

Agenda – Regular Meeting

Juneau Commission on Sustainability

Wednesday, July 6, 2022

12pm-1pm

Zoom Webinar

<https://juneau.zoom.us/j/85394133023> or 1 253 215 8782 Meeting ID: 853 9413 3023

I. CALL TO ORDER

II. AGENDA CHANGES

III. APPROVAL OF MINUTES

- a. May 27, 2022

IV. PUBLIC PARTICIPATION

V. ACTION/DISCUSSION ITEMS

- a. JCOS Staff Liaison Transition – Beth McKibben (CDD) & Denise Koch (EPW)
- b. JCOS Member Recruitment – Gretchen Keiser (JCOS)
- c. JCOS 2022 Work Priorities - Gretchen Keiser (JCOS)
- d. Juneau Climate Report – Jim Powell (JCOS)

VI. INFORMATION ITEMS

- a. Whitehorse Waste Management - Gretchen Keiser (JCOS)
- b. Energy Management at CBJ Facilities – Nate Abbott (Parks & Rec)
- c. Community Wide GHG Tool – Denise Koch (EPW)

VII. COMMISSIONER COMMENTS

VIII. Next meetings

Monthly Work session/Subcommittee	July 20, 2022@ 12PM ZOOM
Monthly Regular meeting	Aug 3, 2022 @ 12PM ZOOM
Monthly Work session/Subcommittee	Aug 17, 2022 @ 12PM ZOOM

VIII. ADJOURNMENT

DRAFT MINUTES

Juneau Commission on Sustainability (JCOS)

Wednesday, May 27, 2022, 12:00 p.m. (Noon)

Zoom

I. Call to Order. Chair Keiser called the meeting to order at 12 pm.

Commissioners Present:

Chair Keiser, Steve Behnke, Duff Mitchell, Jim Powell, David Teal

Commissioners Absent:

Lisa Daugherty, Anjuli Grantham, Colin Peacock, Danielle Meeker

Staff & Others Present:

Staff Liaison Beth McKibben,

Planning Commission Liaison Paul Voelckers,

Members of the Public Present:

Greg ?????????? KINY

II. Agenda Changes.

None

III. Approval of Minutes.

May 4, 2022

Approved (with deletion of extra page) by unanimous consent.

IV. Public Participation.

None

V. Action/Discussion Items

A. 2022 Annual Report

Chair Keiser discussed her draft report, which has changed from a chronology to a discussion of priorities, accomplishments and pending work. There was discussion of removing a reference to gardens, but the item will remain in the report. With the exception of spelling out a few acronyms, the **Commission unanimously approved Mr. Behnke's motion to approve the draft as written.**

B. Suggested Projects for 1% Sale Tax Extension

Chair Keiser presented her draft memorandum to the Mayor and assembly. Mr. Mitchell asked that the record reflect that he had a potential conflict of interest and would refrain from discussing item 2. Mr. Mitchell asked that the report include reference to JRES/JCAP goals. With that change, **Mr. Benke moved to accept the draft. The motion passed without objection.**

VI. Commissioner Comments

- A. Mr. Mitchell noted that a bill addressing the C-PACE program would give Alaska one of the most progressive enabling statutes in the nation (if signed by the governor). No appropriations were included but there are provisions for funding.
- B. Chair Keiser said she intended to meet with city staff (while on a personal trip to Whitehorse) to discuss solid waste management/planning.
- C. Mr. Powell said the Climate Change report will be released to the public soon and that he would appreciate JCOS feedback on the report.

VII. ADJOURNMENT

The meeting adjourned at 12:40 pm.

Submitted by David Teal, acting for Danielle Meeker



Office of the City Manager

155 S. Seward Street

Juneau, Alaska 99801

PHONE: (907) 586-5240

FAX: (907) 586-5385

Rorie.watt@juneau.org

DATE: July 6, 2022

TO: Juneau Commission on Sustainability

FROM: Rorie Watt, City Manager 

RE: Staff Liaison Assignment

The Assembly created the Juneau Commission on Sustainability (JCOS) in 2007 in Resolution 2718 and reestablished JCOS in 2016 by Resolution 2755.

The City and Borough of Juneau (CBJ) appreciates the hard work that (JCOS) does to promote the economic, social, and environmental well-being of the community now and for the long term. During most of its history, the staff liaison to JCOS has been a member of the CBJ Community Development Department (CDD). CDD was the correct department to provide that staff support, especially while JCOS assisted with the creation of various plans that address sustainability goals. More recently, many of the projects of most interest to JCOS are implemented by the Engineering & Public Works Department. Therefore, it is a good time to transition the staff liaison role to that department. CDD, like all CBJ Departments, can continue to be called to assist in JCOS related projects.

In accordance with the Rules of Procedure for Assembly Advisory Boards (Res. 2686), I am providing this memo outlining the duties of the staff liaison assignment. The role of the staff liaison is to:

1. Serve as a link between JCOS and CBJ staff of various departments. JCOS shall direct inquiries to CBJ staff through the liaison. JCOS is not to direct the work of CBJ staff. The liaison shall work to provide information requested by JCOS in a timely manner.
2. Serve as the link between JCOS and the Assembly. For example, the staff liaison may provide an update to the Public Works and Facilities Committee or other Assembly committees, as necessary.
3. Support JCOS meetings including coordinating packet preparation, lining up CBJ staff presenters (when warranted), working with the Municipal Clerk to schedule and public notice meetings and associated materials, and ensuring the JCOS website is updated. JCOS will be responsible for items such as establishing meeting agendas, taking minutes, and drafting their annual report.

Attachments:

Resolution Reestablishing the Juneau Commission on Sustainability, and Repealing Resolution 2718, Res. 2755

Resolution Repealing Resolution 2662 and Reestablishing the Rules of Procedure for Assembly Advisory Boards, Res. 2686

Presented by: The Manager
Introduced: 05/02/2016
Drafted by: A. G. Mead

RESOLUTION OF THE CITY AND BOROUGH OF JUNEAU, ALASKA

Serial No. 2755

A Resolution Reestablishing the Juneau Commission on Sustainability, and Repealing Resolution 2718.

WHEREAS, the City and Borough of Juneau is committed to a sustainable future that meets today's needs without compromising the ability of future generations to do the same, and that:

- Supports a stable, diverse, and equitable economy;
- Protects the quality of the air, water, land and other natural resources;
- Conserves native vegetation, fish, wildlife habitat, and ecosystems;
- Minimizes human impacts on local and worldwide ecosystems; and
- Minimizes energy usage and the release of greenhouse gases; and

WHEREAS, the CBJ Comprehensive Plan provides that it is the policy of the CBJ to build a sustainable community that endures over generations and that is sufficiently far-seeing and flexible to maintain the vital and robust nature of its economic, social, and environmental support systems; and

WHEREAS, communities throughout the nation, both large and small, have promoted sustainability through focusing on such issues as reducing dependence on fossil fuels; promoting fuel-efficient technologies; investing in the local economy for the long-term; adopting and enforcing land-use policies that reduce sprawl, promote infill, preserve open space, and create compact, walkable urban communities; promoting transportation options such as bicycle trails, incentives for car pooling and public transit; making energy efficiency a priority through building code improvements, retrofitting municipal facilities with energy efficient technologies, and urging employees to conserve energy and save money; practicing and promoting sustainable building practices; increasing the fuel efficiency of municipal fleet vehicles and reducing the number of vehicles; increasing recycling rates in municipal operations and in the community; and educating the public, business, and government about sustainability; and

WHEREAS, by Resolution 2397(b), the CBJ joined the International Council for Local Environmental Initiatives (ICLEI) and committed itself to complete the five milestones of the Cities for Climate Protection Campaign to reduce greenhouse gas and air pollution emissions; and

WHEREAS, the Assembly finds that it is in the public interest to create a panel to research and advise the Assembly on community sustainability, including but not limited to the items listed above; and

WHEREAS, the Juneau Commission on Sustainability has requested that the Assembly revise the Commission's governing legislation to specify that the Planning Commission and Assembly members be non-voting members and not be counted in determining whether a quorum of the Commission is present.

NOW, THEREFORE, BE IT RESOLVED BY THE ASSEMBLY OF THE CITY AND BOROUGH OF JUNEAU, ALASKA:

Section 1. Establishment. There is established a Juneau Commission on Sustainability.

Section 2. Composition. The Commission shall be comprised of nine members appointed by the Assembly, plus one liaison from the Assembly and one from the Planning Commission. The liaisons shall not have the power to vote and shall not be counted in determining whether a quorum of the Commission is present. Commission membership shall reflect environmental, social, economic and governmental perspectives, unified by the common interest of sustainability. Commission members serving three year staggered terms at the time of adoption of this resolution shall serve out their terms.

Section 3. Duration. The Commission shall have an indefinite duration.

Section 4. Public policy and purpose. A sustainable community seeks to advance the economic social, environmental and governmental well-being of the community without compromising the quality of life of future generations. The mission of the CBJ Commission on Sustainability is to promote the economic, social, environmental, and governmental well-being of Juneau and all its inhabitants, now and in the future.

Section 5. Powers and Duties.

1. To coordinate, propose, and promote sustainability initiatives among residents, businesses, government, and non-governmental agencies and educational organizations through education and outreach programs.

2. To make recommendations to the Juneau Assembly and CBJ Boards and Commissions on policies and programs that promote sustainability.

3. To research and apply for grants or other funds or gifts from public or private agencies for the purpose of carrying out any of the provisions or purposes of this resolution.

4. To serve as an advisory group to the CBJ in reducing greenhouse gas emissions to target levels as adopted by the CBJ Assembly.

5. To act as liaison between the public and the CBJ Assembly on sustainability related issues.

Section 6. Staff Liaison. The Manager shall designate a staff liaison to the Commission.

Section 7. Procedure. The Commission shall operate pursuant to the CBJ Advisory Board Rules of Procedure as they may be amended from time to time.

Section 8. Repeal. Resolution 2718 is repealed.

Section 9. Effective Date. This resolution shall be effective immediately upon adoption.

Adopted this 2nd day of May, 2016.



Kendell D. Koelsch, Mayor

Attest:


for Laurie J. Sica, Municipal Clerk

Presented by: The Manager
Introduced: 06/09/2014
Drafted by: A. G. Mead

RESOLUTION OF THE CITY AND BOROUGH OF JUNEAU, ALASKA

Serial No. 2686

A Resolution Repealing Resolution 2662 and Reestablishing the Rules of Procedure for Assembly Advisory Boards.

WHEREAS, citizen advisory boards are an important community resource for the Assembly; and

WHEREAS, "Advisory Board" is a general term and includes those boards, commissions, and committees that only have the authority to advise or make recommendations to the Assembly, but that do not have the authority to establish policies or make decisions for the Assembly; and

WHEREAS, it is necessary for the orderly conduct of board business that policies and rules of procedure are adopted.

NOW, THEREFORE, BE IT RESOLVED BY THE ASSEMBLY OF THE CITY AND BOROUGH OF JUNEAU, ALASKA:

SECTION 1. RULES OF PROCEDURE. The following rules of procedure are adopted:

Rule 1. Membership.

A. Residence. Members of Boards, Commissions or Committees shall be residents of the City and Borough of Juneau with special consideration to be made in certain instances to provide for necessary expertise as the need arises.

B. Non-discrimination. Unless otherwise required by federal or state programs, nominations to boards, commissions, or committees shall be made with due regard to talent, interest or requirements of code or ordinance, and without regard to race, creed, color, age, religion, national origin, sex, marital status, political ideology, sexual orientation, or sensory, mental or physical handicap.

C. Diversity. Committee appointments shall reflect a membership appropriate for accomplishing the goals of the committee, and should include cultural, social, political, technical and economic viewpoints sufficient to ensure wide-ranging and active debate.

D. Board Vacancies. Candidates for nomination to vacancies on advisory boards shall be solicited from residents through appropriate public announcement of vacancies. Vacancies shall be announced for a period of at least ten days between the public announcement of a vacancy and the date on which nominations take place, unless the Assembly has determined that a lesser time is appropriate under the circumstances of a particular appointment. During such periods, residents may convey recommendations of candidates for nomination to vacancies to members of the Assembly or the Clerk's office.

1. Definitions:

a. "Advisory Board" is a general term and includes those bodies entitled "board," "committee," "commission," "council," or the like, and comprise a governmental body of the City and Borough of Juneau having authority only to advise the Assembly rather than to establish policies or make decisions for the Assembly.

b. "Vacancies" include vacancies in positions which have never been filled; vacancies caused by the vacation of a position by an incumbent for any reason prior to expiration of term of office; and vacancies which will occur at the expiration of an incumbent's term whether or not the incumbent has signified a desire to succeed himself or herself.

c. A vacancy on a City and Borough advisory board shall exist under the following conditions:

- (i) If a person appointed to membership fails to qualify and take office within 30 days of appointment;
- (ii) If a member departs from the City and Borough with the intent to remain away for a period of 90 or more days;
- (iii) If a member submits his or her resignation to the Assembly;
- (iv) If a member is physically unable to attend board meetings for a period of more than 90 days; or
- (v) If a member misses more than 40 percent of the board meetings in a 12-month period.

The chair of the advisory board shall notify the Clerk's office of any vacancy on the board. Upon notification, the Clerk shall follow the procedures for filling vacancies as outlined in this section.

Rule 2. Appointment Process.

A. Applications. All new applications are kept on file with the Municipal Clerk's office for one year. In the event a vacancy occurs in the interim, the applicants will be contacted by the Clerk's office to determine if the applicant would like his or her application submitted for the vacant seat. Applications, except those of appointed board members, are purged after the one-year period has expired and applicants will need to reapply for future vacancies.

B. Reappointment Of Committee Members. Incumbent committee members may seek reappointment at the end of their term of office. Incumbent members will need to submit new applications to be considered in the same manner as all other applications. Factors considered in re-appointing incumbents are the enthusiasm of the individual, need for continuity, and the attendance record of the individual. Appointments and reappointments are based on merit, and incumbent members are not automatically reappointed.

C. Terms. Members of advisory boards shall be appointed for a term of three years unless otherwise specified in their governing legislation. The Assembly shall endeavor to make appointments during the month in which the terms expire, provided that a board member shall continue to serve until a successor is appointed and takes office. Appointments to fill vacancies shall be for the unexpired term. In the event a seat has 6 months or less remaining to the unexpired term, the Assembly, at its discretion, may choose to appoint the member to the remainder of the current term as well as to the full term immediately following the expiration date of the unexpired term. The members of the boards who are serving at the time of adoption of this resolution shall continue to serve the duration of their terms of office.

Rule 3. Officers. Officers of each board shall consist of a Chairperson, Secretary, Treasurer, and any other officers as the board may from time to time deem necessary. Officers shall be elected at the first regular meeting after which the regular annual appointments of board members are made by the Assembly. Each officer shall serve for a one-year term or until such time as offices become vacant. The advisory board shall elect one of its members as a Secretary to record, keep, and file with the Clerk minutes of all committee meetings.

Rule 4. Staff Liaisons. The Manager may appoint a staff member or members as appropriate or as requested by the Assembly to serve as a liaison to an advisory board. The Manager, at the time of appointment, will provide the staff liaison with a memo outlining the duties of the assignment. The role of the staff liaison is to serve as a link between the board and the City's departmental staff and the Assembly. Boards shall not direct the work of staff liaisons in their advisory role to the Assembly. Liaisons shall not have the power to vote on the board or commission, and are not to be counted in determining whether a quorum of the board or commission is present.

Rule 5. Ad-Hoc Committees/Task Forces. Ad-Hoc Committees shall be appointed by the Mayor to develop recommendations on a single issue. The appointment of members shall be accompanied by a memorandum outlining the committee's charge, defining the deliverables, and giving the sunset date of no more than two years from the date of appointment.

Rule 6. Reports. Advisory Boards shall report to the Assembly at least annually. Reports to the Assembly shall be approved by a majority vote of the board. Minority reports may accompany the report approved by the Majority. Each board shall submit to the Assembly a brief annual report setting forth the activities and accomplishments of the committee and the attendance record of each committee member during the preceding twelve months. The Assembly will strive to review each board's annual report at the same time it takes up the annual appointments of members. A representative of the board should be present at any Assembly or Assembly committee meeting at which the report is to be considered.

Rule 7. Evaluation. The Assembly may periodically evaluate each advisory board. Such evaluation shall consider the board's mandate, its goals and objectives, its success at reaching its goals and objectives, its activities, the extent to which it has attracted citizen participation, and suggestions for methods of improving the disposition of board business. A report of the evaluation shall be made and returned to the advisory board and shall include recommendations for future functions of the board.

Rule 8. Removal. Unless otherwise specifically provided, members of boards, committees and commissions which are created by non-code ordinances, resolutions or motion and are appointed by the assembly serve at the pleasure of the assembly and may be removed at any time by an affirmative vote of six members of the assembly.

Rule 9. Procedure. Advisory committee procedure shall be governed by Robert's Rules of Order except where superseded by the Assembly Rules of Procedure, as such may be amended from time to time.

SECTION 2. REPEAL OF RESOLUTION. Resolution 2662 is hereby repealed.

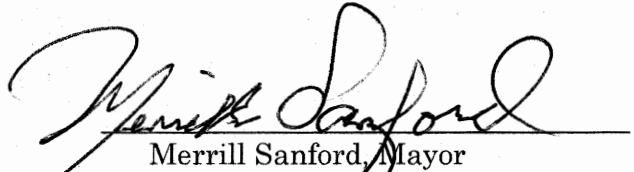
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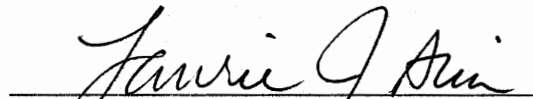
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SECTION 3. EFFECTIVE DATE. This resolution shall be effective immediately upon adoption.

Adopted this 9th day of June, 2014.


Merrill Sanford, Mayor

Attest:


Laurie J. Sica, Municipal Clerk

JCOS 2022 Operations Update

Jul-22

Goal 1 Energy Committee

	Title	Start	Finish	Owner	Status	Percent Complete	Notes
1.1	2022 RAISE Grant (dock electrification)	Jan	Apr	Behnke	Appl submitted by D&H in April	100%	
1.2	Energy Pathways Analysis	Jan	FY23	Behnke	E&PW negotiating contract w/Dynamhex	20%	w/Eng & PW Dept
1.3	Increase JCOS role in grant applications	Jan	Apr	Behnke	Feb: Request placed before assembly	50%	
1.4	Promote EV adoption	Jan	Dec	Behnke			
1.5	CBJ facilities: energy upgrades	Jan		Behnke		10%	Facilities Maintenance; E&PW
1.6	Promote CBJ Energy Policy and Practice	Jan		Behnke		20%	focus on procurement process & capital projects analysis
1.7	Educate Assembly on C-Pace financing	Jan		Behnke		10%	
1.8	Promote Downtown Electric Bus Circulator	Jan		Behnke		30%	MPF-funded study

Goal 2: Local Resource Recovery & Local Food

	Title	Start	Finish	Owner	Status	Percent Complete	Notes
2.1	Zero Waste Planning	Apr	Dec	Keiser	Whitehorse mtg 6/22.	5%	Provide research and support to E&PW and Assembly PWFC
2.2	Research waste grant funding opportunities	Jul		Keiser			
2.3	Identify and support waste reduction/diversion projects and grant opportunities	May		Keiser	ID "placeholder" as 1% sale tax projects 5/22.	10%	
2.4	Investigate/promote use of public land for local agriculture and resource recovery sites				On hold w/o Chair		

Goal 3: Outreach

	Title	Start	Finish	Owner	Status	Percent Complete	Notes
3.1	AARP-JCOS Webinars	Mar	May	Grantham	5 of 5	100%	
3.2	Rollout Juneau Climate Impacts report	Mar	Sept	Powell	Report to City Mgr 7/22		with UAS, UAF & City Manager
3.3	JCOS and Sustainability presentations				On hold w/o Chair		focus on economic benefits
3.4	Provide talking points on CBJ successes, ongoing efforts and need for citizen support						to mayor and city manager
3.5	Participate in Alaska Municipal Climate network	Jan	Dec	Keiser / Behnke	Ongoing; talk w/Sitka advocate re JCOS 5/22.		~ Qtrly meetings.
3.6	Sustainability Awards	July	Dec	Powell			Assembly HR

Goal 4: Climate Impacts / Sustainability Indicators

	Title	Start	Finish	Owner	Status	Percent Complete	Notes
4.1	Promote sustainability indicators/metrics in Comprehensive Plan Review (FY23 funding)			Powell			

Goal 5:Sustainability Coordinator position at CBJ

	Title	Start	Finish	Owner	Status	Percent Complete	Notes
5.1	Review "Energy Mgr" recommendation in JRES. Is it still relevant to current needs?	2nd Quarter		Keiser			
5.2	Research job descriptions and benefits in other municipalities	2nd Quarter		Keiser	Mar: obtained examples from MOA	5%	resources: national Sus.Directors org, target similiar-sized munis
5.3	Develop working job description						
5.4	Promote concept to city manager and assembly						

file: JCOS Goal Tracking 2022



TO: Gretchen Keiser, Chair Juneau Commission on Sustainability
FROM: Nate Abbott, Building Maintenance Supervisor, Parks and Recreation Department
DATE: June 29, 2022
RE: EMIS Status Update

On December 4th 2021 the Assembly adopted new goals; several of these goals had energy reduction and sustainability components to them. Facilities Maintenance, in collaboration with the Public Works Engineering Division and the Finance Department, has been working to implement an Energy Management and Information System (EMIS) to help achieve these goals. EMIS is a broad family of software tools that monitor, analyze, and control building energy use and system performance. Implementing an EMIS for CBJ will help reduce energy usage, greenhouse gas emissions, and costs. On average Better Buildings, an initiative of the U.S Department of Energy, reports that organizations that implement a basic EMIS can realize 2.4% in energy savings. For CBJ buildings, this could equate to over \$75,000 in annual energy savings, or another way to look at it is the potential to save 22,481 gallons of fuel and 791,000 kwh in electricity.

Facilities Maintenance is currently using an EMIS called Energy Star Portfolio Manager to track energy usage. This is a free software supported by the Federal Government. Energy Star Portfolio Manager provides some basic tools to track usage in facilities and compare usage to other like facilities. Entering in historical and current energy usage allows staff to easily identify and research changes in usage. For example, at the Downtown Library we realized that a significant decrease in usage coincided with the installation of a new building control system. At the Glacier Fire Station the information was used to identify a significant increase in the facilities energy use which prompted an investigation into the operations and maintenance practices to identify the source of the increase. CBJ has energy usage data entered from 2015 to present day for 32 facilities.

Ongoing plans include the purchase of a purpose built EMIS system to use for tracking usage in CBJ Facilities. Energy Star Portfolio Manager is a great program and it is free but it lacks a lot of functionality and features that will help make an EMIS sustainable. We spent the first part of 2022 developing a list of needed features in an EMIS solution and demoing software with the goal of selecting a long-term software solution to be implemented in the first quarter of FY23. We have selected Brightly's Energy Manager as the software of choice and are currently working through the CBJ procurement process. One of the main reasons that we selected Brightly is because the Juneau School District is already using the software, using the same software will allow us to collaborate and present information in the same format to key stakeholders. In our first year of using Brightly we plan to track energy usage in 60 Facilities and automate 62 utility bill accounts. The facilities we plan to track include General Government, Juneau International Airport, and Bartlett Regional Hospital.

Now that a software has been selected we will work with Brightly and other CBJ Divisions to develop and implement a process to insure energy information is entered into the EMIS and reviewed on a regular basis. The long-term success of any EMIS hinges on the consistent and timely input and review of energy data. Implementing an EMIS is an important component of a city wide energy management program that will help us be more energy efficient in the operations and maintenance of our facilities.

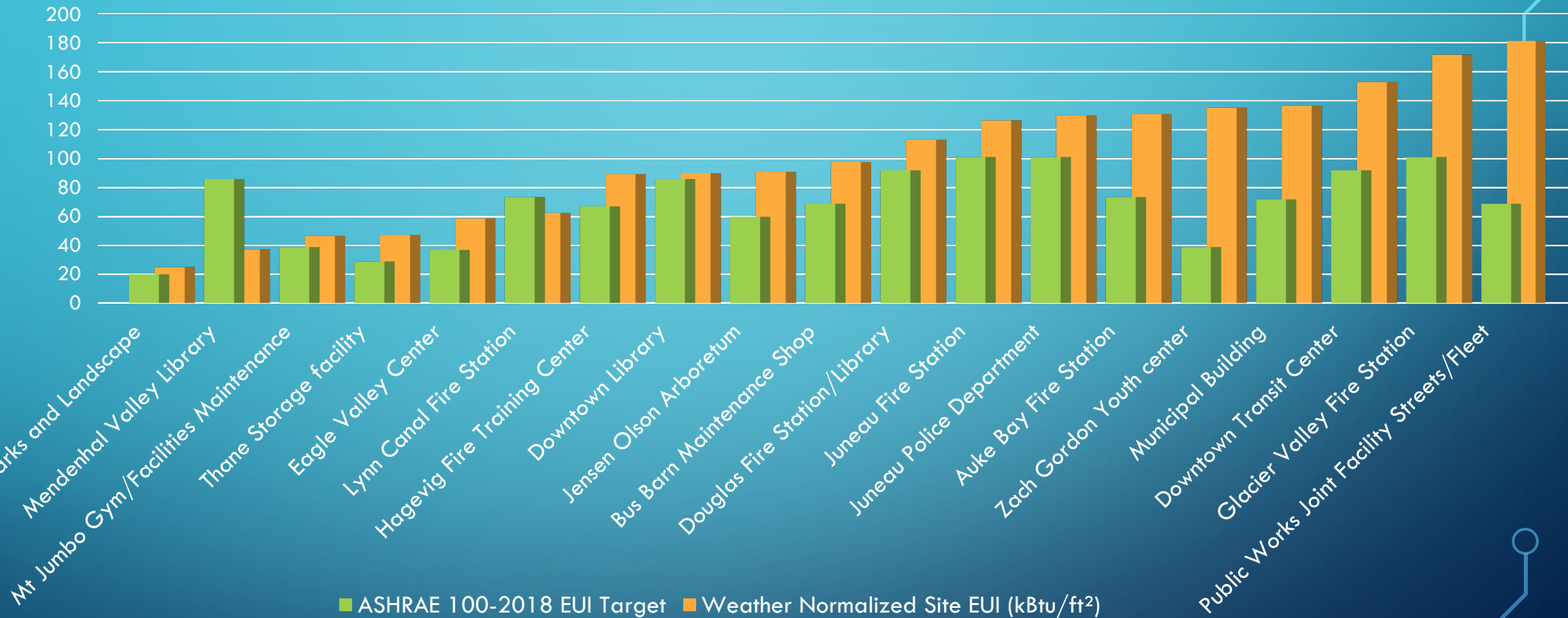
A decorative graphic on the left side of the slide, consisting of a network of white lines and small circles on a blue gradient background, resembling a circuit board or a stylized tree structure.

CBJ ENERGY USE AND MANAGEMENT

IMPORTANT TERMS

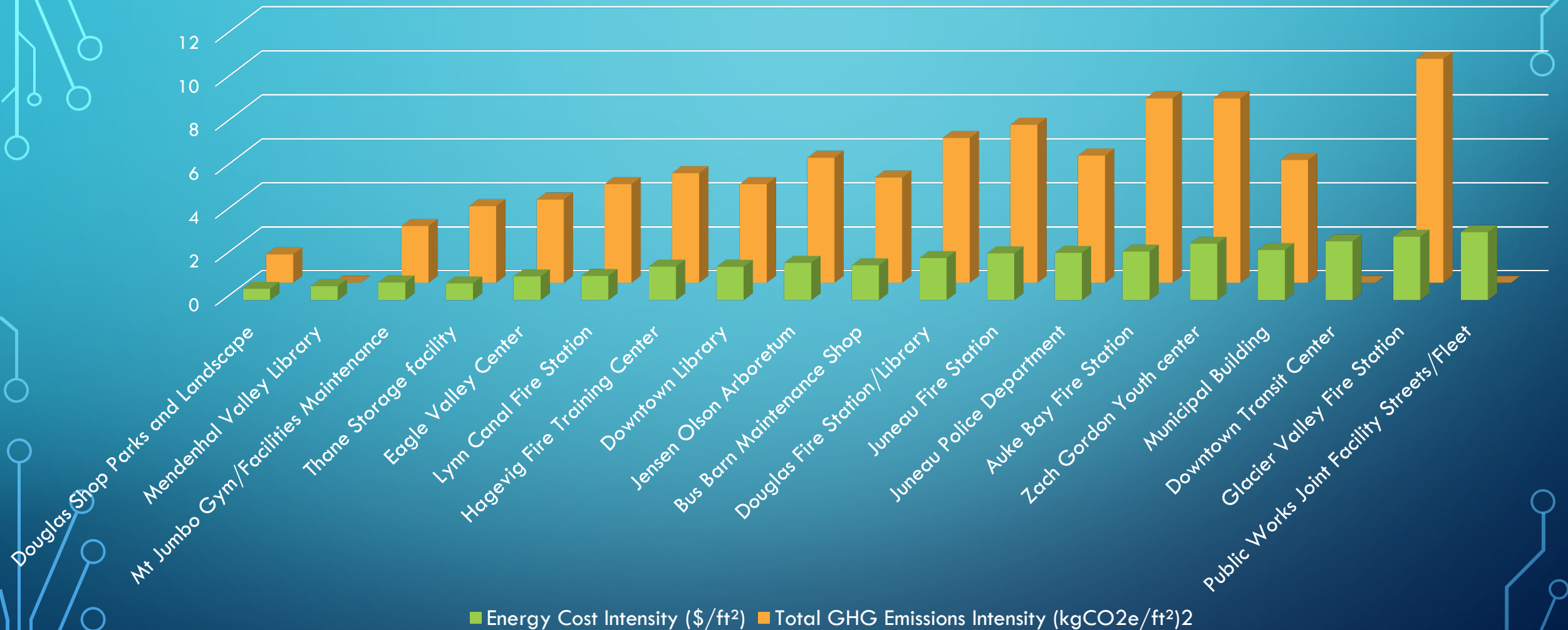
- Energy use intensity (EUI) = Energy use per square foot per year in 1000 Btu's (industry standard on measuring energy usage)
- Energy Cost Intensity= energy cost per square foot per year
- Green House Gas Emission Intensity= KgCO₂e per square foot per year
- Target energy use intensity (Target EUI)= Target energy use per square foot per year in 1000 btu's as defined by ASHRAE Standard 100-2018 Energy Efficiency in Existing Buildings.

Weather Normalized Site EUI VS Target EUI



- ASHRAE 100-2018 sets EUI targets for facilities adjusted for climate zone and operating hours

Energy Cost Intensity and GHG Emission Intensity



- Some facilities have no GHG emissions due to being all electric

Downtown Library

Baseline: [N/A](#)

Summary

Details

Energy

Water

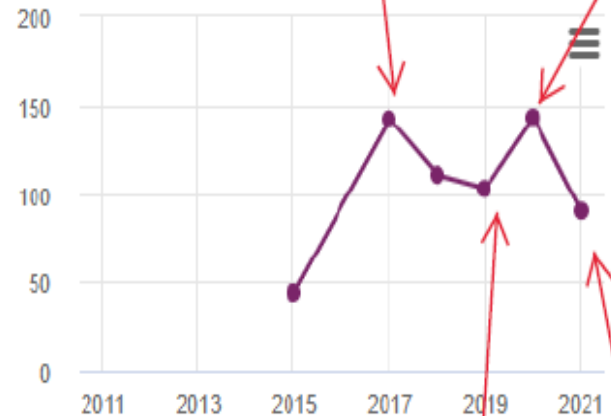
Waste & Materials

Goals

Design

Weather Normalized Site EUI Trend (kBtu/ft²)

[Change Metric](#)



(Chart current as of 02/02/2022
09:49 AM GMT-0900)

[Refresh Chart](#)

LED Lighting
completed

Controls upgrade
completed

Pandemic 100%
outside air

Outside air
dampers
malfunction

EUI reduction
attributed to
controls and LED
upgrades

Metrics Summary

Metric	Dec 2018 (Other)	Dec 2021 (Other)	Change
ENERGY STAR Score (1-100)	Not Available	Not Available	N/A
Site EUI (kBtu/ft ²)	110.7	90.1	-20.60 (-18.60%)
Weather Normalized Site EUI (kBtu/ft ²)	110.7	90.1	-20.60 (-18.60%)
Energy Cost (\$)	35,780.63	27,679.16	-8101.47 (-22.60%)
Total GHG Emissions Intensity (kgCO ₂ e/ft ²)	5.0	4.5	-0.50 (-10.00%)
Total GHG Emissions (Metric Tons CO ₂ e)	90.8	82.0	-8.80 (-9.70%)

Green house gas
reduction attributed
to controls upgrade

Example of project verification

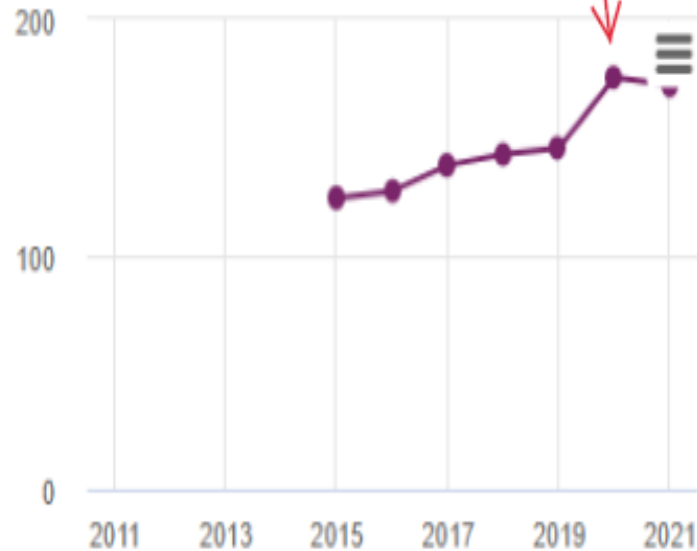
- Estimated 17 point reduction in EUI
- Estimated \$12,100 annual reduction in energy costs
- Estimated \$166,700 in life cycle cost savings.
- Estimated actual reduction 20 points EUI
- Estimate actual annual savings of \$8,000

GLACIER FIRE STATION

Sharp rise in EUI from 1 year to the next

Weather Normalized Site EUI Trend (kBtu/ft²)

[Change Metric](#)



(Chart current as of 02/08/2022
11:49 AM GMT-0900)

[Refresh Chart](#)

[Change Metrics](#)

[Change Time Periods](#)

Metrics Summary

Metric	Dec 2018 (Other)	Dec 2021 (Energy Current)	Change ?
ENERGY STAR Score (1-100)	Not Available	Not Available	N/A
Site EUI (kBtu/ft ²)	138.0	172.5	34.50 (25.00%)
Weather Normalized Site EUI (kBtu/ft ²)	142.5	171.8	29.30 (20.60%)
Energy Cost (\$)	43,594.22	52,662.24	9068.02 (20.80%)
Total GHG Emissions Intensity (kgCO ₂ e/ft ²)	8.0	10.2	2.20 (27.50%)
Total GHG Emissions (Metric Tons CO ₂ e)	143.8	184.1	40.30 (28.00%)

GHG increased almost 30% compared to 2018 indicating that increase in EUI is due to heating source

Example of why tracking is important

- Sharp rise in EUI from 2019-2020
- Sharp rise can be attributed to heating this is indicated by the increase in GHG intensity
- Rise was investigated and found to be related to operations and boiler setting
- Need continue to track to verify results