

Juneau Sustainability Indicators

Some history and steps forward

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Presentation

- **Big picture and definitions**
- **Sustainability frameworks and approach**
- **Some history**
- **CBJ Current policy**
- **Draft CBJ Sustainability Indicators (2008)**
- **Choosing indicators**
- **Whitehorse Sustainability Indicators**

Effective Community Governance Model



What was counted was what counted

(Cohen 1982)

Indicators - measures of single areas or issues such as economic, environmental, or social issues.

Sustainability Indicators - Evolved from single issues indicators for measuring multiple areas, are integrative and are generated from stakeholders.

Terms and Definitions

Community Sustainability Indicators

They are distinguishable from simple environmental, economic, or social indicators by the fact that they are *integrative* and *developed with input from multiple stakeholders in the community*

(Maclaren 1996)

Indicators - An information based decision tool

- Indicators are information and information is intended to inform decisions and decisions are choices among possible actions.
- Indicators are not an end unto themselves. A good indicator project only occurs within a good community improvement process
- Most of us use information to affirm what we already know -- missing the value of information (knowing vs. learning)

Sustainability implies a systems theory as overarching approach

Includes components and interactions that need to be understood (INTERDEPENDENCY)

Slow and fast moving variables

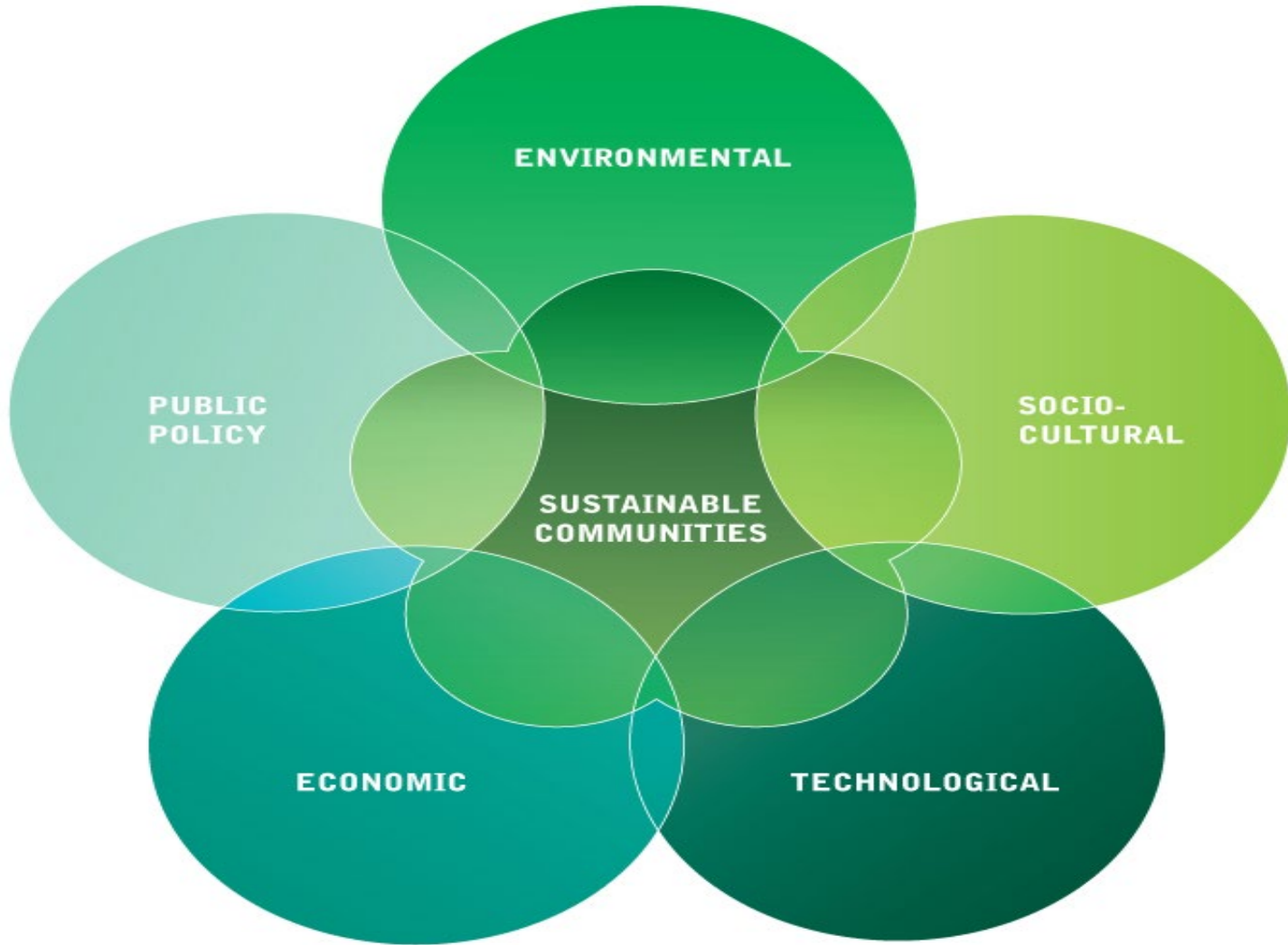
Convenient unit of analysis is a community

Sustainability concept assumes a systems approach and is:

- Contextual, and empirical
 - Long –term
 - Integrative / Interdependent
- It has always been used in an interdisciplinary context

EcoSTEP

THE FIVE DOMAINS OF SUSTAINABILITY



Sustainability Framework & Measurement

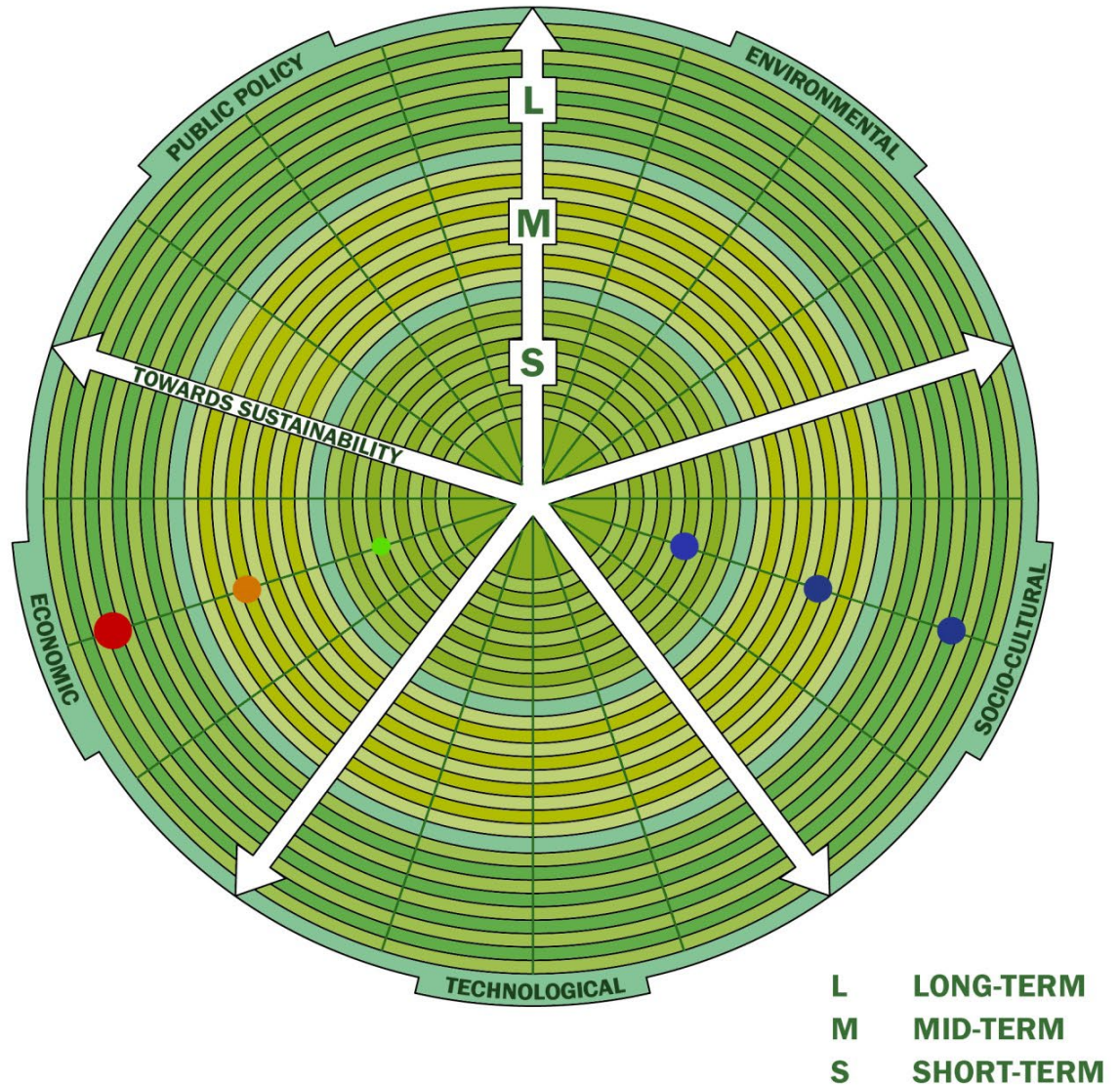
Five domains – Economic, Ecological, Social, Public Policy, Technology

Four Capitals –

- Natural – non-renewable resources
- Built – physical – tools, clothing, shelter
- Human – capacity of individual to accomplish goals
- Social – capacity of people to collectively solve problems

EcoSTEP

Developed as the primary graphic tool used in Sustainaometrics based on the five domain Theory



Juneau Sustainability activities

1992

UN Earth Summit

1994

Comp. Plan Sustainability Chapter & draft SIs

- Climate Change report
- Commission on Sustainability
- Res. 2397 – ICLEI
- Member of Cities for Climate Protection Campaign

2007

2008

- Sustainability fund established
- Comp . Plan updated - directs staff *to develop, implement, monitor Sustainability Indicators*

2010

GHG Inventory Completed

2012

Climate Action & Implementation Plan

2018

Renewable Energy Strategy

CBJ Policy

Comprehensive Plan Chp. 2 - Sustainability

POLICY 2.1. To build a sustainable community that endures over generations and is sufficiently far-seeing and flexible to maintain the vital and robust nature of its economic, social, and environmental support systems.

Implementing Actions 2.1 - IA1 Support the CBJ Commission on Sustainability in completing its mission and tasks to:

- A. **Provide ongoing development of sustainability indicators and measures; and,**
- B. Periodically review the indicators and measures to confirm their currency and relevance and to track community trends.

2.1 - IA2 Incorporate the adopted sustainability indicators into the process of scoping, funding, and carrying out all proposed CBJ Capital Improvements including buildings, facilities, equipment, and components.

CBJ Comp plan – 2.2 Sustainability Indicators

Indicators show how well a system is working. Effective indicators are:

Relevant: they show you something about the system that you need to know;

Easy to understand, even by people who are not expert;

Reliable: you can trust the information that the indicator is providing;

2.2 Comprehensive Plan - Sustainability Indicators

Indicators show how well a system is working. Effective indicators are:

Relevant: they show you something about the system that you need to know;

Easy to understand, even by people who are not expert;

Reliable: you can trust the information that the indicator is providing; Based on accessible data: the information is available and reported at regular intervals.

-Indicators help a community judge progress towards its long-term goals. Over time, a community will adjust policies, programs, and collective behavior according to the trends that emerge from using indicators.

-Indicators reveal the status of large systems, helping a community focus on long-term planning.

- Developing indicators begins by selecting important, diverse, measurable categories and topics that the community will commit to measure at regular intervals.

- Indicators will be developed by the Juneau Commission on Sustainability and used by appropriate CBJ government agencies and community groups.

Appendix 8. Juneau Draft Sustainability Indicators – Framed as Five Domains

Social and Cultural

- Capacity of pre-school & classroom size
- Adult literacy rate
- Dropout rate, by ethnicity
- Average college entrance scores
- Number attending college
- Percent population in cultural arts
- Homeless housing and support
- Child care availability & costs
- Emergency services response time
- Access to health care
- Percent of healthy births & child immunizations
- Incidents of crime by type
- Number of charitable organizations, volunteer hours, and annual budgets

Environmental

- Relative sea rise and affected public and private structures
- Noise levels
- Safe water and air quality – number of violations (air and water)
- Scenic corridors for water & mountains
- Scenic corridors to harbors, historic landmarks
- Amount & location of developed coastline
- Number of fish and wildlife species
- Number of dirty water bodies
- Water quality – fresh and marine
- Number of food conditioned bear kills
- Number of acres of altered vegetation, streams, & structures w/in habitat
- Number & miles of publicly accessible trails
- Number & acreage of shoreline parks & accessible boat launch facilities

Economic

- Housing for all – vacancy rate by price
- Living wage – estimated household budget
- Percent households without medical benefits
- Percent of households paying more than 50% of gross income on shelter costs
- Job longevity
- City revenue and operating expenses
- Per capita cost of public services
- Per capita debt ratio
- Retain Alaska State Capital in Juneau
- Employment opportunity & diversity

- Private sector capital availability
- Percent of goods produced locally
- Price of nonrenewable fuels
- Academic programs matched to job market

**Public
Policy-
Related**

- Number of public gathering places downtown and neighborhoods
- Number of neighborhood associations and civic groups
- Percent of population that use public transit
- Streets with formal bike lanes
- Amount of solid waste land filled, reused and recycled material
- Police and firefighters per 1,000 population
- Staff per acre of parks & rec. facilities
- Average density of developed & vacant land within 1/4 mile of bus service

Technology

- Percent of alternative energy consumption (other than liquid fuels)
- Research, application, and education in alternative energy consumption
- Education – alternative energy, conservation, longer term planning, building tech.

Choosing indicators - the Wheat from the Chaff

Traditional approach is to consider a set of criteria

- Relevance
- Ability to affect change
- Statistical validity
- Availability of data
- Understandable to audience

Choosing indicators - Coming up with the laundry list

Consider their use (remembering the application of information – what understanding do you want to foster, what decisions do you want to check or what actions do you want to influence)

Consider the mechanism for data gathering



CITY OF WHITEHORSE SUSTAINABILITY PLAN 2015–2050





Jurisdiction

Through planning and development regulation, the City influences new development. City jurisdiction in existing built areas is low.



Approach

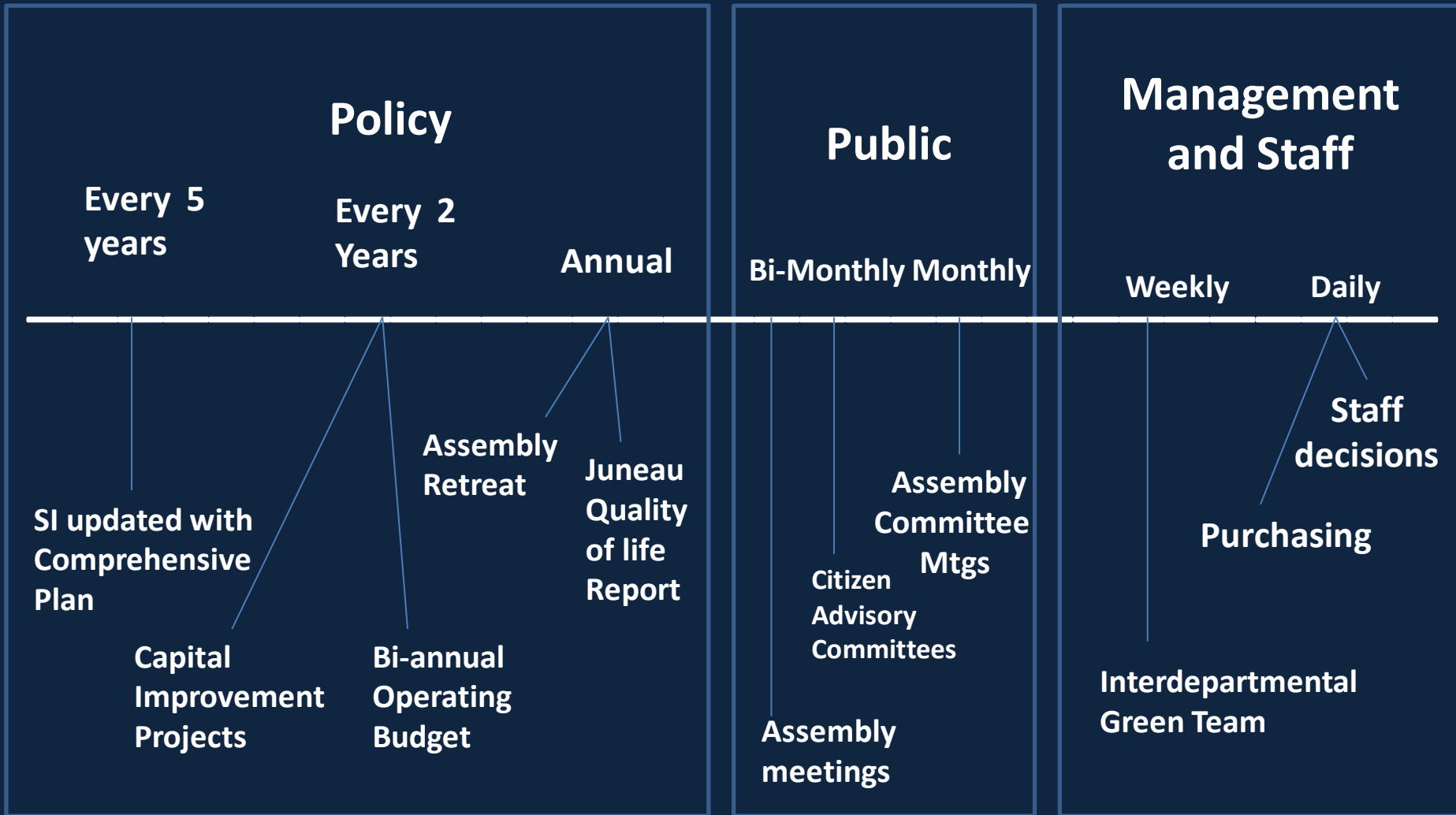
Using the strength of the Official Community Plan and zoning process, engage in community dialogue about livability, and what types of infill and redevelopment are appropriate, then apply this to planning and development regulations.

GOAL Strong Downtown and Livable Neighbourhoods

TARGET	2020	2030	2050	CITY STRATEGY
Increase livability of all neighbourhoods	Establish criteria and set targets			<ul style="list-style-type: none"> Establish livability criteria and incorporate into planning, development, and monitoring Improve transit connections to all neighbourhoods
Increase downtown population density	10%	20%	40%	<ul style="list-style-type: none"> Prepare a new Downtown and Marwell Plan Mitigate barriers presented by Second Avenue and improve linkages between downtown and waterfront Increase downtown commercial vibrancy through zoning, incentives, and innovative revitalization methods
Increase population of downtown and the neighbourhoods closest to downtown (Hillcrest, Takhini, Riverdale)	1%	1%	2%	<ul style="list-style-type: none"> Improve non-motorized linkages to key neighbourhoods Improve transit connections to key neighbourhoods Create well-integrated and innovative infill

Focus Group Results

Continuum of Community Sustainability Indicator Use



Thank you
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