

2030 Comprehensive Plan Update

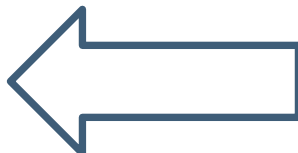


Resilience | June 7, 2017

Tonight's Agenda

- Update process overview
- Resilience in the Comprehensive Plan
- Resilience in the Update
- Your turn to weigh in
- Next steps

The Update Process

1. Due Diligence
2. Outreach and In-reach
3. White Paper on proposed revisions
4. Public Comment
5. Plan Drafting
6. Public Comment 
7. Final Review & Adoption



Where we are now

- Public Comment
 - 5 public meetings on specific topics
 - Wednesday, June 7: Resilience
 - Wednesday, June 14: Housing
 - Tuesday, June 20: Development Transitions
 - Tuesday, June 27: Transportation
 - Tuesday, July 11: Sustainability
- Visit the web page and comment
 - Go to www.raleighnc.gov and search 'Comprehensive Plan Update'



10 Significant Changes

1. Graphic redesign
2. Key Policies
3. Height & Transitions
4. Transit Plan
5. Resiliency
6. Affordable Housing
7. Water Supply
8. Local Food Systems
9. Downtown Element
10. Area Plans

Resilience

“An operational philosophy that seeks to **identify challenges** before they arise and effectively prioritize **strategic investments** and community **capacity building** to better **adapt to, respond, and recover** from unforeseen events.”



In other words. . .

- Be prepared!
- Take action before the worst happens
- Have a plan for operating when resources, facilities, or services are disrupted



Raleigh's Resilience Challenges

- Extreme Storm Events
 - Wind, flooding
- Climate
 - Drought, heat
- Energy
- Others?



Resilience in the Comprehensive Plan

Environmental Protection

- Energy Security
- Climate Change Preparedness
- Water Conservation
- Flood Reduction and Preparedness
- Tree Canopy Conservation and Growth
- Biodiversity




Resilience in the Comprehensive Plan

Public Utilities

- Drought preparedness
- Water reuse and reclamation
- Water Conservation
- Waste-to-energy
- Rainwater collection
- Alternative and Renewable Energy



Example #1: Operations



C.1 Energy Security and Climate Change Preparedness

Globally, cities are taking the lead in preparing for climate change by proactively conserving energy, using renewable energy resources, and improving air quality. Having the foresight to make investments in energy security by preparing residents, businesses, and local infrastructure will be a hallmark of successful cities in the 21st century. As energy prices rise from the combined effects of fossil fuel depletion and public policies aimed at avoiding climate change, those cities and regions that can be the most productive with the least amount of energy input will be best positioned to prosper.

The policies and actions of this section are included not only because of the City of Raleigh's responsibility to the health, safety, and welfare of constituents, but also because they represent a move towards the responsible use of limited resources in a growing world—and a desire to leave a better world for future generations. In practical terms, adoption and enforcement of the following policies could also translate to lower energy bills and cleaner air for local residents.

As with all urban areas, Raleigh's 'carbon footprint' (amount of greenhouse gases produced) depends primarily upon the ways our built environment and our modes of transportation are designed, constructed, and used. Therefore, the following policies and actions concentrate on how best to approach these practices.

Policy EP 1.1
Greenhouse Gas Reduction

Promote best practices for reducing greenhouse gas emissions as documented through the U.S. Mayors' Climate Protection Agreement, the International Council for Local Environmental Initiatives (ICLEI), and the Sierra Club's Cool Cities Program. (3, 4, 5) See the *Community Inventory Report* for additional information on these programs.

Policy EP 1.2
Vehicle Electrification

Promote the electrification of transportation, both public and private. (5)

Policy EP 1.3
Total Cost of Ownership Analysis

Use Total Cost of Ownership (TCO), life-cycle analysis, and/or payback analysis on all energy saving proposals. (5)

Policy EP 1.4
Green Building

Advance green building practices in the public and private sectors by encouraging LEED Gold-level certification and LEED-ND, or their respective equivalents. (5)

Policy EP 1.5
LEED Certification for Public Buildings

All new or renovations of existing City of Raleigh buildings encompassing 10,000 gross square feet or more of building area should achieve a Silver level certification of the U.S. Green Building Council's LEED Green Building Rating System for New Construction (LEED-NC) and Existing Buildings (LEED-EB), or their respective equivalents. A higher equivalent rating (Gold or Platinum) should be sought where practical and as funding is available. (5) See text box: *LEED Certification for New and Existing Municipal Buildings*

Policy EP 1.2

Vehicle Electrification

Promote the electrification of transportation, both public and private. (5)

Policy EP 1.2

Alternative Transportation Options

Promote the adoption of alternative fuel vehicles and advanced transportation technologies, both public and private. (5)

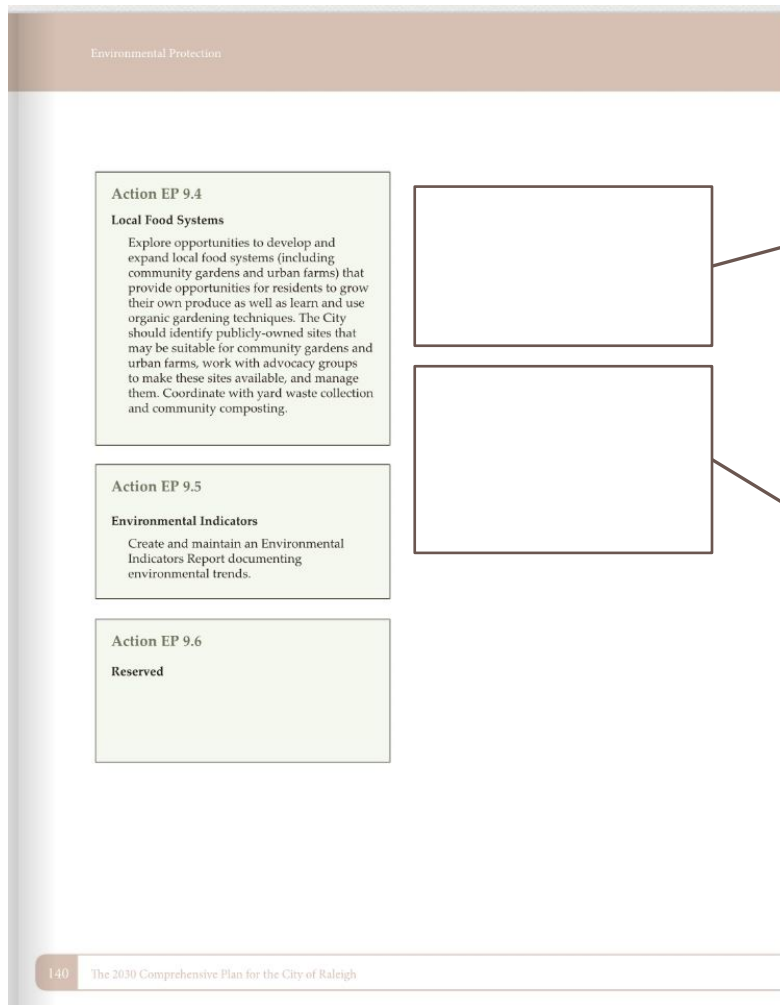
Vehicle Fuels

What: Diversify vehicle fuels

Why: Reduce greenhouse gas emissions and have more options if fuel supply is disrupted



Example #2: Resilience



Action EP 9.8

Community Gardening Grants

Administer a grants program to help distribute funds to non-profits and community organizations that manage community gardens in Raleigh.

Action EP 9.9

Community Gardening Feasibility Study

Conduct a study to determine locations where community gardens would provide the most benefit to the surrounding community. Lower income communities classified as food deserts which have historically had issues related to environmental justice should be given the highest priority, when allocating funding and resources for community gardens.


Food Systems

What: Encourage and strategically locate community gardens

Why: Increase local food production and reduce food scarcity



Example #3: Stormwater




and implementing programs that reduce impacts from flooding and improve the City's CRS.

Action EP 4.4
Floodplain Regulations
Update City development regulations to ensure that any development and redevelopment in floodplain and flood fringe does not adversely affect the flood risks for other properties or communities as measured by increased flood stages, increased flood velocity, increased flows, or the increased potential for erosion and sedimentation, unless such impacts are mitigated in an equal or greater amount. Such regulations should provide exceptions for existing single family lots and developments with minor impacts. Such update shall include a stakeholder process, including but not limited to representatives from the environmental community, civil engineering, residential and commercial property owners and real estate development community.

Action EP 4.5
Watershed Studies
Complete all drainage basin studies to identify existing and future flooding and erosion damage stemming from drainage on private property.

C.5 Tree Canopy Conservation and Growth
Raleigh has historically been known as the "City of Oaks" and prides itself on its green image. Trees and forests are integral to Raleigh's identity and also contribute to quality of life and environmental health. Raleigh's trees and forests increase shading, absorb carbon dioxide, mitigate the effects of stormwater pollution, prevent soil erosion, and facilitate water infiltration into soil.
Raleigh has adopted a tree conservation ordinance as part of the zoning code. The ordinance requires the conservation of existing trees during the development of properties more than two acres in area. In low-density residential districts (R-6 and below), trees on 15 percent of the land area must be preserved. For all other zone districts, tree preservation requirements impact 10 percent of the land area.
As Raleigh grows, it will need to do more to protect its existing urban, suburban and native trees and forests, and should implement an aggressive program for replanting the City with native trees when appropriate, to restore the canopy that has been lost to land development.



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Action EP 4.5

Watershed Studies

Complete all drainage basin studies to identify existing and future flooding and erosion damage stemming from drainage on private property.

Action EP 4.5

Watershed Studies

Complete watershed studies to identify existing and future flooding hazards along with water quality needs and erosion concerns along with prioritized actions, measures, and capital improvement projects to improve conditions.

Watershed Studies

What: Include flood hazards, surface water quality protection and improvement, and capital improvement program recommendations in watershed studies

Why: Identify and mitigate flood risks to life and property, improve water quality in streams and lakes, and make cost effective investments





The success of cities in the 21st century will, to a significant degree, be decided by their ability to adapt to challenges presented by climate change and to become more sustainable and resilient. This Environmental Protection Element contains policies and actions required for the City of Raleigh to meet these and other challenges. In the process, the City will be improving the long-term health of local residents, regional natural resources, and ecological systems. By taking these actions, Raleigh will serve as a key player in the national reversal of sprawling development patterns and environmentally degrading development practices. Ultimately, the goal is to one day become carbon neutral while protecting natural resource assets and growing sustainably.

The City of Raleigh has a number of programs and initiatives designed to protect and enhance environmental and natural resources. These include its broad array of recycling services, the greening of its automobile fleet, the integration of green building and infrastructure programs, progress in reusing and conserving water, and work in managing stormwater as an integral asset. Adoption and implementation of this Element presents the City with an opportunity to surpass these efforts and to continue to move toward more comprehensive solutions to environmental challenges.

Raleigh's Climate Protection Commitment

Raleigh has joined forces with more than a thousand cities across the country by signing the U.S. Mayors Climate Protection Agreement to strive to meet or exceed Kyoto Protocol targets for reducing global warming pollution. The following actions from the Climate Protection Agreement shape the land use, transportation, and natural resource preservation policies in the Plan:

- *Adopt and enforce land use policies that reduce sprawl, preserve open space, and create compact, walkable urban communities.*
- *Promote transportation options such as bicycle trails, commute trip reduction programs, incentives for carpooling, and public transit.*
- *Increase the use of clean, alternative energy by, for example, advocating for the development of renewable energy resources, recovering landfill methane for energy production, and supporting the use of waste-to-energy technology.*
- *Maintain healthy urban forests; promote tree planting to increase shading and to absorb carbon dioxide.*
- *Make energy efficiency a priority through building code improvements and retrofitting City facilities with energy efficient lighting to conserve energy.*
- *Practice and promote sustainable building practices using the U.S. Green Building Council's LEED program or similar system.*



Some of the key issues this Element aims to address through its policies include:

- *The localized effects of climate change, including increased risk of droughts and flooding, and a fluctuating supply source of drinking water;*
- *The fight against climate change at the local level will require coordinated responses involving City operations as well as land use and transportation policy;*
- *The Neuse River is a valuable natural water resource that is impaired by excess concentrations of the nutrients nitrogen and phosphorous. As the capital city, located near the headwaters of the Neuse River Basin, Raleigh must help lead and champion measures to protect this state resource;*
- *The ongoing efforts to improve air quality must address the region's high degree of reliance on the automobile, loss of tree coverage, and loss of undeveloped land;*
- *The conservation of urban, suburban, and native forests will be important to Raleigh's environment and quality of life; and*
- *There is a need for greater sensitivity for aquatic and wildlife and natural habitat protection. Raleigh has the opportunity to become a national leader in sustainable environmental policy that helps protect and improve quality of life at the local and regional level.*

Further information associated with these topics, and how they relate to Raleigh, can be found in the Environmental Resources section of the City of Raleigh Community Inventory Report.



Revision Topic Areas

Environmental Protection

1. STAR Communities
2. Resilience
3. Building Rating Systems (LEED, etc.)
4. Alternative Energy and Transport
5. Green Infrastructure/Low Impact Development
6. Urban Forestry
7. Food Systems



Revision Topic Areas



Public Utilities

1. New Water Sources
2. Safe Drinking Water
3. Drainage Basin Plans



At This Meeting

- Topic tables
- Idea maps
- Draft documents
- Staff
 - Facilities and Fleet Management
 - Stormwater Management
 - Public Utilities
 - Office of Sustainability



What's Next?

- Visit the web page and send comments on draft elements
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