

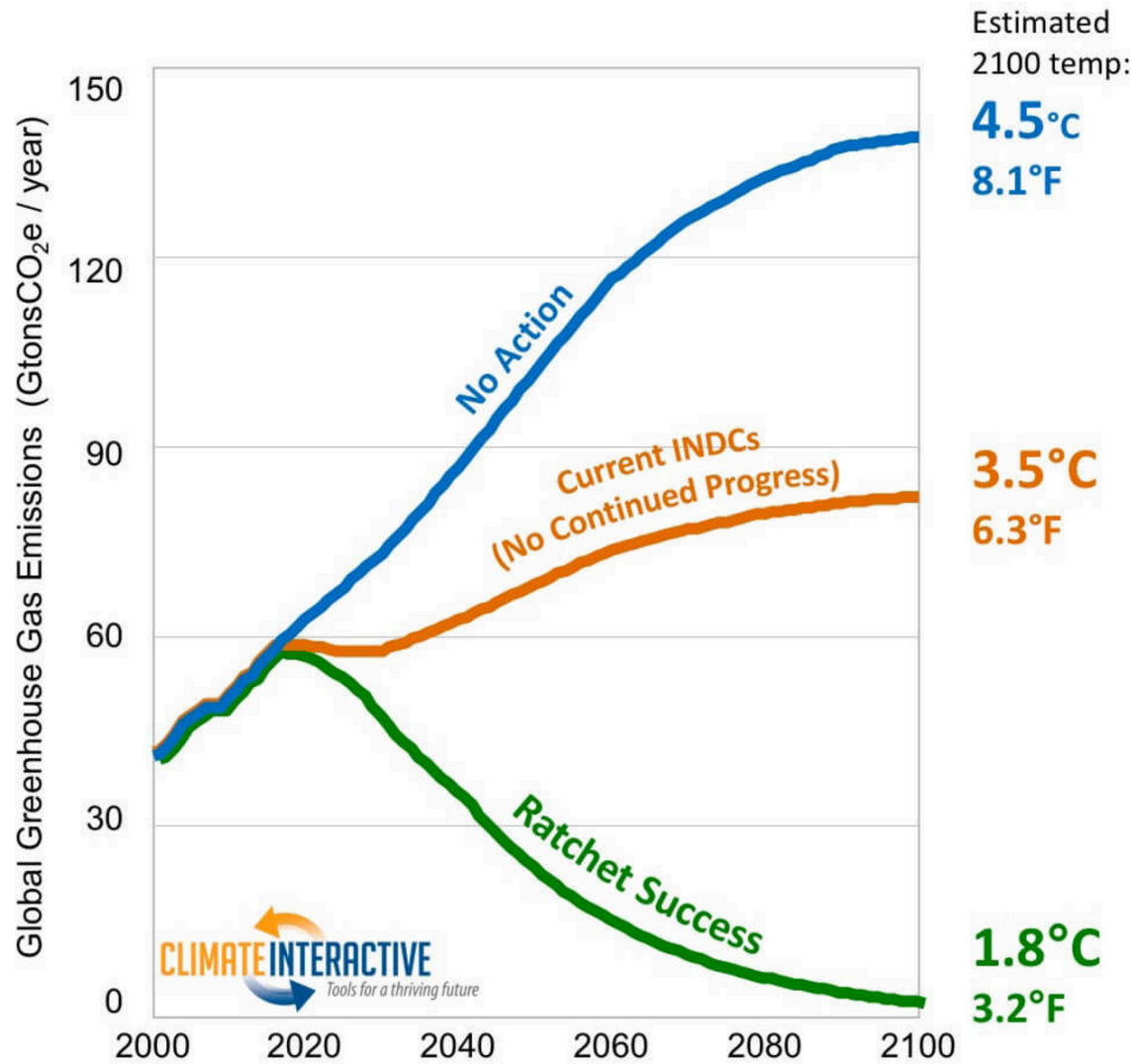
Conceptualizing Sustainable Futures

OBJECTS IN MIRROR ARE
CLOSER THAN THEY APPEAR

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Sustainable Futures ?

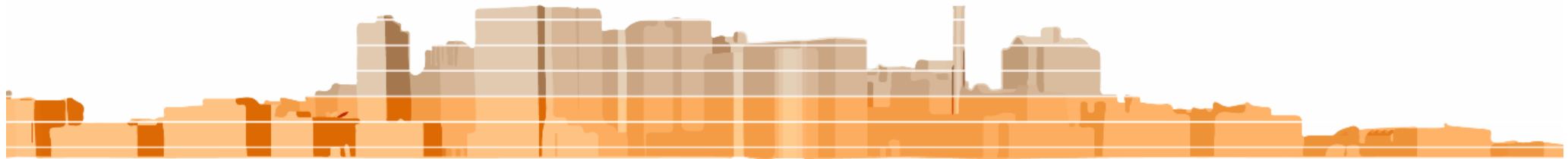


CLIMATEINTERACTIVE
Tools for a thriving future

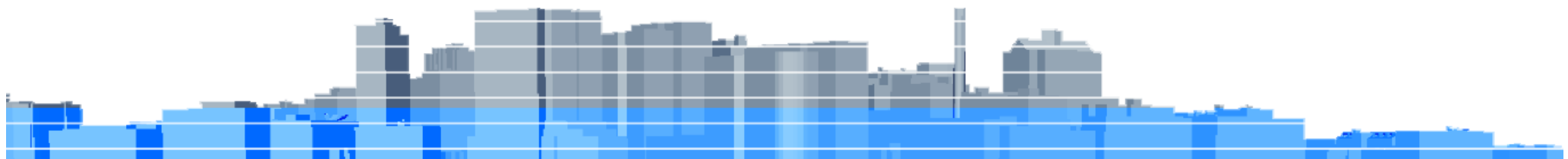
What is an EcoDistrict?

- *Promotes district-wide, sustainable projects*
- *Reduces emissions and resource use*
- *Engages cross-disciplinary stakeholders*

DISTRICT ENERGY REDUCTION



DISTRICT WATER REDUCTION



What is an EcoDistrict?

EcoDistricts strive to:

- **Foster sustainability initiatives**
- **Implement district-wide collaborative efforts**
- **Engage stakeholders to achieve complex projects**
- **Conserve resources (energy & water)**
- **Promote public health**
- **Increase transportation mobility**
- **Encourage equitable development**
- **Reintegrate ecological systems**

The creation of an EcoDistrict supports the continued growth of districts by developing strategies for sustainable growth that consider environmental impacts, quality of life, and economic vitality.

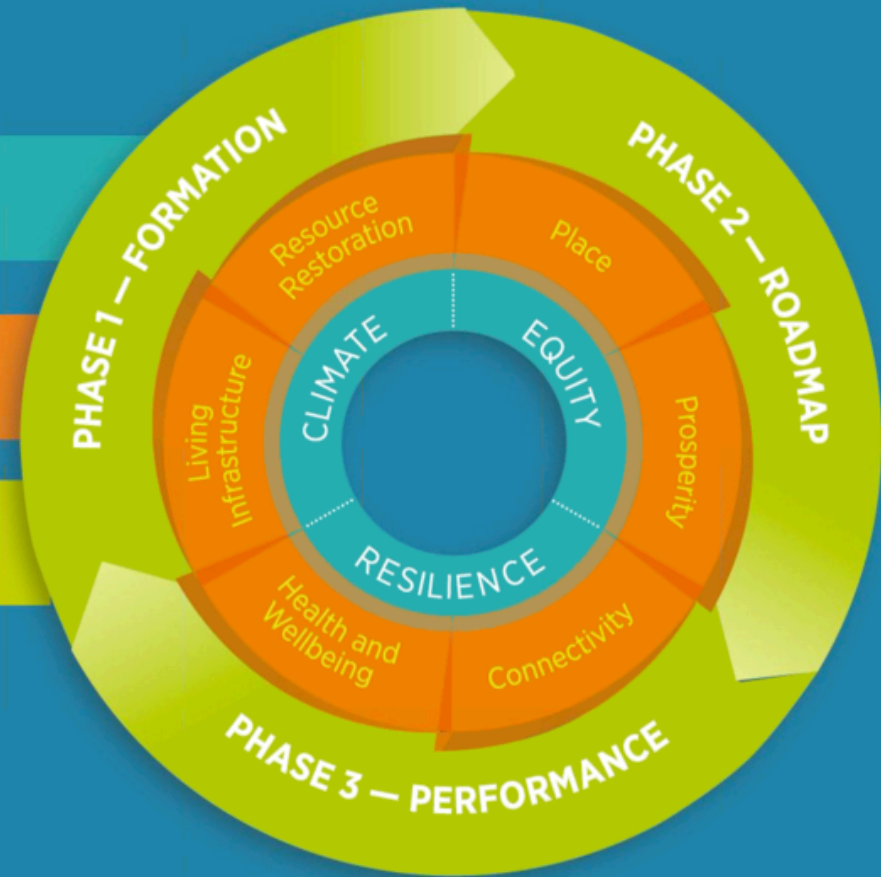


THE PROTOCOL: WHAT'S INSIDE

3 IMPERATIVES

6 PRIORITY AREA METRICS

3 PHASE IMPLEMENTATION MODEL



EcoDistrict Imperatives

equity.

resilience.

Resilience is the capacity of cities to function so that all people may thrive — especially those most vulnerable — regardless of the stresses they encounter. We encourage project teams and practitioners to view resilience with a broad lens that considers how to prepare their community for social, technological, economic, environmental, and/or political disruption and their impact on health and wellbeing.

climate.

What is an EcoDistrict?

DELIVERING MEANINGFUL PERFORMANCE OUTCOMES.

At the heart of the Protocol are six Priority Areas, a set of rigorous performance areas which are used to help scope and define the project's sustainability agenda. The Priority Areas cover a range of technical issues that support communities in being:

- place.** By creating engaged, inclusive, culturally rich, and vibrant communities.
- prosperity.** By prioritizing education, employment, and economic opportunities that build prosperity and accelerate innovation.
- health and wellbeing** By creating communities that nurture peoples' health and happiness.
- connectivity.** By building the most equitable and efficient physical and digital connections between people and place.
- ecosystem health.** By building communities with flourishing ecosystems.
- resource protection.** By creating communities that eliminate pollution and restore natural capital.

PRIORITY AREAS



EcoDistricts

www.ecodistricts.org

What is an EcoDistrict?

6

RESOURCE PROTECTION

Goal: Create communities that eliminate pollution and restore natural capital.

	OBJECTIVES	METRICS
GREENHOUSE GAS EMISSIONS REDUCTION	GREENHOUSE GAS EMISSIONS REDUCED WITHIN THE DISTRICT	Annual tons of greenhouse gas emissions emitted per capita within the district
		Annual tons of greenhouse gas emissions emitted from buildings, infrastructure, transportation, and water consumption
	GENERATION OF DISTRICT-SCALE RENEWABLE ENERGY	Percentage of total energy derived from decentralized renewable sources, as a percentage of the city's total energy consumption
		Percentage of electrical and thermal energy generation provided by renewables
WATER EFFICIENCY	EFFICIENT USE OF POTABLE WATER THROUGHOUT THE DISTRICT	Annual gallons of water used per capita annually
		Annual gallons of water used per square feet annually
	ALTERNATIVE WATER SOURCES FOR NON-POTABLE USES	Number of buildings within the district have access to alternative (non potable) water sources
WASTE MANAGEMENT	MINIMAL GENERATION OF WASTE	Percentage of per capita waste diverted from landfill
	CAPTURE THE RESIDUAL VALUE OF ORGANIC WASTES	Percentage of organic waste that is diverted from landfill for energy recovery or composting

The Process is Similar for New or Existing Neighborhoods

Realize Vision

- Built vision & momentum

EcoDistricts 'Incubator' workshop

- A team of 5 representatives attended in May 2013

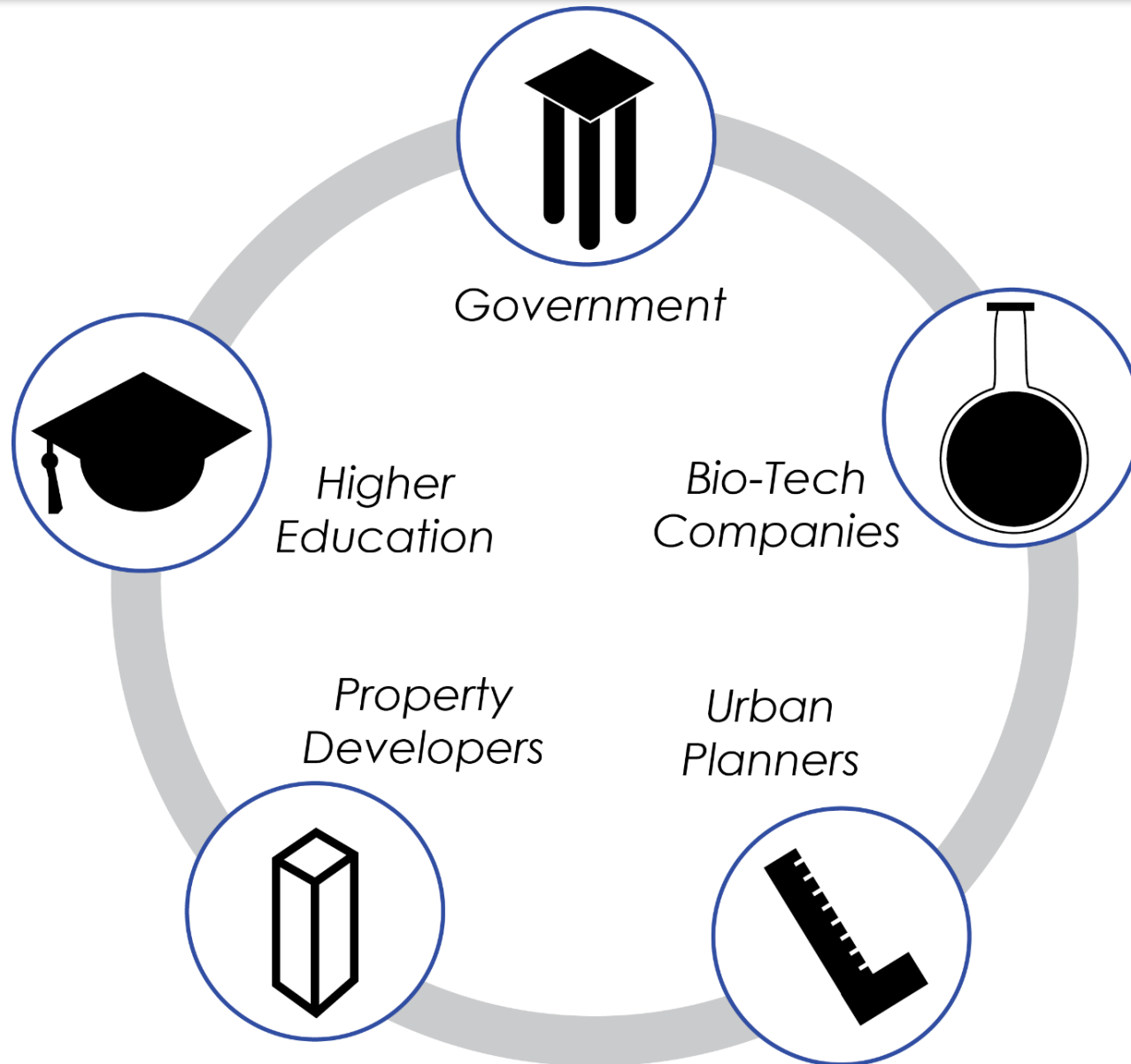
Grow the stakeholder group

- Recruited key decision makers to participate in the EcoDistrict development early on

Initial organization funding

- Funding for a Project Manager
- Funding for a consultant to complete a district energy assessment

Multiple Stakeholders



Target Cities: A Clinton Global Initiative

- National Pilot Program
- 11 EcoDistrict projects across 9 North American Cities
- Focused on peer learning & capacity building
- Provides insights into complicated projects

Kendall Square's EcoDistrict:

The **Kendall Square EcoDistrict** is working:

... to facilitate Kendall Square's growth:

GROWTH ↑
in the number of residents
in robust, healthy habitat
in livability
in business/job opportunities
in capacity for resilience

... while reducing the district's footprint:

FOOTPRINT ↓
in carbon emissions
in energy consumption
in stormwater runoff
in potable water usage
in impermeable surfaces



Diagram illustrates overarching goals of Kendall Square's EcoDistrict.

Talbot-Norfolk Eco-Innovation

by the numbers...

existing energy reduction strategies
61 energy audits
26 housing retrofits
1 deep retrofit

- 61 thermostats \$9,516
- 1,830 lights \$915
- 61 showerheads \$1,037
- 122 aerators \$488
- 61 powerstrips \$732
- 61 LED lights \$305

Yearly Neighborhood Savings

\$12,993 utility bills

15% retrofit goal nearly achieved!

525 housing units
+100 energy efficient units

13 blocks
250+ homes
42 acres

energy efficient,
 socially just,
 and green.

educate the
 new generation.

engaging
 community
 leaders
 + local jobs

+ after school
 education

new trees
 + clean air

10 restored parcels
15 pending beautification

FAIRMOUNT LINE

2 solar projects

- carbon
6 rain barrels

+ green roofs

- carbon

+ passive parks

- carbon

18 new rain barrels

1 existing
 + new food gardens

green roofs on bus stops

- carbon
 + walking

- carbon

permeable sidewalks

1 passive park

1 train station
 + access
 - carbon

reduce carbon
 and impacts from
 climate change.

1 corner park

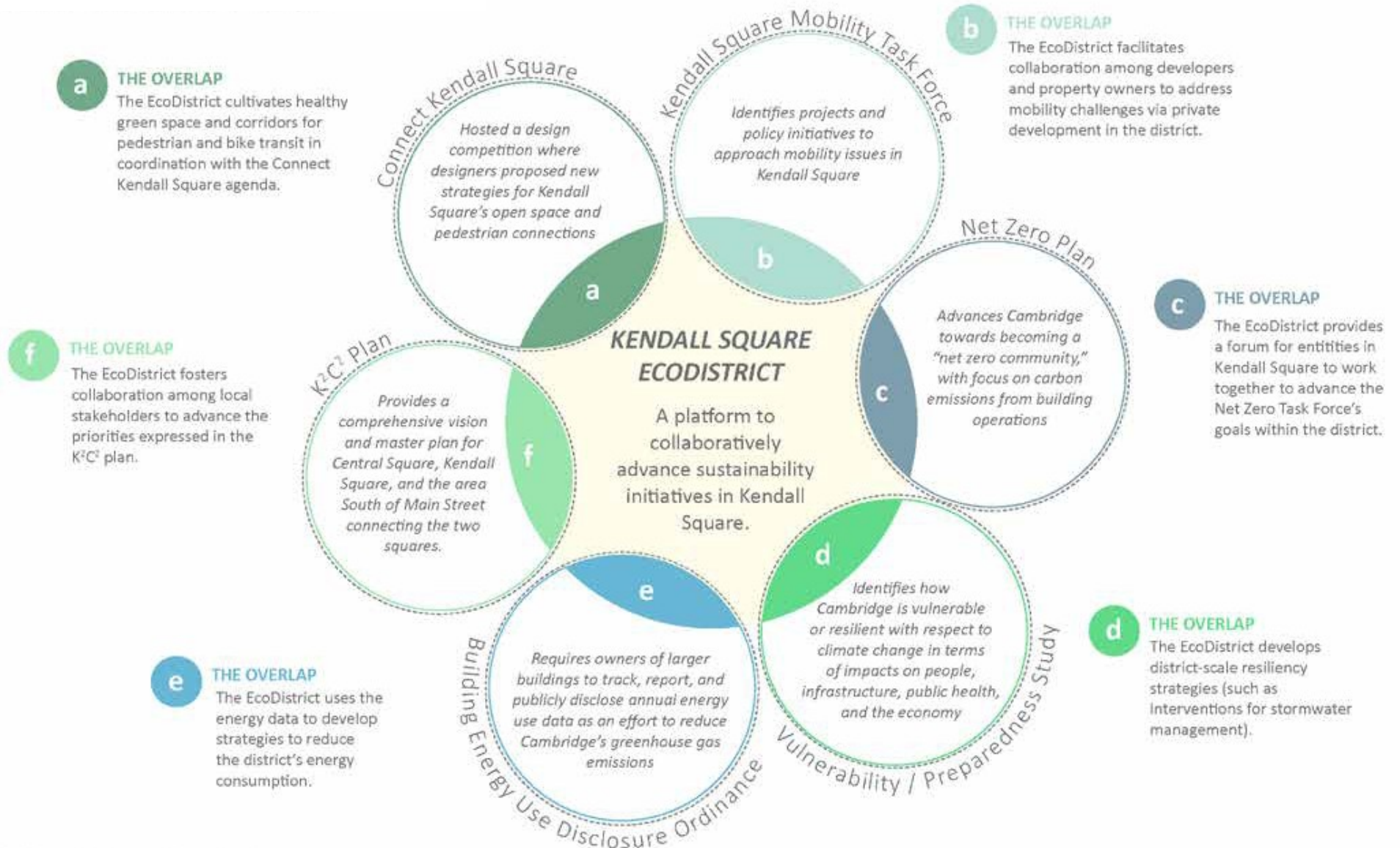
+ recharge groundwater

+ beauty

provide safe and
 healthy public space

+ new crosswalks

Local Initiatives & EcoDistrict Alignment



This diagram illustrates current sustainability initiatives in and around Cambridge and their relationship to the EcoDistrict.

An EcoDistrict & Resilience

Potential Resilience Partnership

Goal: To initiate a conversation between stakeholders, City representatives, and representatives of key neighborhoods outside of the EcoDistrict about how best to increase resilience in all of the neighborhoods and set collaborative goals for resilience to bring to the City Climate Change Adaptation efforts.



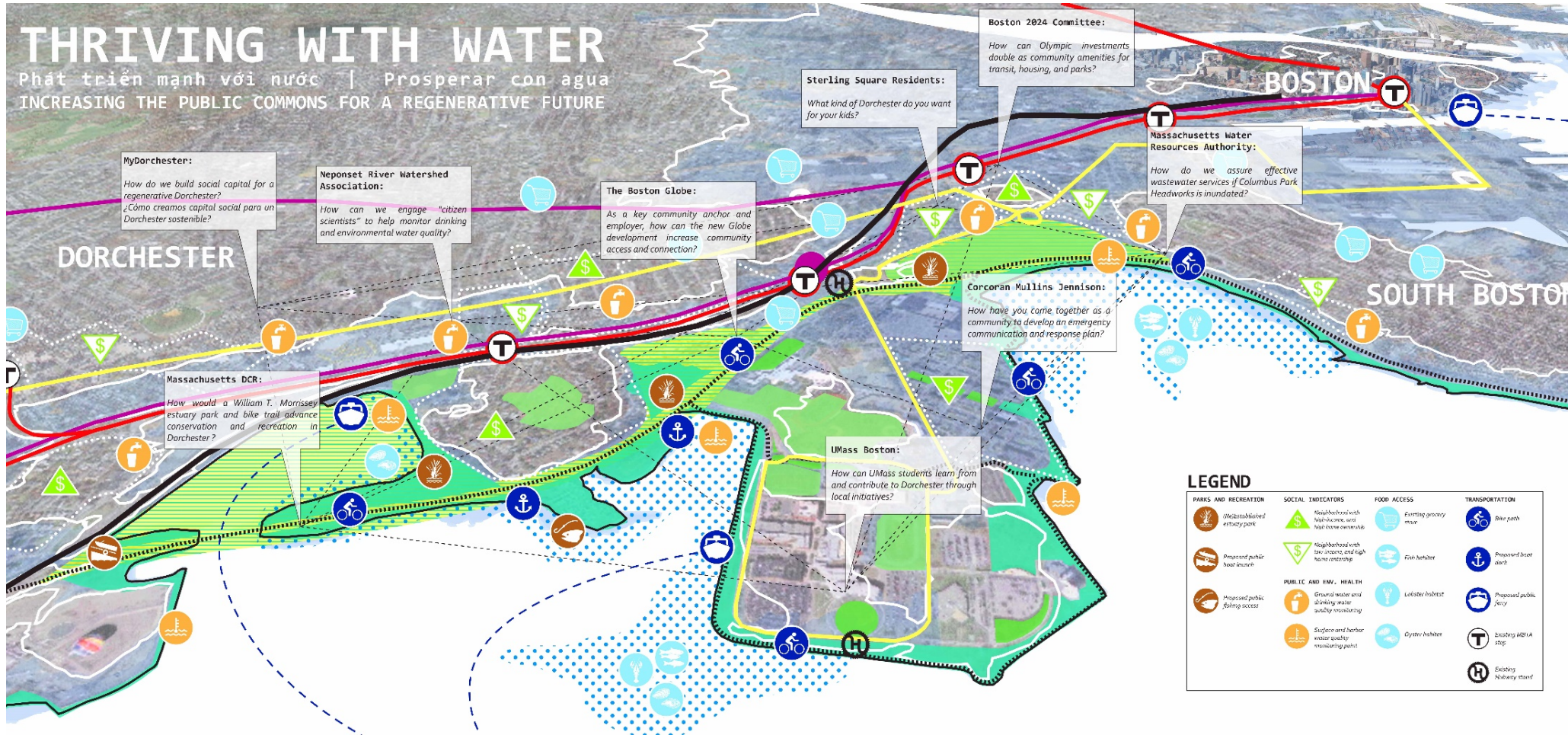
Potential Actions:

- Establish partnerships with surrounding neighborhoods
- Promote shared community benefits
- Identify and prioritize areas vulnerable to climate change

Thriving with Water

THRIVING WITH WATER

Phát triển mạnh với nước | Prosperar con agua
INCREASING THE PUBLIC COMMONS FOR A REGENERATIVE FUTURE





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