Jamestown S'Klallam Tribe

Priority Climate Action Plan

2024

Introduction

Since time immemorial, the Jamestown S'Klallam Tribe (JST) has lived and cared for the land and waters of the Olympic Peninsula of Washington State. Rooted in a deep understanding and knowledge of place, the Tribe continues to restore, maintain, and protect resource-rich ecosystems. Through time, the Tribe has successfully adapted to past climate and societal changes, yet the rapid pace and large magnitude of the current and coming climate impacts requires further strategic and collaborative planning and action.

In 2022, Tribal Council approved a Carbon Neutral Plan with a goal of net zero emissions by 2032. This plan, prepared by Cascadia Consulting Group, Inc., conveys Jamestown S'Klallam Tribe values and knowledge through its multidisciplinary approach to creating climate solutions. This approach includes understanding from both western sciences and invaluable Indigenous perspectives. Jamestown S'Klallam Tribe is committed to building collective power and increasing Tribal capacity to defend and protect land and environment for the next seven generations. Guided by GHG inventory results and the Carbon Neutral Advisory Committee, The Carbon Neutral Plan outlines strategies and actions that facilitate a transition to climate-resilient and sustainable operations.

This Priority Climate Action Plan (PCAP) will draw strategies from the 2022 Carbon Neutral Plan, identify priority measures, and analyze and quantify the GHG emissions reductions associated with priority measures. The following report will serve as pre-requisite for competing in the second phase of EPA's Climate Pollution Reduction Grant program, which will competitively award $4.6 billion for implementation, and will help further focus JST's emissions reduction goals.

Elements included in this Priority Climate Action Plan:

- GHG Inventory Report
- Quantified GHG reduction measures
- A benefits analysis
- A review of authority to implement

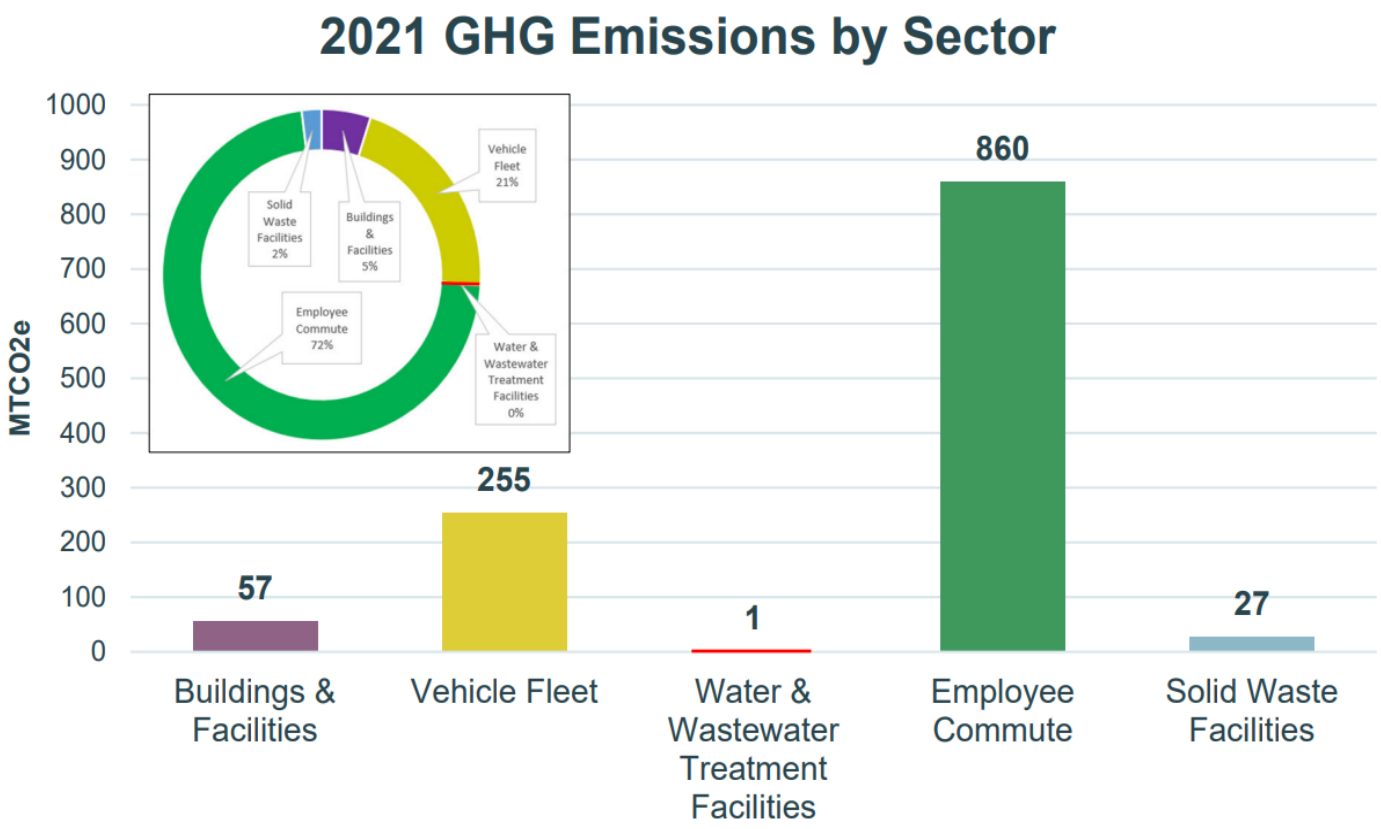
Greenhouse Gas (GHG) Inventory Report

ICLEI Clear Path Report

To reach carbon neutrality, it is critical to assess Jamestown S'Klallam Tribe's current emissions sources. A GHG emission inventory was conducted for 2021 Jamestown S'Klallam Tribal government operations. The 2021 GHG emission inventory was created using ICLEI's ClearPath tool and included emissions from energy uses from the following sources:

- Buildings
- Vehicle Fleets
- Water & Wastewater
- Employee Commute
- Solid Waste

ICLEI ClearPath Report



EPA's Tribal Greenhouse Gas Inventory Tool (TGIT)

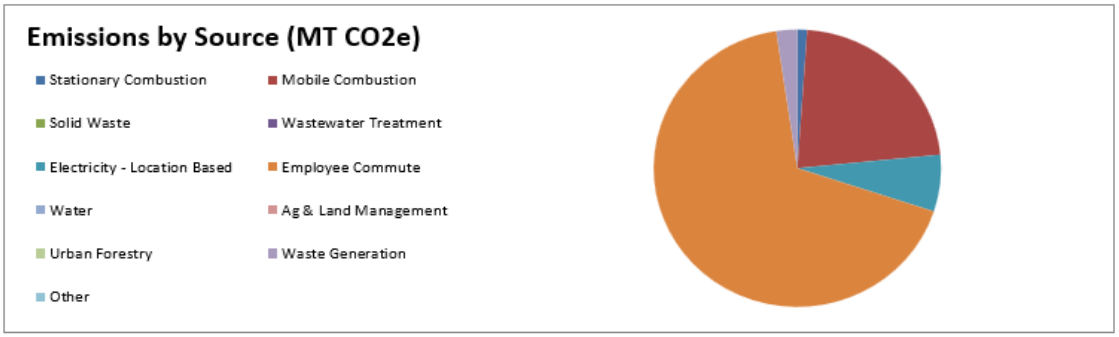
As explained in the JST CPRG QAPP, tribal staff chose to supplement and cross-check the existing 2021 GHG inventory using ICLEI's ClearPath tool with estimates derived from EPA's Tribal Greenhouse gas Inventory Tool (TGIT) for quality control. The source categories analyzed using the TGIT were the following:

- Stationary Combustion
- Mobile Combustion
- Wastewater Treatment
- Electricity
- Employee Commute
- Water
- Waste Generation

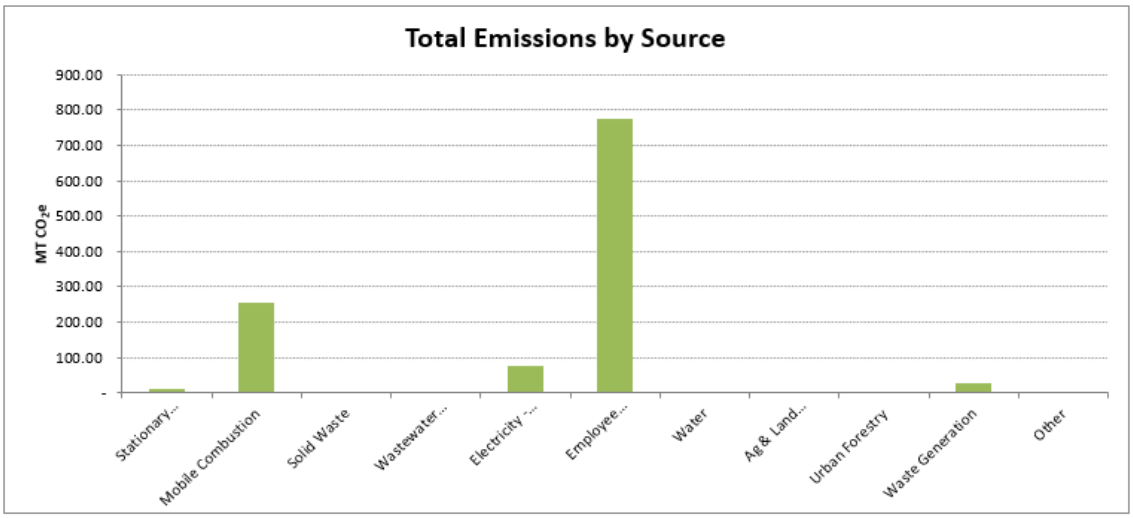
Data was not entered into the following source categories:

- Solid Waste – *JST does not operate their own landfill. Solid waste emissions are accounted for in the Waste Generation sector*.
- Ag & Land Management – *JST does not manage any agricultural lands.*
- Urban Forestry – *JST chose to omit this optional sector for the PCAP.*

Tribal Greenhouse gas Inventory Tool (TGIT) Report



Gross Emissions by Department		
Department	Total (MT CO_2e)	Percent of Total
Tribal Government	1,147.82	100%
Total	**1,147.82**	**100%**



GHG Sources

Methods used for gathering data, and any significant discrepancies between the two data sets will be discussed in the sector sections below.

Buildings and Facilities

The first step in collecting data for the Buildings and Facilities category was to fill out a Request for Public Records form to send to Clallam County PUD. The request was for total energy usage by the Tribe in 2021. Clallam County PUD complied with the request and provided a spreadsheet with each JST property and the associated energy use in kilowatt hours. The data was entered into ICLEI ClearPath and converted to MTCO2e. The buildings run off grid electricity supplied by BPA.

Many of the main campus buildings are also equipped with propane generators, and a few Tribal homes run off propane heat. JST accounting department provided the propane invoices for 2021. The amount of propane used for 2021 was entered into ICLEI ClearPath.

The data was entered again into the TGIT, following the steps outlined in the JST CPRG QAPP. A direct comparison between results from the ICLEI ClearPath tool and the TGIT is challenging due to the differences in how the sources are categorized. In the TGIT, the emissions from the electricity used in Buildings and Facilities are included in **Electricity** sector. The propane accounted for in Buildings and Facilities is included in the **Stationary Combustion** sector for TGIT. After isolating each category, the results are comparable.

Vehicle Fleet

To gather GHG data for Tribal Government vehicle fleet, JST Environmental Planning staff reached out to JST Facilities staff for a spreadsheet of the vehicle and boat fleet. The following information was requested:

1. Type of vehicle
    a. Gasoline
        i. Passenger/motorcycles
        ii. Light Truck/Van/Small Bus
        iii. Heavy Duty Truck
    b. Diesel
        i. Passenger
        ii. Light Truck/Van/Small Bus
        iii. Heavy Duty Truck
    c. Year of vehicle

JST accounting pulled the information of bills from the Tribe's gas station. Annual fuel use (gallons), odometer data (annual vehicle miles traveled), and the percent breakdown of passenger vehicles, light trucks and heavy trucks were entered into ICLEI ClearPath tool. Vehicles that run on gasoline and diesel were calculated separately. Boats were also included in the Tribe's Vehicle fleet.

The same dataset was entered into the TGIT under the **Mobile Combustion** category for quality assurance, and the results were identical.

Water and Wastewater Treatment Facilities

The emissions within the category Water and Wastewater in the ICLEI Clear Path model are from the electricity used to pump water to different buildings, homes, and to the Wastewater Treatment Plant in the City of Sequim. Emissions from the wastewater treatment plant are not included in the ICLEI model since the Tribe does not have operational control over the plant.

The Tribe does not import their water supply, so Water emissions were not included in the TGIT. The emissions from the water pump electricity are accounted for in the **Electricity** category in the TGIT. Emissions from the wastewater treatment plant are not included in the TGIT model since the Tribe does not have operational control over the plant.

Employee Commute

Gathering data for Employee Commute for ICLEI ClearPath started with JST Environmental Planning staff requesting a spreadsheet from Human Resources with the number of employees, status, zipcodes of where they live, and work location. Zipcodes were assigned a center point and a distance in miles to work location. Employee commute miles were summed and multiplied by the number of working days to find the Employee Annual VMT value. 2021 US National Defaults were input for percentage of passenger cars (60.6) vs. light trucks (32.4.)

In the TGIT, default values were used for employee mode of transportation and number of workdays. For commute length, the value that JST staff had previously calculated, 13.7 miles (only slightly higher than the TGIT default value, 12.6 miles) was entered.

The emissions calculated from the TGIT for employee commute were 775.89 MTCO2e, slightly lower than the calculations from ICLEI ClearPath, 860 MTCO2e. This may be due to the use of the default values in ITEP for employee mode of transportation. Default values for carpooling (10%) and transit (5%) are most likely higher than the reality. Carpooling and transit users were not accounted for in the ICLEI model, reflecting a number most likely lower than reality.

Solid Waste

Gathering data for Solid Waste sector for the ICLEI tool began by listing all trash bins and the associated volume on Tribal government buildings. A default value for the density of trash was used to calculate weight.

To break down the contents within the trash, default values from State of Washington Department of Ecology (Ecology) 2020-2021 Waste Characterization Study were used. Ecology commissioned Cascadia Consulting Group to conduct the municipal solid waste study. The planning phase for the study included:
1. Selecting representative counties to visit across the state

2. Scheduling solid waste disposal facilities, statewide, for surveying and sampling

3. Defining the waste sectors to include in the study

4. Creating the list of material types to measure in the study

Following the planning stage, Cascadia implemented the data collection and analysis strategies, which included:

1. Determining the composition of the waste stream through sampling and sorting

2. Quantifying the waste stream through vehicle surveys

Solid Waste from Tribal Government is diverted to a landfill not operated by the Tribe. In the TGIT, the emissions from solid waste are accounted for in the **Waste Generation** section. Entering the data using default values from the Ecology study again into TGIT, the results were identical.

Priority Measures for GHG reduction

Stakeholder Engagement: The Tribe has a Sustainability Committee that consists of Tribal Council Members and JST staff representing several departments to work towards a carbon neutral goal. The committee engages with Tribal Citizens to establish priority activities to achieve the goal of carbon neutrality. JST CPRG Project staff work with the committee to determine PCAP priority measures.

Transportation Sector

Measure: Decarbonize Fleet Vehicles	Tribal vehicles are used daily as transportation to and from different Tribal buildings and properties. Facilities staff traveling to clean, maintain, and check water quality; Natural Resources staff traveling to and from survey sites; all staff traveling to meetings and trainings, to name a few. The JST Carbon Neutral Plan outlines the priority of retiring old and under-used combustion engine Tribal fleet vehicles that are owned by the Tribe and replace them with electric vehicles. The current JST fleet consists of 61 vehicles including 58 internal combustion engines and 3 hybrid electric vehicles. The goal is for the vehicle fleet to consist of all electric vehicles.	
Metrics for tracking progress:	vehicle miles traveled for electric vehicles; updates to Tribal Government Vehicle List.	
Estimate of quantifiable GHG emissions reductions:	210.51 MTCO2e	
Co-pollutant Reductions:	Expected co-pollutant reductions of carbon monoxide, VOCs, and particulate matter.	
Co-Benefits:	• Improved air quality: ZEVs do not emit tailpipe criteria air pollutants such as nitrogen oxides and particulate matter. • Increased resiliency for a rural community where access to fuel is easily interrupted. • Long-term cost savings: ZEVs have lower maintenance costs, and electricity costs less than gasoline.	
Implementation Agency:	Jamestown S'Klallam Tribe	
Implementation Authority:	Jamestown S'Klallam Tribal Council has approved the measure outlined in the JST Carbon Neutral Plan.	
Implementation Milestones:	Securing appropriate funds to purchase electric vehicles and charging infrastructure.	

Measure: Decarbonize Fleet Vessels	Shellfish harvesting is a treaty right for the Jamestown S'Klallam Tribe. JST Natural Resources staff monitor the geoduck fishery on the water to ensure that divers and boat owners are following State and Tribal regulations. The geoduck monitoring boat is due to be replaced within the next 2 years. This priority reduction measure would replace the current gas-powered boat with an electric or hybrid-electric vessel.
Metrics for tracking progress:	Nautical miles traveled in electric/hybrid electric vessel; kilowatts of electricity used to charge boat.
Estimate of quantifiable GHG emissions reductions:	10.21 MTCO2e
Co-pollutant Reduction:	Expected co-pollutant reductions of Sulphur oxides and particulate matter. *Note that co-pollutant reductions cannot be calculated due to unknown time spent idling, engine off, and running.
Co-Benefits:	improved air quality; improved water quality; less likely to harm wildlife; health benefits from less harmful fumes.
Implementation Agency:	Jamestown S'Klallam Tribe
Implementation Authority:	Jamestown S'Klallam Tribal Council has approved the measure outlined in the JST Carbon Neutral Plan.
Implementation Milestones:	Securing appropriate funds to purchase electric marine vessel and charging infrastructure.

Waste and Materials Management Sector

Measure: Develop a food recovery program and expand infrastructure for onsite food waste processing	Invest in compostable to-go containers for Tribal elders and other community members to take food home when there are leftovers at the Elder Luncheons or other events. Divert remaining food waste from landfills where it would decompose anaerobically and create methane, to an onsite biodigester.
Metrics for tracking progress:	Food waste collection quantities
Estimate of quantifiable GHG emissions reductions:	60.47 MTCO2e
Co-Pollutant reductions:	* Note that the co-pollutant reductions could not be calculated due to the large range of possible actions and a lack of reliable data on their specific impacts.
Co-Benefits:	Use of greywater effluent in irrigation for landscaping would promote water conservation.
Implementation Agency:	Jamestown S'Klallam Tribe
Implementation Authority:	Jamestown S'Klallam Tribal Council has approved the measure outlined in the JST Carbon Neutral Plan.
Implementation Milestones:	Securing appropriate funds to purchase biodigester.