Resilience Planning in Washington, DC

October 26, 2018
Mission: OP guides development of the District of Columbia, including the preservation & revitalization of our distinctive neighborhoods, by informing decisions, advancing strategic goals, encouraging the highest quality outcomes, and engaging all communities.
OP’s Overall Planning Approach

- Hyperlocal
- Context specific
- Equity
- People-focused
- Data-driven
- Best practices

How OP plans
Why Plan?

DC’s population is growing

Between 2006 & 2016 Washington, DC added **110,000** residents.

Over the next 10 years we expect to add **115,000**.

**DC Population Growth: 1800 – 2015 & to 2045**

The Comprehensive Plan: District Elements

20-Year Vision—“Planning an Inclusive City”

Policies in Text & 2 Maps

Adopted as legislation in 2006

First amended in 2011

Second amendment cycle launched in 2016
Integrating new resilience policy into multiple Comp Plan Elements
Context for DC’s Resilience

- Nation’s Capital
- Home to 700K+ Residents
- Historic City
- Growing City
- Confluence of 2 Rivers
- Regional Economic Center
- Regional Infrastructure

DC’s Resilience
Flooding—A major hazard in DC

Types of flooding in DC:

- Riverine
- Tidal/Coastal storm surge
- Interior
Climate change also driving flood risks in DC

Projected Sea Level Rise
- 2020s: 2.4 inches
- 2050s: 1.4 feet
- 2080s: 3.4 feet

Extreme precipitation events will become more frequent & more intense.

Today's 100-year rain event (8 inches)
Why are we integrating Resilience into DC’s Comp Plan?

- Leverage **Comp Plan’s policy focus** on multiple citywide topics & neighborhoods
- Enhance **resilience of DC’s residents**
- Promote **resilient land use planning & development**
- Leverage existing **interagency plans & collaboration** to support resilience

- Protect DC’s historic **identity**, environmental **landscapes** & regional **infrastructure**
- Protect **public & private investments** in built environment for long-term community benefit
- Support **reliable systems** to support a growing city
- Recognize & maximize **co-benefits** of resilience solutions
Integrating Resilience & DC’s Comprehensive Plan:
What we accomplished:

✓ Held 2 Comp Plan Resilience Advisory Group workshops (June & Sept 2016)

✓ Conducted Resilience Advisory Group Survey & Interviews (June-Fall 2016)

✓ Completed Literature Review & Inventory of District & other plans/studies, best practices (summer-fall 2016)

✓ Talked and surveyed residents about resilience at 7 PlanDC public meetings & other community meetings (fall 2016-spring 2017)

✓ Community members proposed Comp Plan amendments on resilience (spring-summer 2017)

✓ Drafted & integrated new Comp Plan resilience policy (mid 2017-mid 2018)
Integrating Resilience & DC’s Comprehensive Plan:

**Lessons learned:**

<table>
<thead>
<tr>
<th>✓ Resilience is a broad topic</th>
<th>✓ Long-term trajectory of some issues</th>
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<tbody>
<tr>
<td>✓ Engagement with the public</td>
<td>✓ Operational vs. high-level policy</td>
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<tr>
<td>✓ Format for resilience integration into Comp Plan</td>
<td>✓ Overall timeframe</td>
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What else has DC done to promote resilience?

A few examples:

- Buzzard Point Vision Framework + Design Review Guide (DC Office of Planning)
- DC Silver Jackets (District & federal agency flood management coordination)
- Climate Change Adaptation Plan (District Department of Transportation)
- District Mitigation & Recovery Plans (DC Homeland Security & Emergency Management Agency)
- Sustainable DC (Department of Energy & Environment + others)
- Climate Ready DC (Department of Energy & Environment)
- Hazard Vulnerability Assessment (DC Homeland Security & Emergency Management Agency)
- Resilient DC (100 Resilient Cities)
Our 4 "Shocks"

Transportation System

Inequality

Affordable Housing

Over-reliance on One Industry

Our 4 "Stresses"

Terrorism

Flooding

Infrastructure Failure

Extreme Heat
Buzzard Point—Waterfront Design for Resilience
1. A Well Designed Waterfront Neighborhood

2. Dynamic Parks, Public Spaces, and Waterfront

3. A Well-Connected Transportation Network
Buzzard Point—Resilient Infrastructure, Buildings & Public Space

- Store rainwater & include green roofs & parks/bio swales
- Create floodable areas in new parks & retrofit existing parklands
- Ensure that bio swales & berms can be used as parks, paths, amphitheaters, etc.

- Design garages to flood/store floodwaters
- Consider breakaway walls & wind resistant windows in new construction to reduce storm damage
- Include green infrastructure techniques in public space & private development
Design a resilient & ecologically beneficial waterfront edge, consistent with Climate Ready DC

Install a living shoreline rather than a continuous bulkhead

Integrate water filtration gardens into public space, where streets terminate
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