Juneau Sustainability Indicators

Program

1. CBJ Direction and draft list.

2. Examples and trends from other cities

3. What might work here and process.

4. Questions and Answers.

CBJ Direction

- **It is the policy of the CBJ to develop and use sustainability indicators to measure Juneau's Progress toward becoming a more sustainable community.**

Standard Operating Procedure
2.3.SOP1   Measure CBJ capital improvements, projects, ordinances, and purchases against adopted sustainability indicators to ensure that the CBJ is moving toward a sustainable future.

- **Implementing Actions**
- 2.3.IA1 Support the CBJ Commission on Sustainability in completing its mission and tasks to
  - (A) provide ongoing development of sustainability indicators and measures;
  - (B) periodically review the indicators and measures to confirm their currency and relevance and to track the CBJ's trends; and
  - (C) 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.

- Periodically assess whether adopted sustainability indicators are measuring sustainability as intended, and amend them as necessary to improve their utility.
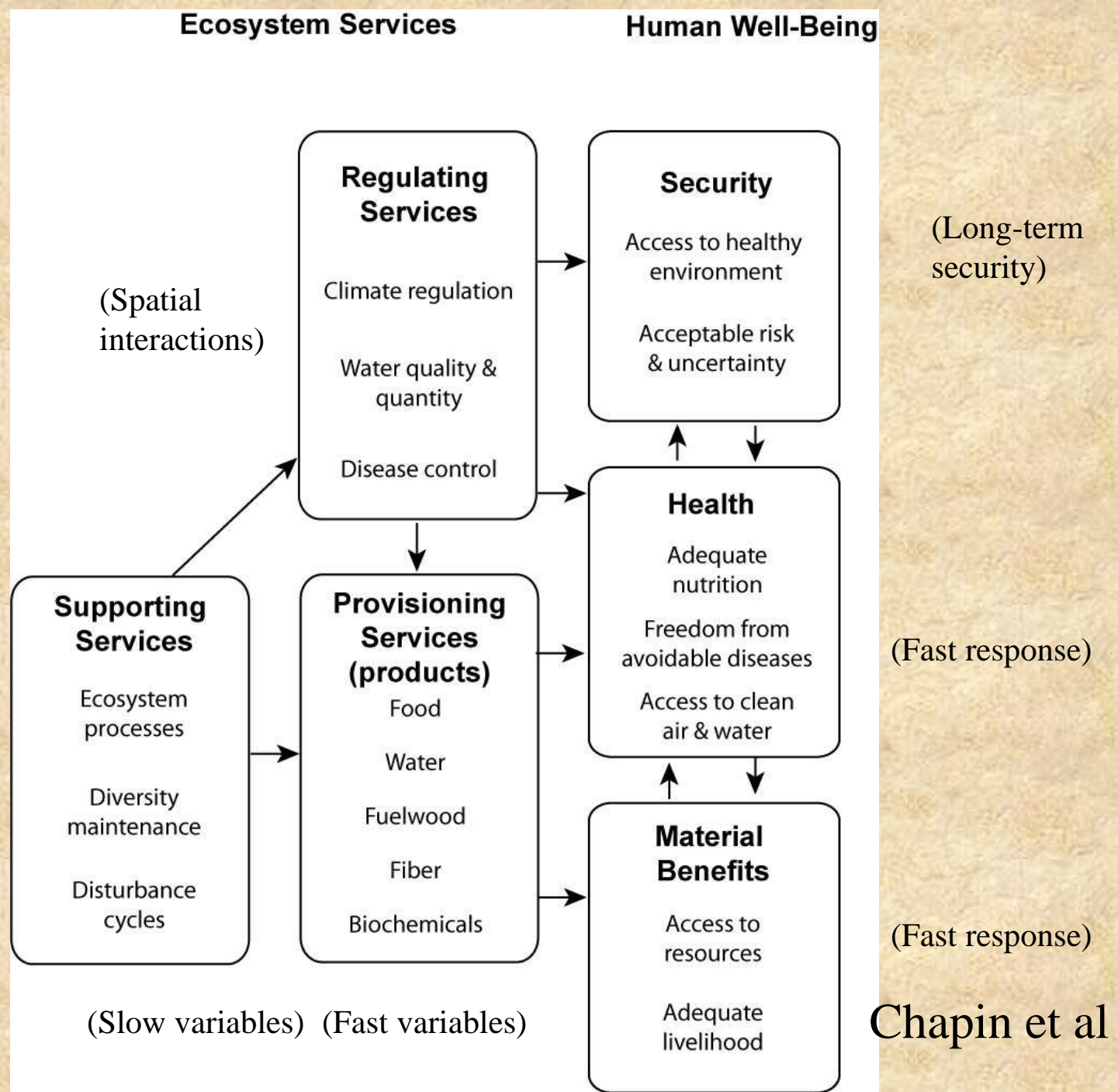
Framework assumptions

- CBJ silent on emphasis (economic over environment)

- Might want to consider reviewing

  - United Way

  - Other Social indicators.

  - Slow and fast moving indicators

  - Relationship or indicators for Climate
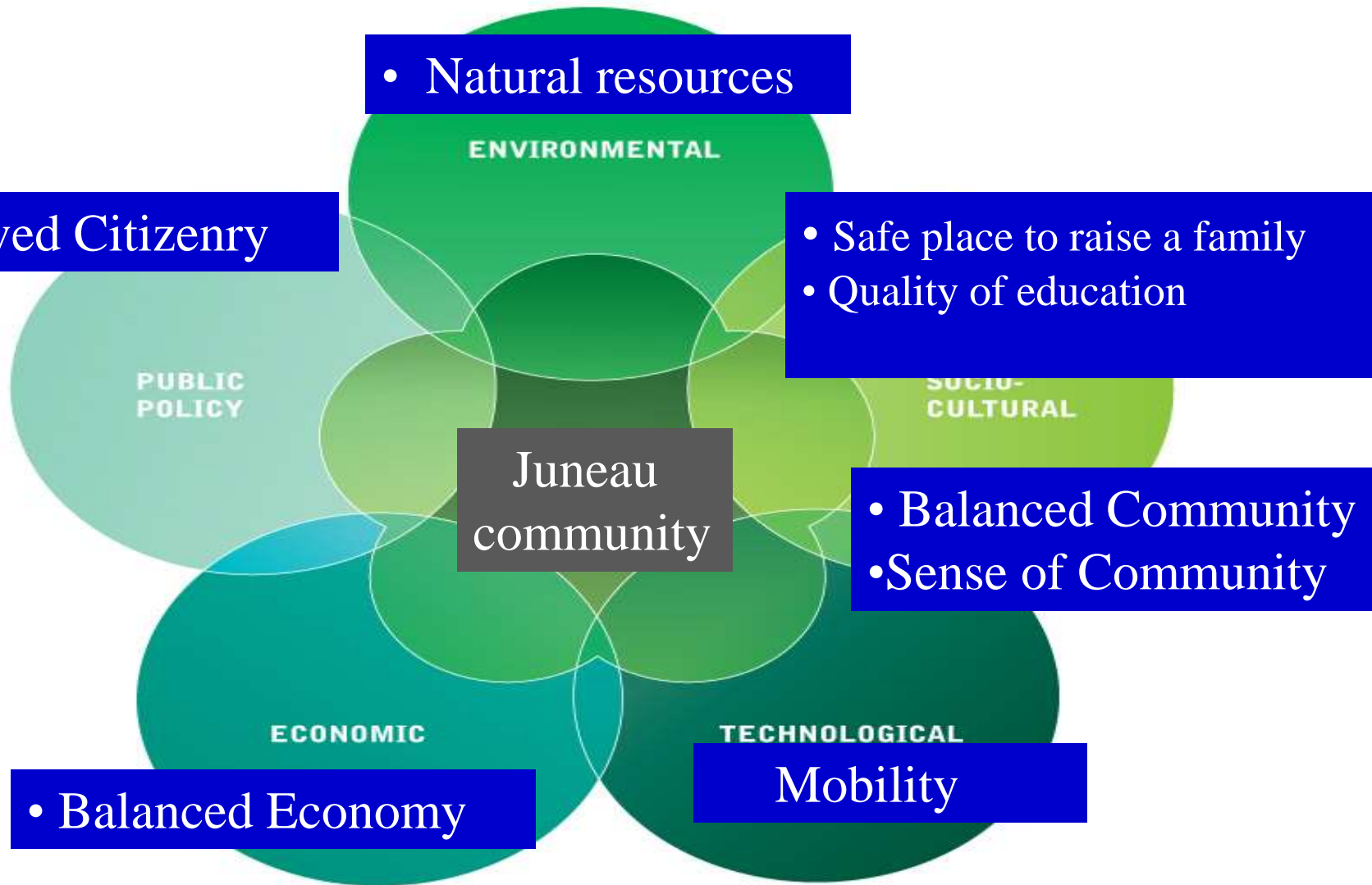
  Change

Joslyn Institute for
Sustainable Communities
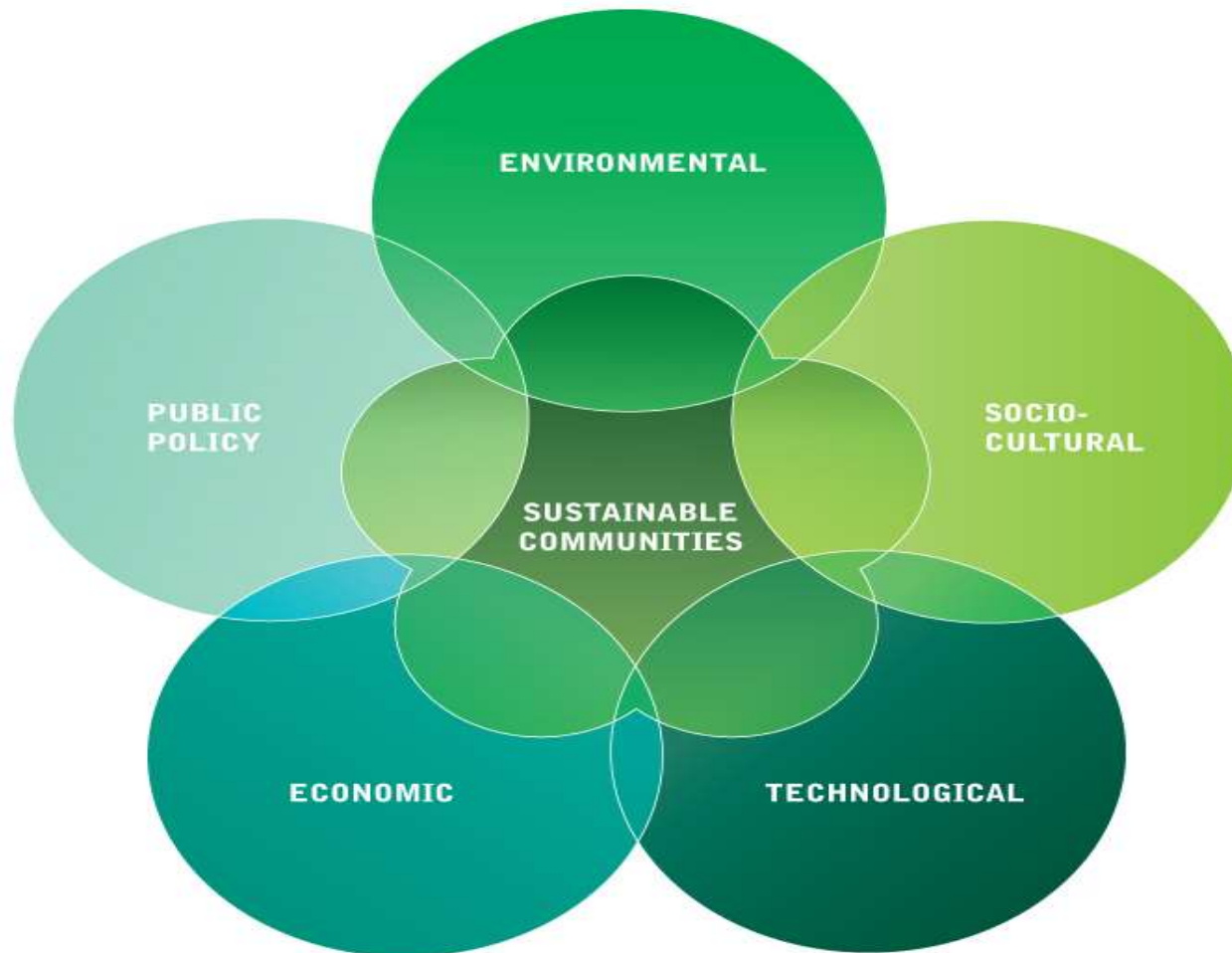
Example: Framework

Chapin et al

Sustainability

- **At least three characteristics:**

Integrative

Participatory

Long – Term

- Natural resources

ENVIRONMENTAL

- Involved Citizenry

- Safe place to raise a family
- Quality of education

PUBLIC POLICY

SOCIO-CULTURAL

Juneau community

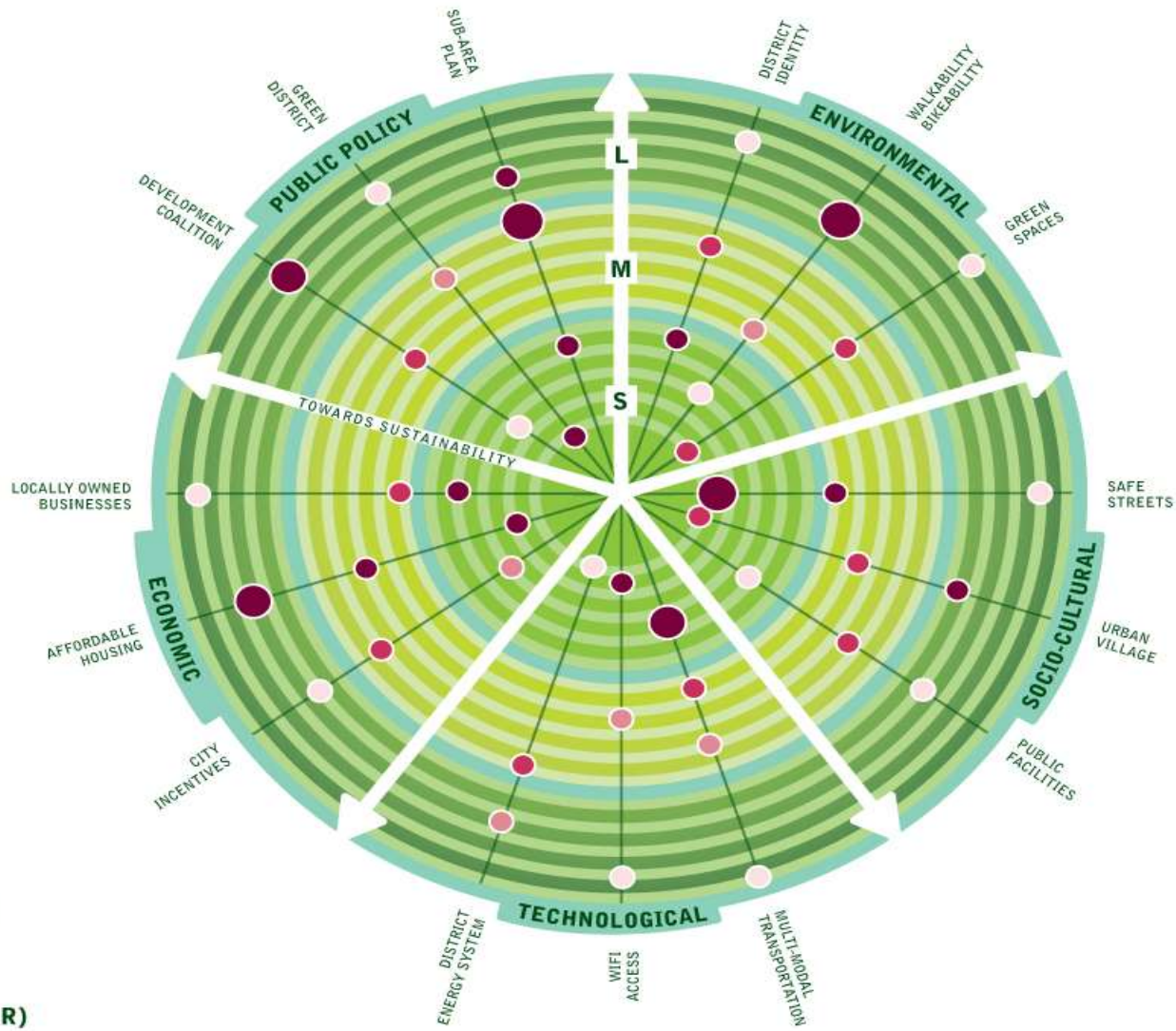- Balanced Community
- Sense of Community

ECONOMIC

TECHNOLOGICAL

- Balanced Economy
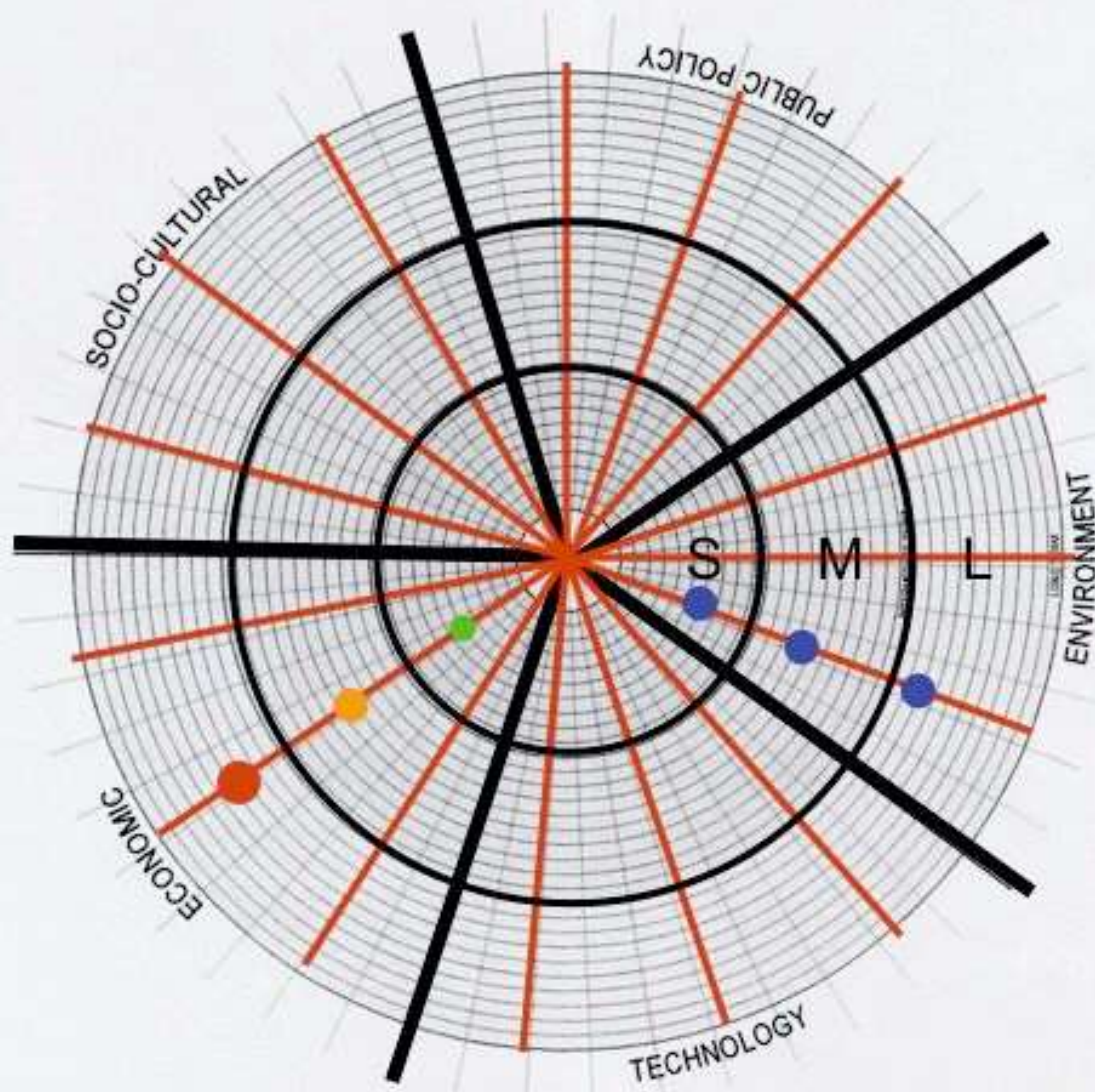
Mobility

EcoST=P
MEASURING SUSTAINABILITY

PRIORITY (SIZE)
- NORMAL
- URGENT

SEVERITY (COLOR)
- IMPROVING
- CAUTION. KEEP WATCH
- REQUIRES ACTION
- DANGEROUS

L LONG-TERM
M MID-TERM
S SHORT-TERM

PUBLIC POLICY
- GREEN DISTRICT
- SUB-AREA PLAN
- DEVELOPMENT COALITION

ENVIRONMENTAL
- DISTRICT IDENTITY
- WALKABILITY BIKEABILITY
- GREEN SPACES

SOCIO-CULTURAL
- SAFE STREETS
- URBAN VILLAGE
- PUBLIC FACILITIES

ECONOMIC
- LOCALLY OWNED BUSINESSES
- AFFORDABLE HOUSING
- CITY INCENTIVES

TECHNOLOGICAL
- ENERGY DISTRICT SYSTEM
- WIFI ACCESS
- MULTI-MODAL TRANSPORTATION

TOWARDS SUSTAINABILITY

Systems Theory

- Slow and fast moving variables
- (public focus on fast)
  - Ecological - s
  - Man made - f
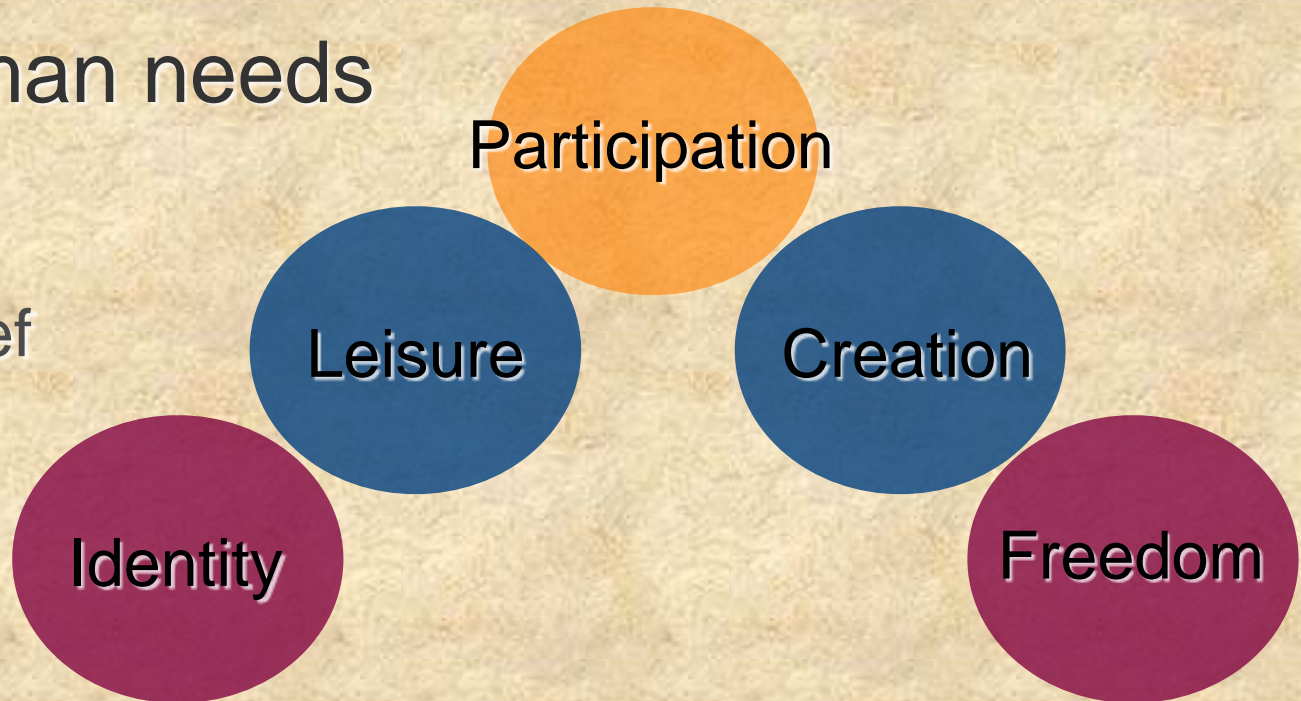 - Wealth, infrastructure, cultural ties –s

Complex adaptive Systems – learning and legacies. – humans decisions depend on past events for future (reflexive behavior)

Know Basic Assumptions

Permanence Subsistence

Protection Affection Understanding
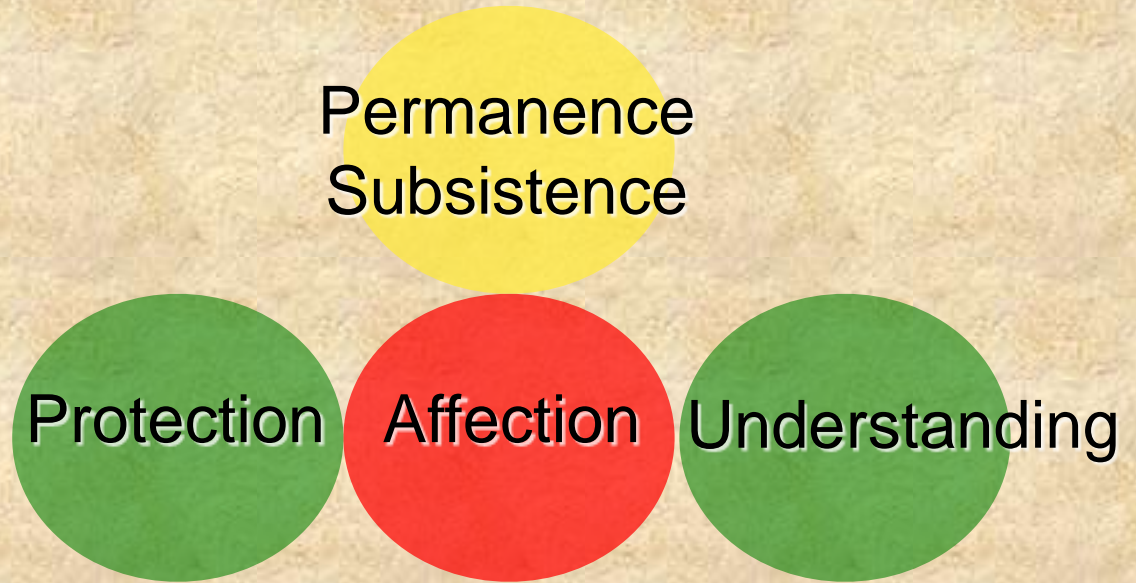
The basic human needs

Participation

according to
Manfred Max-Neef

Leisure Creation

Identity Freedom

200 Cities Web based Survey

NRDCs Smarter Cities

Category sample size	Total #		%
Large	67	0.34	20
Medium	176	0.33	53
Small	402	0.32	127
	645	1.00	N=200

Proportional Stratified Random Sample:
(Generated using Uniform random numbers)

- Other cities: (38, lg, med, and Small)

- Importance -   over 50%
- Public Workshop   57% - gov't
- Barriers   100%
  - Fiscal   71%
- Data Sources   100% local
  - State 57%, national 42%,
  - International 14%
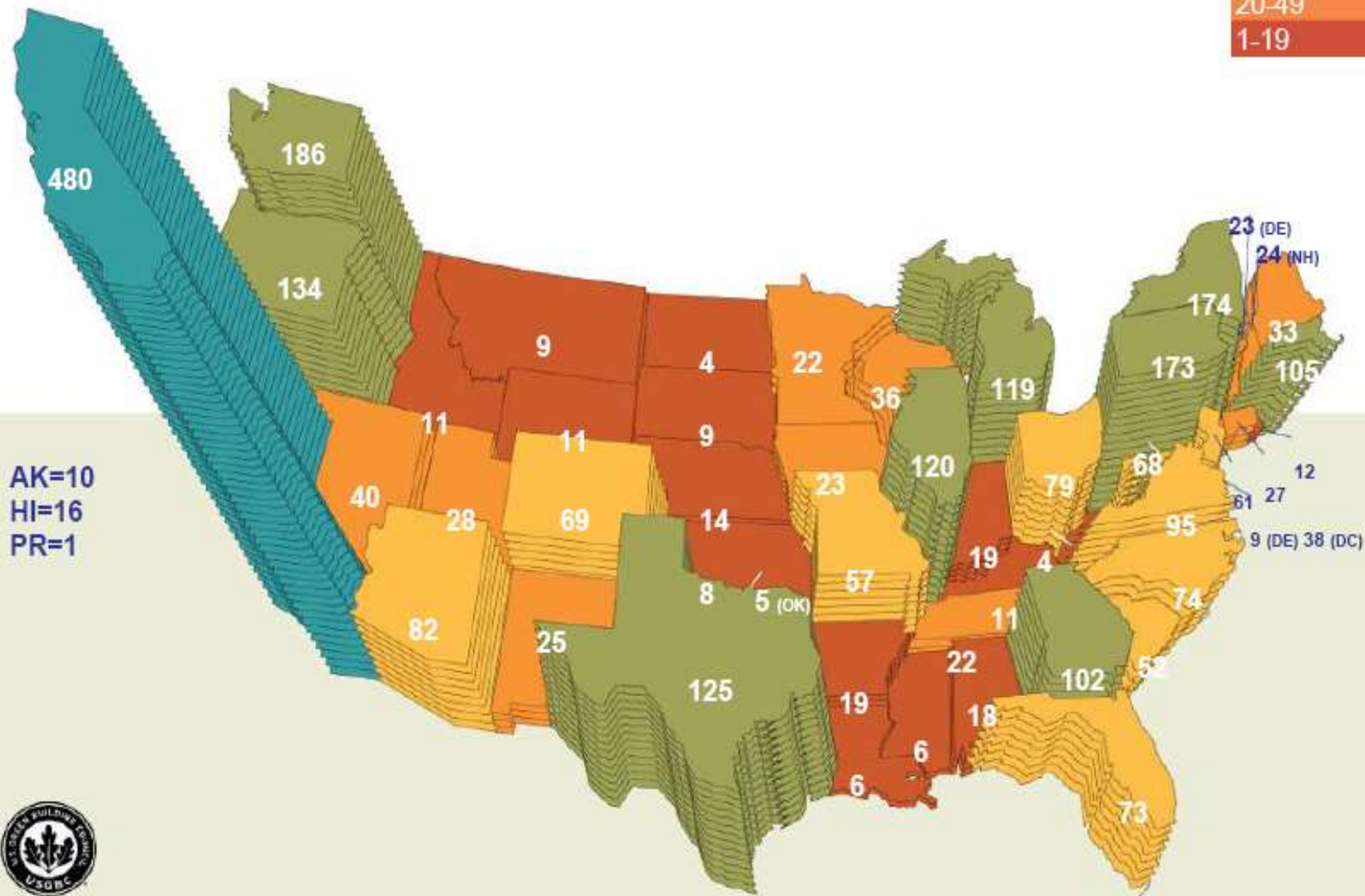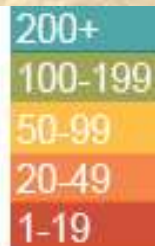- Updating SIs   50% > Annual
  - 33% once every 4-2 years,

Survey Results

Cities with SIs	7
In process of developing SI	6
Policies but no measurements	3
Different terminology	1

LEED for new construction buildings as of 07/06 — Distribution by geography

Survey Results

- One Main office   71% no

- Useful in City Govt   100%
    - Land use plan. – 88% (very import)
    - Environ.   - 88%
    - Trans,   - 70%
    - Parks & Rec   - 70%
    - Health   - 88% Moderately
    - Budget   - 50 % Moderately

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Survey Results

- **Importance to Private Sector**
  Mod – 44%, Import – 50 %, V.Imp 17

  Public Participation
    Very important 44%, Important 29%

  Communications
    Internet/social Network – 75%
    report to public   - 50%
    Budget Doc   - 62%

SI Development in United States	Large cites 250K - >	Medium cities 199-249k	Small cities 50-199K	Total
No Sustainability Indicators, goals, or program	6	33	95	134
Disaggregated/ Indicators /not	6	9	9	24
Aggregated – SIs but not used	6	7	11	24
Aggregated – SIs Operational	0	4	10	14
Aligned Operational & Monitored	3	1	0	4
Total	21	54	125	200

Key communty Sustainability Issues

Issue	Count	Issue	Count
Transportation	6	Open Space	2
Land Use	6	Energy Generation	1
Green House Gases	5	Funding Sustainable Development	1
Jobs	5	Environment	1
Lack of approach to Sustainable Development	5	Social Equity	1
Affordable Housing	4	Food Security	1
Water quality/quantity	3	Sea Level Rise	1
Retaining Historic Bldg	2		
Green building	2		

Outstanding examples

- **Oakland** - Alignment matrix – goals to measure across sustainability domains
- **Albuquerque** - Software aligning goals, measures, data, & public comment
- **Denver** - Stated policy that economy is subsystem of environment
- **Austin -** Sustainability matrix for CIP projects (Austin)
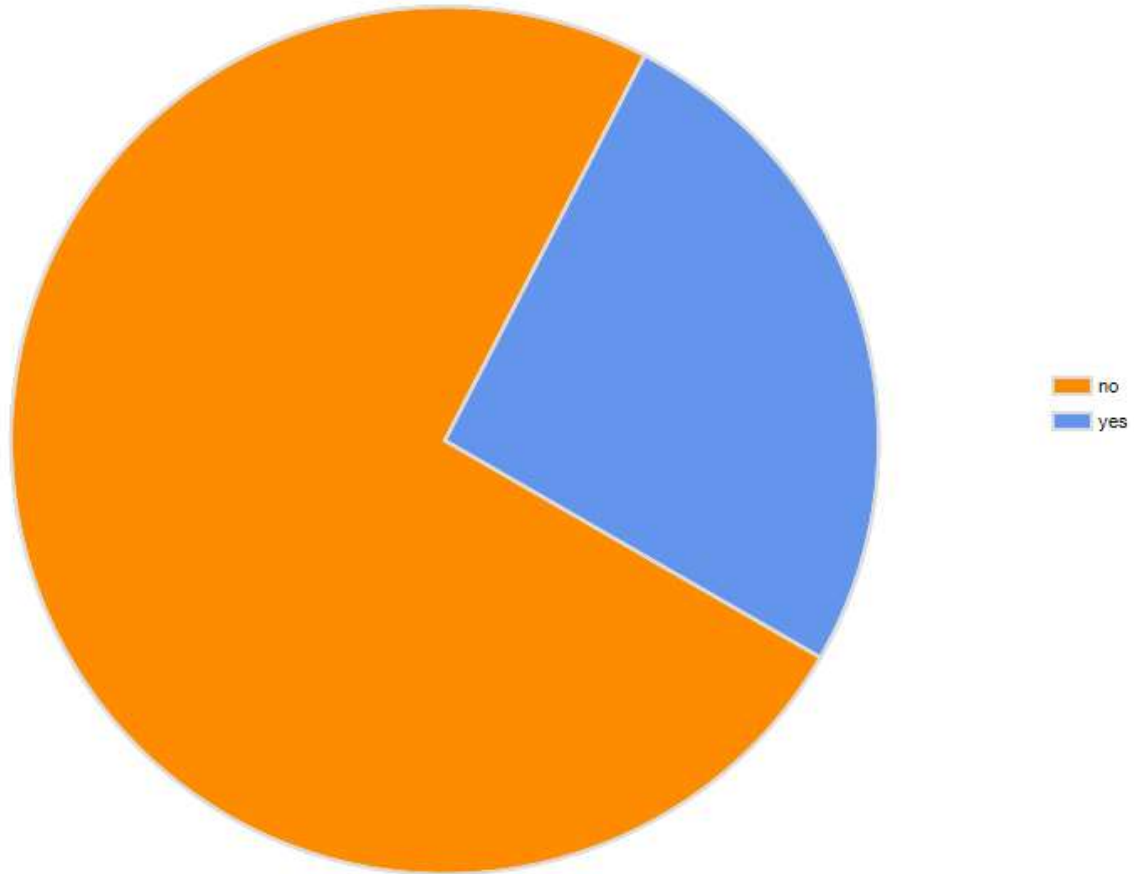- **Austin** - Carbon Neutral by 2020

Tale of three cities

- Jacksonville, Florida
  - NGO, began in 1985, pre UNCED
  - Quality of life indicators, evidence of use
- Santa Monica, California
  - Core Principle, 8 guiding principles for gov.
  - Self evaluation – city did piece meal approach
- Sustainable Seattle
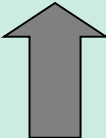 - More famous outside then in,
  - 1993 first SIs, not used, maybe soon

Does your city or organization measure sustainability?

Legend:
- No
- Yes
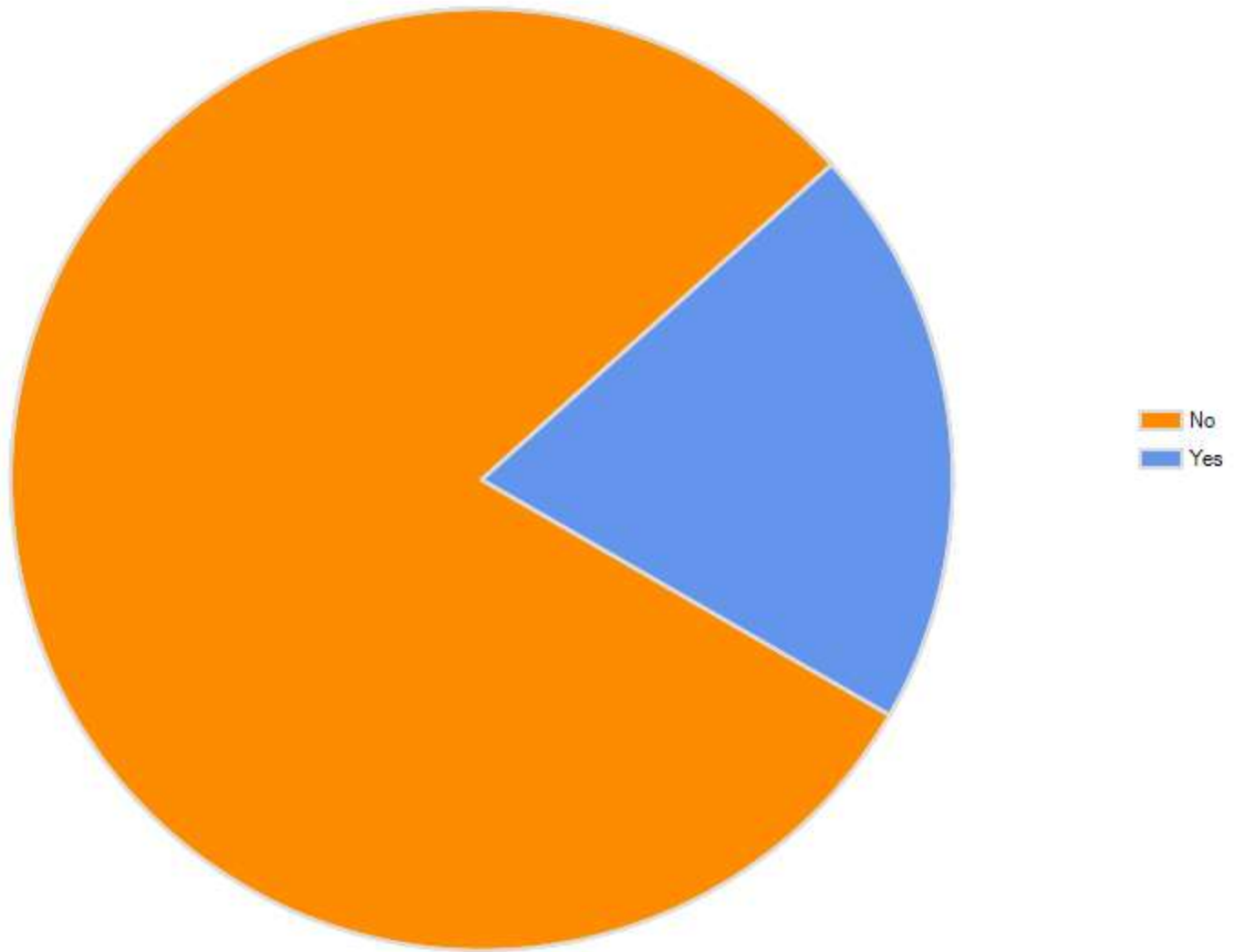
Has your city defined sustainability?

Summary of Primary Climate Change Projection

Major	Direction	Description
Air temperature	⬆	• Increase approximately 10°F by end of current century. • Temp. increased as much as 3.6°F during the 20th century. • Largest increase occurring during the winter months. • Rates of warming were higher in the later part of the 20th century, and Juneau's average wintertime temp. rose by 1.5-3°F in the past 60 years.
Vegetation	⬌	Shrubs and trees will have colonized elevations currently characterized as alpine or tundra habitat
Precipitation	⬆	• Average winter snowfall at sea level in Juneau decreased from 109 inches to 93 inches in the past 60 years. • The average winter precipitation including rain and snow (reported as inches of liquid water), increased by 2.6 inches or more
Sea level Rise	⬌	• Isostatic rebound is likely to cancel relative sea level rise
Icefield	⬇	Icefield will continue to retreat
Ecological Response	⬌	• Many changes not be predictable and some may be counterintuitive. Ex: yellow cedar trees are freezing in spring as temp. warms due to a loss of insulating snow cover. • Effects on salmon largely unknown • Wetland nursery areas for marine species • Plants & animals ability to adapt w/ rapid changes

Process

- Visioning (NGO, City, Chamber)

- Organization/ Mission/Objectives

- Framework

- Develop and Publication of Indicators

- Public Review and Revisions