow a unified regional public clean transportation system that provides affordable convenient access to all?

Public Transportation Network: Rail, Ferries, Shuttles

In 2022, 82% of visitors to San Juan County came from Washington



Local Electric Passenger Ferry Construction?

Dakota Creek Industries, Annacortes



Thank You!