



**Juneau Commission on Sustainability**

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To: Denise Koch, Director Eng & Public Works  
Assembly PWFC Members

From: Nick Waldo, Chair, Juneau Commission on Sustainability

Subject: JCOS Recommendations for FY2025 CIP

Date: March 1, 2024

The Juneau Commission on Sustainability has reviewed the [first draft CIP Resolution 3052 - Jan 29 2024 PWFC](#), focusing on its contribution to meeting the CBJ's sustainability goals and priorities, and offers the following comments and recommendations.

The draft includes a number of projects that relate to solid waste management, energy use, and climate action that will contribute to meeting CBJ's sustainability goals. However, as we have noted in past years, CIP project descriptions currently have very little information or quantification relating to specific sustainability policies or goals, including the Assembly's 2024 goals, so it is difficult to evaluate them.

JCOS identified the following gaps in the draft CIP relating to meeting CBJ goals as outlined in the JCAIP and the JRES, and the Assembly's 2024 sustainability goals:

- No funding relating specifically to long-term decarbonization of CBJ facilities
- No funding relating to CBJ fleet electrification
- No funding for public EV charging.

JCOS is recommending the addition of three new projects to the CIP, and offers comments on an additional one to more specifically address JCAIP, JRES, and Assembly sustainability goals. JCOS also adds comments supporting proposed CIPs addressing solid waste issues.

We would appreciate having these recommendations incorporated into the next version of the CIP, and included in materials provided to the PWFC.

**Background**

CBJ facilities and operations burn about 1.3 million gallons of gas/oil and use 37 million kWh of electricity – costing about \$9 million for energy and creating about 12,400 metric tons of carbon pollution– or about 5% of Juneau’s total of 300,000 metric tons. The CBJ’s carbon emissions can be divided into 4 roughly equivalent pots:

Schools	4,000 m. tons
General facilities	3,000 m. tons
Wastewater/water system	2,800 m. tons
Bartlett Hospital	2,600 m. tons

An additional 18,000 metric tons of carbon emissions are emitted annually at the CBJ's two downtown cruise ship docks.

### **JCOS CIP Recommendations**

#### **Feasibility assessment of heat pump systems for CBJ buildings. \$100,000/year FY25-27**

This project would fund site assessment, technical evaluation, and financial analysis to identify opportunities for replacing oil heating systems in CBJ buildings with Ground Source Heat Pumps (GSHP). The CBJ’s experience in installing, operating and maintaining GSHP systems at four facilities for more than a decade provides a strong base for evaluating additional opportunities in other facilities, including the JSD.

Heat pumps have among the lowest life-cycle costs for heating systems in Juneau even before the new federal “direct pay” subsidies that can cover up to 50% of the costs for GSHPs. This provides an opportunity over the next 5-10 years for the CBJ to significantly reduce a large proportion of the oil heating and carbon emissions in many of its facilities while reducing operating costs. For example, the Auke Bay School, heated by a GSHP, has heating costs that are about half the cost per square foot as other JSD buildings, with zero emissions.

This project relates directly to implementation of Assembly Sustainability Goal 5B:

“Identify and prioritize the most cost-effective energy efficiency and electrification upgrades in CBJ facilities.”

#### **CBJ fleet electrification and charging infrastructure grant program. \$300,000/yr. (6 years)**

This program would allow CBJ departments to cover the additional cost of replacing internal combustion vehicles with EVs. It would also provide funding to install necessary charging infrastructure. Federal incentives will cover up to 30% of EV costs. This project will be used to receive these direct pay funds from the IRS, as well as provide matching funds for any fleet electrification and fleet charging infrastructure grants.

The CBJ owns and operates about 340 vehicles, which burn about \$1 million worth of gas and diesel, and create about 2,725 m. tons of carbon pollution per year. About 60% of the CBJ vehicles scheduled for replacement in 2024 could be replaced with EV's.

This project relates directly to Assembly Sustainability Goal 5C:

“Implement projects and strategies that advance the goal of reliance on 80% of renewable energy sources by 2045.”

**Public EV charging infrastructure.** \$100,000/yr. (6 years)

This funding would allow the CBJ to continue to contribute to installing and upgrading public EV charging infrastructure. In combination with public donations and significant volunteer installation and maintenance efforts, this will continue to ensure a minimal level of public EV charging in Juneau. Federal funding may be available for EV charging upgrades in the next few years, and CBJ funds could be used for match.

This project relates directly to Assembly Sustainability Goal 5C:

“Implement projects and strategies that advance the goal of reliance on 80% of renewable energy sources by 2045.”

**Solid waste.**

The Assembly's Goal 5A (*Implement a zero waste or waste reduction plan, including development of the Zero Waste Subdivision*) argues strongly for continued CIP funding and specific projects to address the long-term solid waste issues facing Juneau. JCOS wholeheartedly supports the proposed FY25 CIP funding for 1) ongoing staff work, and 2) a study to analyze the options Juneau must consider to replace the current landfill once it reaches capacity in 10-15 years.

It would be very useful to understand the finances and feasibility of potential options - a new landfill, an incinerator with new (smaller?) landfill, shipping solid waste south, and shipping to a SE regional landfill. Presenting a timeline for needed infrastructure investments, with calculations translated into monthly fees or property taxes, would help Juneau residents understand the pocketbook effects. This study results will underscore the value of the near-term efforts at waste diversion and reduction which could help to delay these financial demands on the community, households and businesses.

cc: Dianna Robinson, Eng & Public Works  
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