

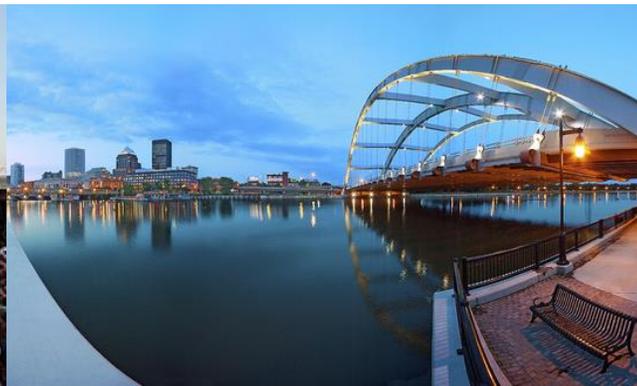
ROCHESTER CLIMATE VULNERABILITY ASSESSMENT

STAKEHOLDER ENGAGEMENT WORKSHOP

June 6, 2018



City of Rochester, NY
Lovely A. Warren, Mayor
Rochester City Council



Workshop Agenda

- I. Welcome
- II. Introductions
- III. Updates on the Rochester Climate Vulnerability Assessment Process
- IV. Updates on the focus group interviews with community stakeholders
- V. Sensitivity and adaptive capacity analysis of systems and assets
- VI. Wrap up & next steps

Introductions

Project Team



City of Rochester, NY
Lovely A. Warren, Mayor
Rochester City Council

Anne E. Spaulding, Manager of Environmental Quality, Division of Environmental Quality

Melissa Chanthalangsy, Energy and Sustainability Analyst, Division of Environmental Quality



HIGHLAND
PLANNING

Susan R. Hopkins, Project Manager

M. André Primus, Planner

Kari Hewitt, Director of Sustainability



Van H. Du, Sustainability Planner

Role of the Stakeholder Committee

- I. Provide guidance, technical expertise, and feedback on the CVA
- II. Connect the Project Team with key stakeholder groups
- III. Participate in two workshops
- IV. Participate in Project outreach

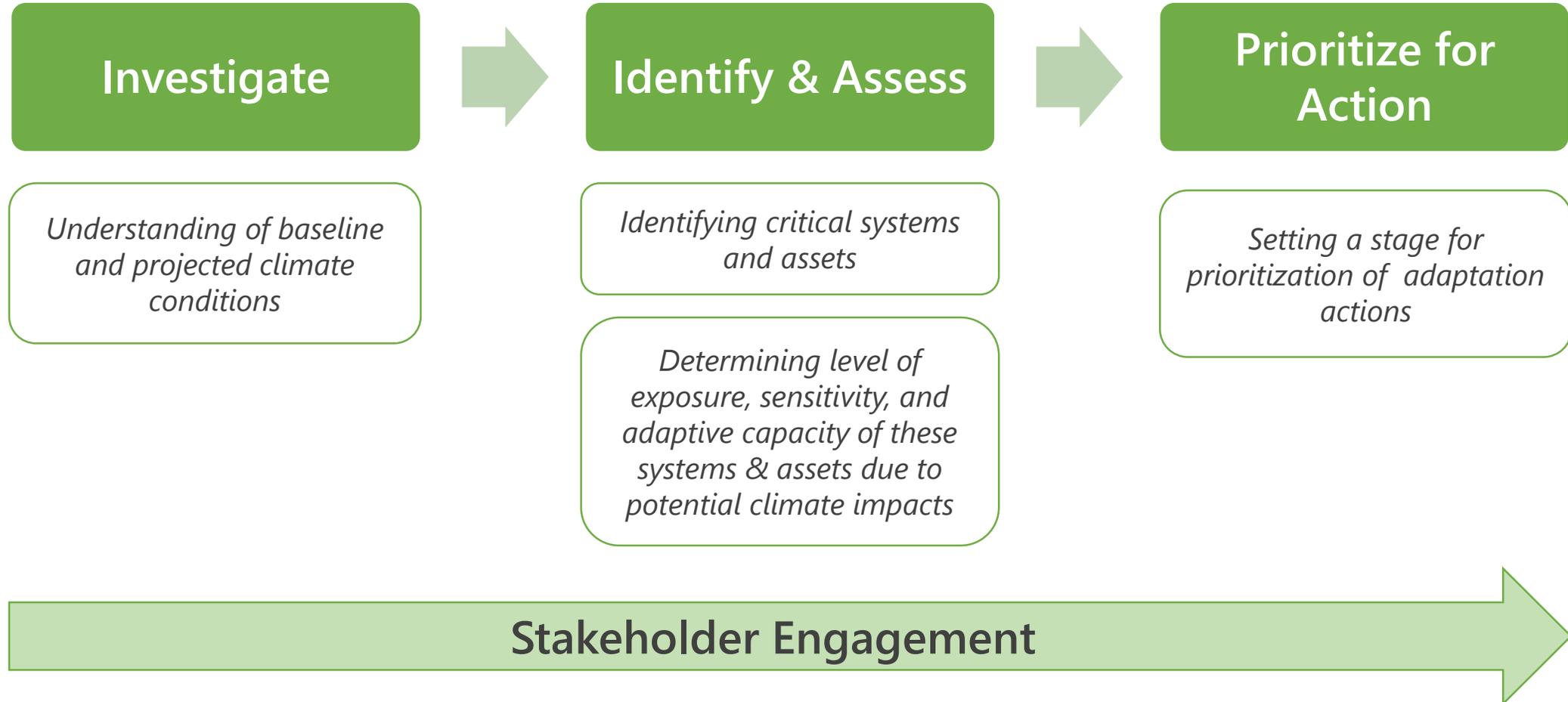
Overview

Rochester Climate Vulnerability Assessment (CVA)

- Continuation of the City of Rochester's climate planning efforts
 - *Supporting the adaptation and resiliency component of the Community-wide Climate Action Plan*
- Better understanding of the City's vulnerabilities and adaptive capacity
- Serving as guide to the City's capital project planning
- Making sure Rochester is a resilient city



Rochester CVA Approach



Stakeholder Engagement & Schedule

- ✓ Pre-Engagement Interviews – February
- ✓ Technical Advisory Committee Workshop #1 – March
- ✓ Stakeholder interviews – March/April
- Technical Advisory Committee Workshop #2 – June
- Public Meeting – August/September
- Final CVA Report – September

Climate Vulnerability Assessment: Progress to Date

Regional and Local Climate Projections

- *Increase in temperatures*

	Baseline (1971 – 2000)	Mid-Century (2050 – 2079)	End of Century (2080 – 2100)
Average Annual Temperature	47.7°F	52°F to 54°F	54°F to 59.4°F
Number of Days \geq 90°F	8 days	22 to 34 days	27 to 57 days
Number of Days \leq 32°F	133 days	86 to 96 days	68 to 88 days
Number of Heatwaves	\leq 1 event	3 to 4 events	3 to 8 events
Duration of Heatwaves	4 days	4 to 5 days	4 to 6 days

Source: NYSERDA ClimAID 2014 Report
NOAA
NCA 3

Regional and Local Climate Projections

- Changes in precipitation*

	Baseline (1971 – 2000)	Mid-Century (2050 – 2079)	End of Century (2080 – 2100)
Average Annual Precipitation	34 inches	4% to 10% increase	4% to 19% increase
Days per Year with Over 1" Rainfall	5 days	5 days	5 to 6 days
Extreme weather events	2-3 times more frequent by end of century		
Annual snowfall	Less frequent snowfall, shorter snow season		
Drought	Increase in short-duration drought during summer season by end of century		

Source: NYSERDA ClimAID 2014 Report
NOAA
NCA 3

Rochester CVA - Planning Subject Areas

PLANNING SUBJECT AREAS			
SYSTEMS	INFRASTRUCTURE	NATURAL RESOURCES	SOCIOECONOMIC
	Transportation	Environmental Resources	Public Health
	Utilities	Natural Habitat	Economy
	Water	Recreational & Open Spaces	Cultural Resources
	Building & Facilities		Social System/Human Services



Focus Group & Interviews: What we heard

Interviews/focus groups

- City code enforcement
- Fire department/emergency management
- Operations
- Arborist
- Disability community
- Chamber of commerce
- Common Ground Health
- Refugee community
- Foodlink
- RIT/UR
- RMAPI
- Monroe County Planning Department

Vulnerable Populations

- ✓ Seniors/elderly
- ✓ Children
- ✓ Low-income
- ✓ People without access to vehicles
- ✓ Disabled
- ✓ Visually/hearing impaired
- ✓ Mental health
- ✓ Non-native English speakers
- ✓ Undocumented
- ✓ Refugees
- ✓ Those without the ability to access resources in a crisis (i.e. family, friends, financial resources)

Key vulnerabilities

Related to...

- Aging housing stock (older roofs, windows, insulation, mechanical systems)
 - Lack of cooling/heating systems
 - Increased risk of mold/illness
 - Acute damage from extreme weather
- Transportation (potential disruptions)
 - Access to employment
 - Access to medical facilities
 - Access to locations with internet/libraries
- Less engagement with local government/fear of seeking help

Sensitivity and Adaptive Capacity Analysis

Sensitivity Assessment

How a system or sub-system might be affected by the climate impacts to which it is exposed:

Sensitivity Levels	
S0	System will not be affected by the impact
S1	System will be minimally affected by the impact
S2	System will be moderately affected by the impact
S3	System will be largely affected by the impact
S4	System will be entirely affected by the impact

Adaptive Capacity Evaluation

A system's ability to accommodate changes, manage damages, take advantage of opportunities, or cope with various climate impacts:

Adaptive Capacity Levels	
AC0	System is not able to accommodate or adjust to impact
AC1	System is minimally able to accommodate or adjust to impact
AC2	System is somewhat able to accommodate or adjust to impact
AC3	System is mostly able to accommodate or adjust to impact
AC4	System is able to accommodate or adjust to impact in a beneficial way

Vulnerability Ranking

How vulnerable a system or sub-system is to the effects of climate change based on rankings of sensitivity and adaptive capacity.

		Sensitivity: Low → High				
		S0	S1	S2	S3	S4
Adaptive Capacity: Low ↓ High	AC0	Yellow	Orange	Dark Orange	Red	Dark Red
	AC1	Light Green	Yellow	Orange	Dark Orange	Red
	AC2	Light Green	Light Green	Yellow	Orange	Dark Orange
	AC3	Dark Green	Light Green	Light Green	Yellow	Orange
	AC4	Dark Green	Dark Green	Dark Green	Light Green	Yellow

Potential Opportunity
Low Vulnerability
Medium-Low Vulnerability
Medium Vulnerability
Medium-High Vulnerability
High Vulnerability

Next Steps

- I. Preparing a Draft Final Report
- II. Hosting an public open house/workshop to solicit community feedback
- III. Developing Final CVA Report