

CITY OF PORTLAND AND MULTNOMAH COUNTY

CLIMATE ACTION PLAN 2009

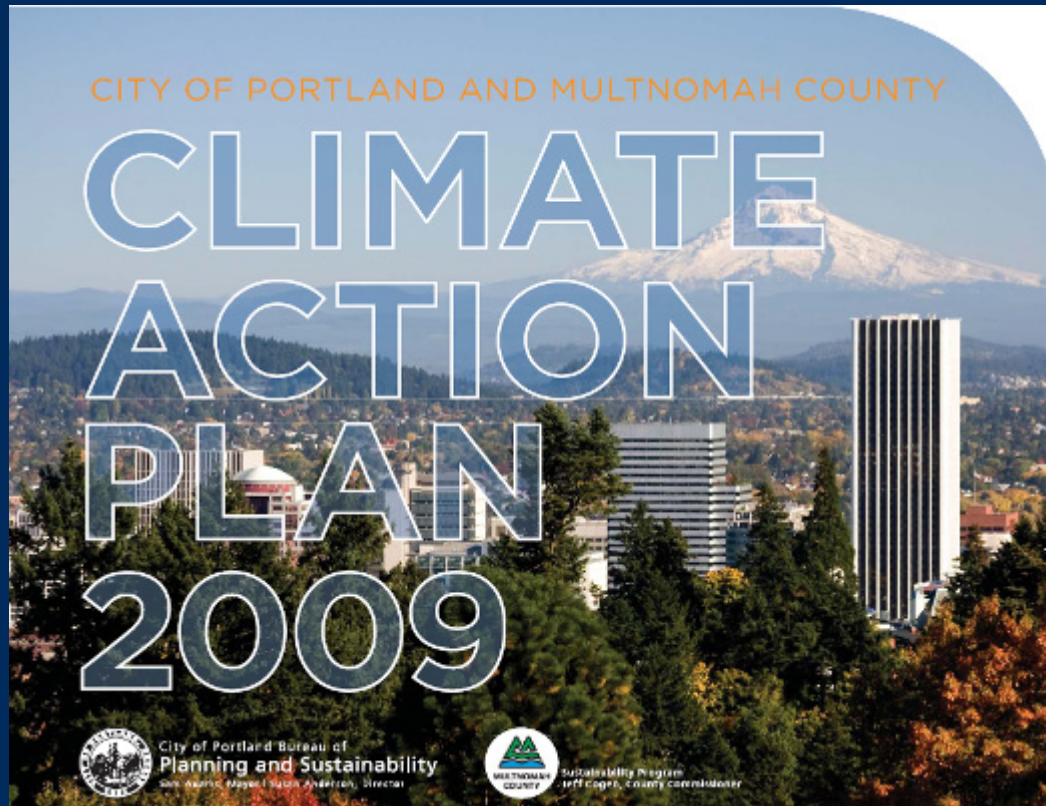


City of Portland Bureau of
Planning and Sustainability
Ann Warren, Megan Louise Anderson, Director



Sustainability Program
Jeff Cohen, County Commissioner

Climate Action Plan



Builds on prior plans from 1993 and 2001

2050 Goal:

80% reduction in emissions

2030 Interim goal:

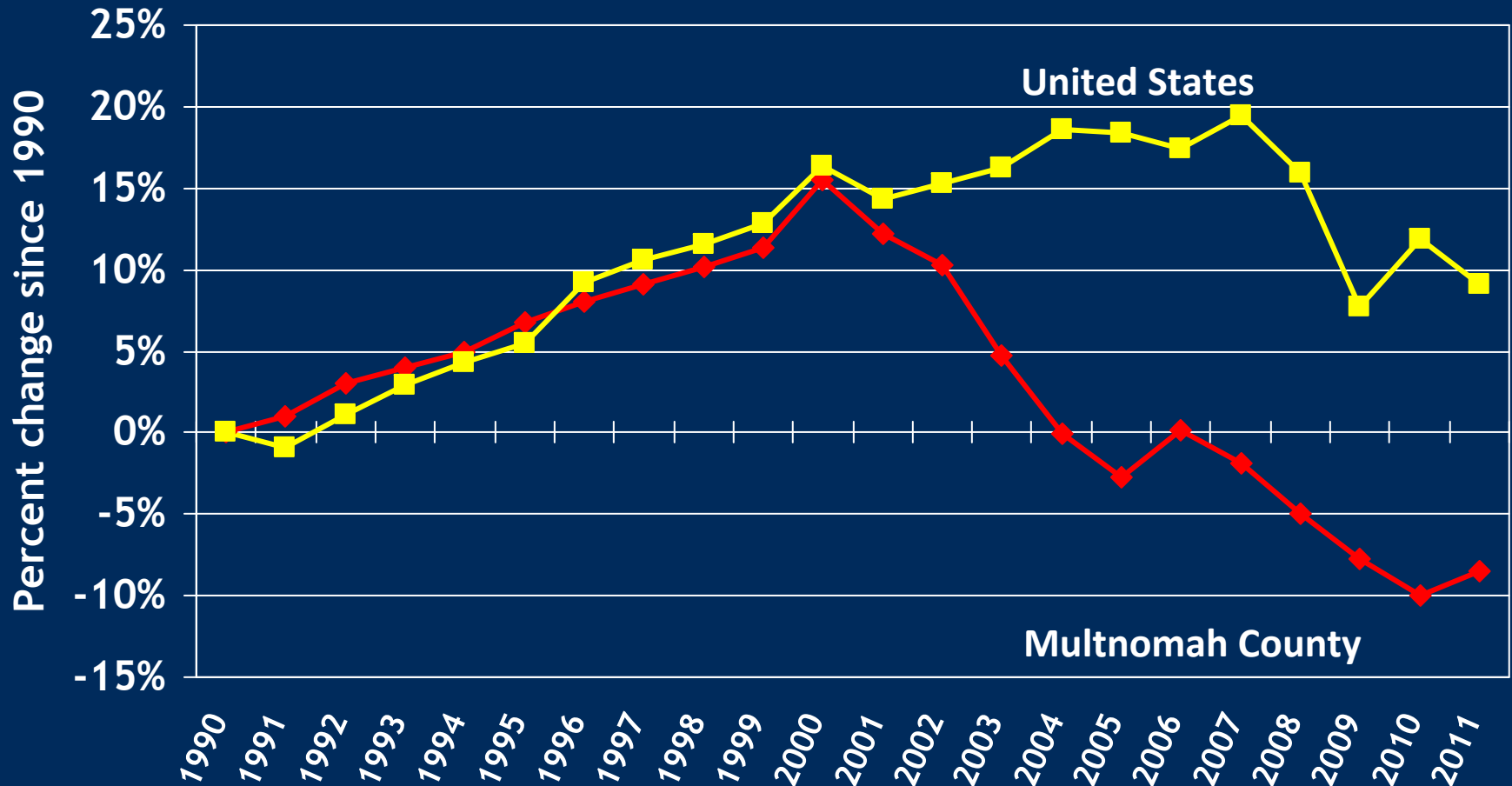
40% reduction

2030 Objectives

2012 Actions

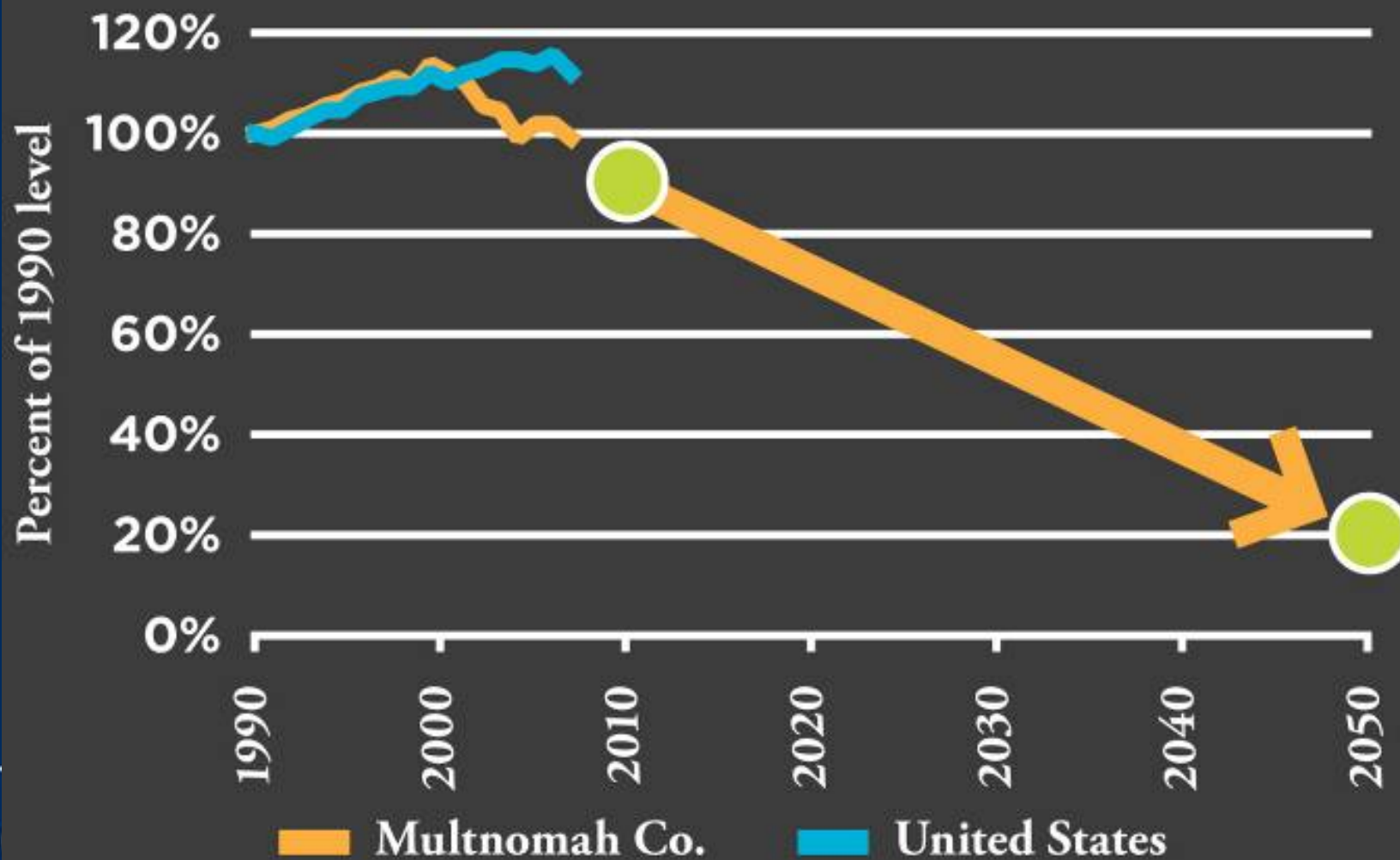


Local greenhouse gas emissions diverge from the national trend



2050 Challenge

Greenhouse gas emissions trend



Initial expectations for 2013 CAP

- Strengthen and elevate equity
- Align with Portland Plan
- Add consumption-based inventory



Process

- Convene Steering Committee
- Technical working groups
 - Equity metrics
 - Buildings and energy
- Public review
- Planning and Sustainability Commission
- City Council/County Board consideration



Climate Change Preparation Plan



Bureau of Planning and Sustainability
Innovation. Collaboration. Practical Solutions.



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CLIMATE ACTION PLAN 2009



City of Portland Bureau of
Planning and Sustainability
Dan Abston, Deputy Mayor, Director



Sustainability Program
Jeff Roggen, County Commissioner



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Eight Action Areas

1

BUILDINGS AND ENERGY

2

URBAN FORM AND MOBILITY

3

CONSUMPTION AND SOLID WASTE

4

URBAN FORESTRY AND NATURAL SYSTEMS

5

FOOD AND AGRICULTURE

6

COMMUNITY ENGAGEMENT

7

CLIMATE CHANGE PREPARATION

8

LOCAL GOVERNMENT OPERATIONS



MITIGATION

Reduced Car
Travel

Energy
Efficiency

Reuse and
Recycling

Transit

ADAPTATION

Ecoroofs

Water
Conservation

Home
Weatherization

Tree
Preservation

Cooling Centers

Invasive Species
Removal

Mosquito
Control

Flood
Management



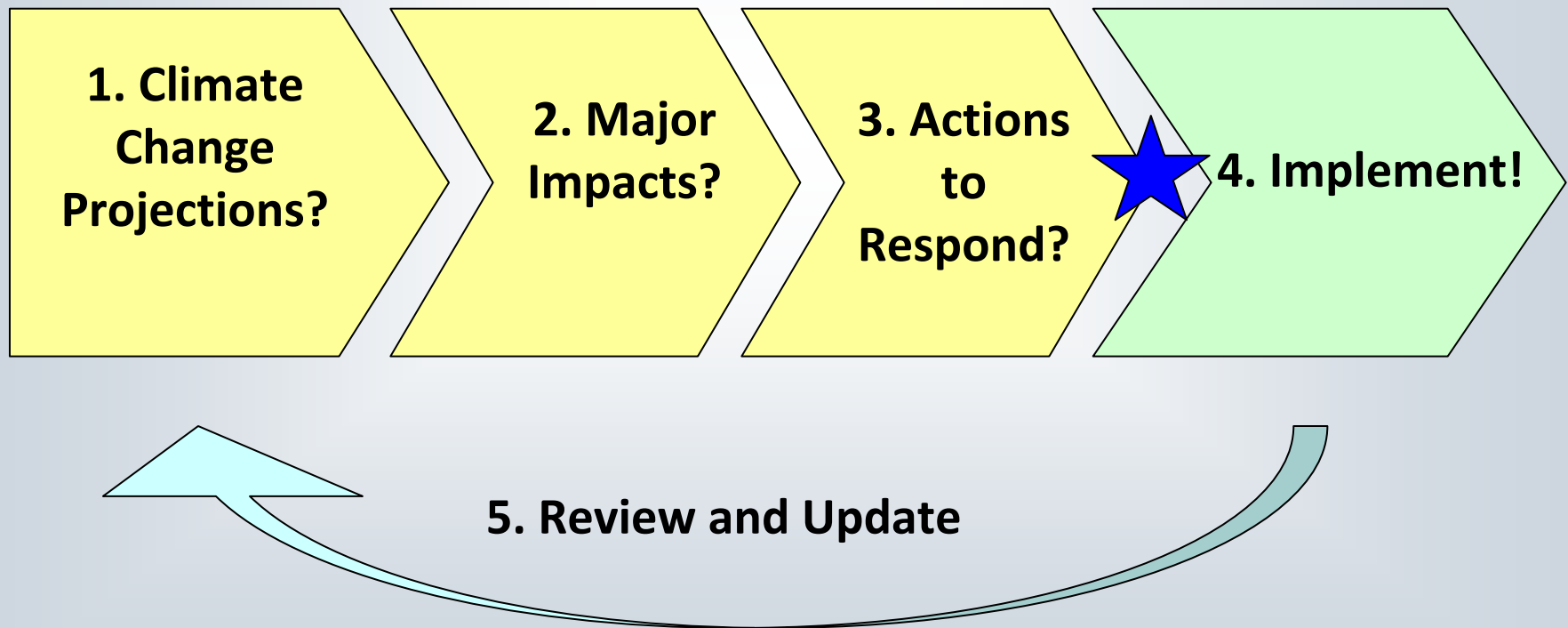
Observed Oregon Changes

- Annual avg. temperature
 - Up 1.5° F
- Spring precipitation increases
- Shifts in seasonal stream flows
- Cascade snowpack
 - Down 18-20%
- Sea level rise
 - 2.8 to 3.1 mm/yr
- Decline in glaciers



Climate Adaptation Planning

Adaptation Strategy to
City Council and County Board:
Fall 2013



Climate Adaptation Planning

- Built Infrastructure
- Natural Resources
- Health and Human Services

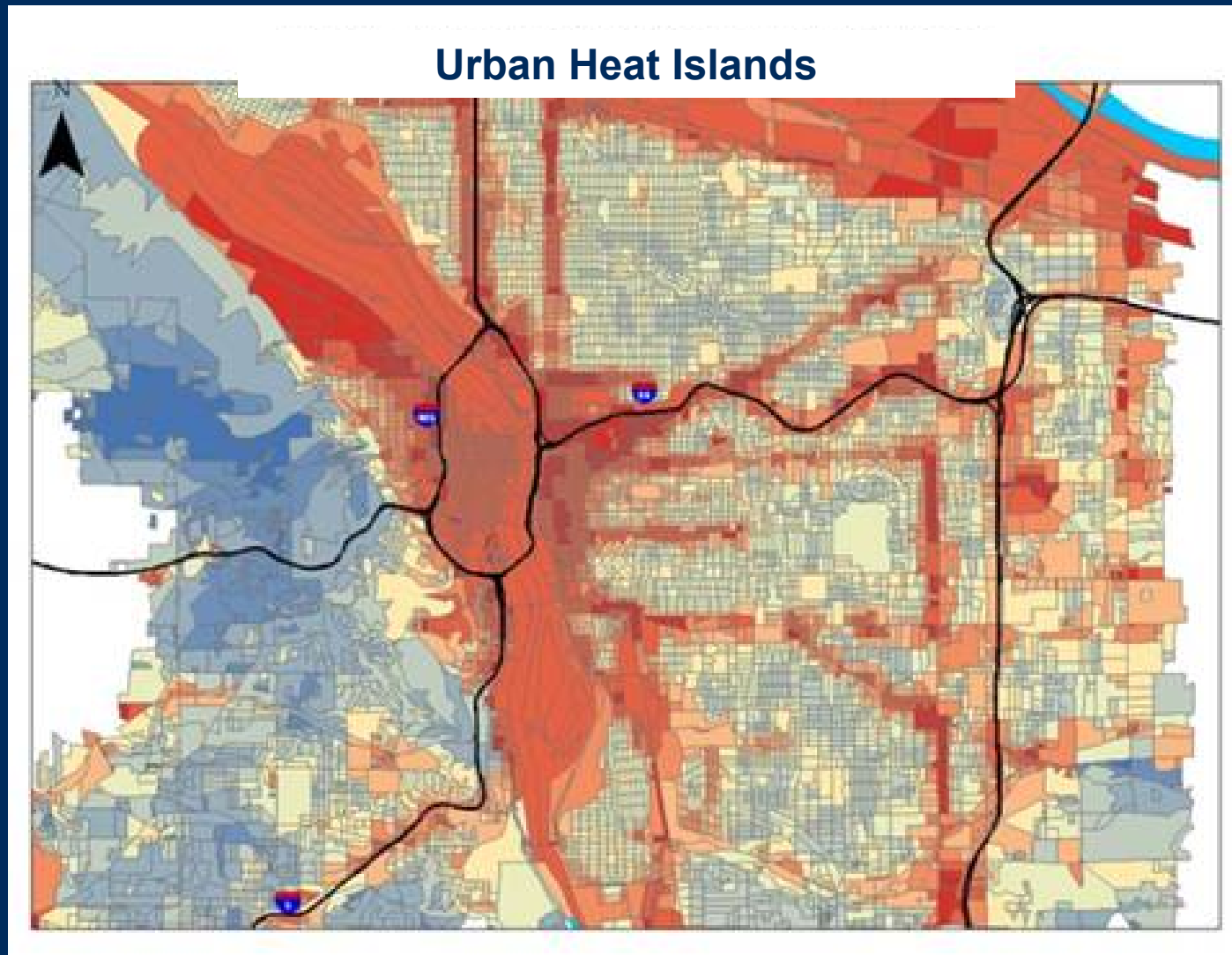


Climate Projections

- Hotter, drier summers with more extreme heat days.
- Warmer, wetter winters with storms of greater intensity.



Hotter, Drier Summers - Risks



Hotter, Drier Summers - Risks

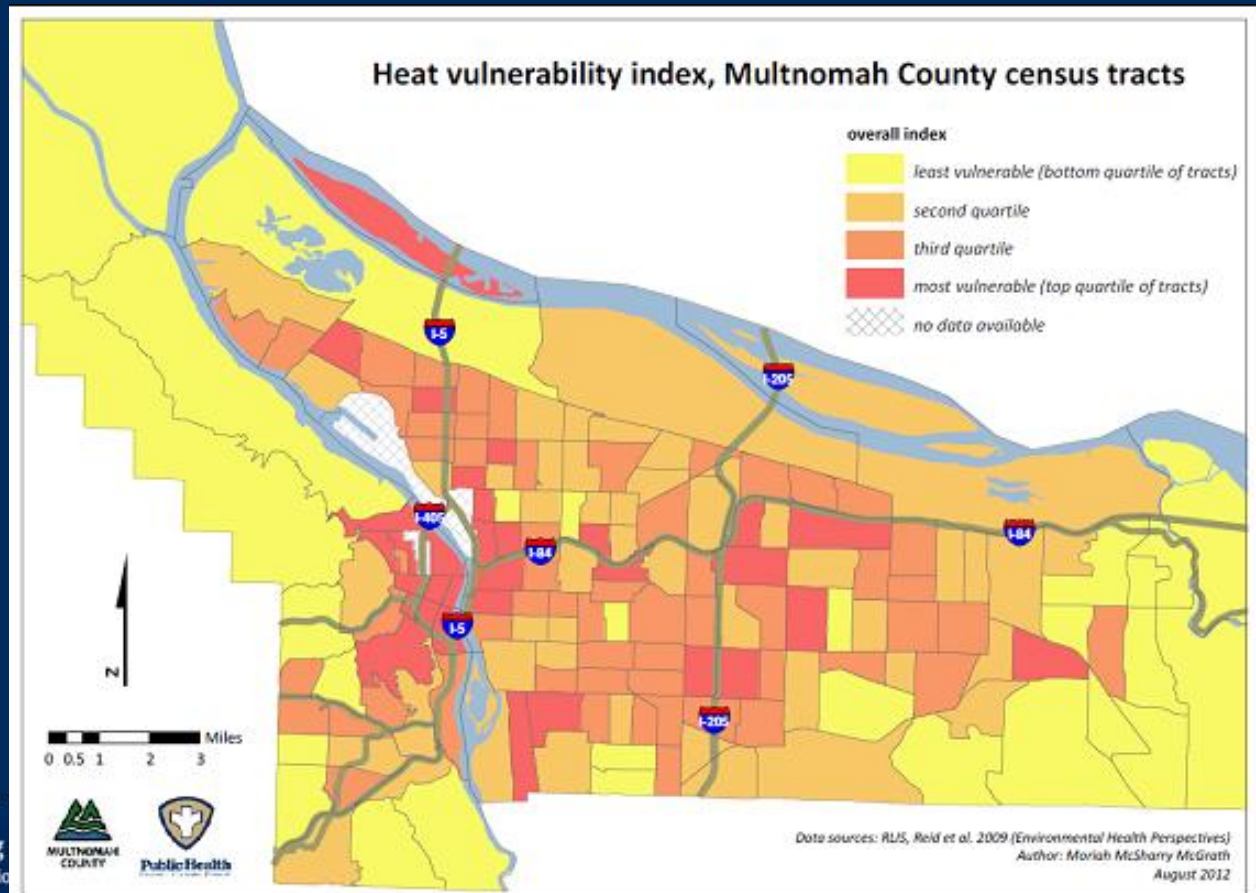
- Drought

- Wildfire



More Extreme Heat Events - Impacts

- Heat-related illness
- Demand for cooling centers



Hotter, Drier Summers – Impacts

- Lower stream flows and increased water temperatures
- Vegetation, habitat and wildlife shifts and fragmentation
- Increased invasive species
- Higher mortality in vegetation



Hotter, Drier Summers – Impacts

- Algae and bacterial growth in drinking water system
- Increased water temps (wastewater treatment, odors, etc.)
- Pavement buckling
- Increased outdoor water demand
- Shifting demand for park recreation activities and facilities



Warmer, Wetter Winters - Risks

- Flooding

- Landslides



Warmer, Wetter Winters – Impacts

- Increased mosquito populations requiring vector control efforts
- Emergency response services during flood events
- Higher river elevations
- Increased turbidity in water supply system
- Bridge scour and damage to docks, boat ramps and floats



Warmer, Wetter Winters – Impacts

- Public and private property damage from landslides and floods.
- Damage to infrastructure (roads, bike paths, culverts) from landslides and floods.
- Increased pumping of treated wastewater.
- Rising groundwater levels damaging underground pipes and facilities.



Climate Adaptation Strategy

- Climate adaptation
- Climate equity
- Summary of climate projections
- Climate risks
- Vulnerability assessments
 - Human Systems
 - Natural Systems
 - Built Infrastructure
- 2030 Objectives
- Three Year Adaptation Actions



Keep Doing What We're Doing, But...



Build Capacity and Institutionalize

- Improve equity outcomes and prioritize vulnerable populations
- Develop maps, data and other tools to understand localized impacts
- Climate variables = a risk in asset management
- Improve emergency management practices



Continuous Improvement

- Improve monitoring and tracking
- Work with regional, state and national partners
- Advance new research to better understand local climate impacts



Process

- Internal draft
 - Contributing staff
 - Regional climate change experts
- Public review draft
- Proposed draft
- City Council/County Board consideration





Questions?

Suggestions?

