Innovative Approaches to Guide Policy Decisions and Land Use

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Stan Slachetka, PP, AICP | Robert Dare, PP, AICP, MCIP | Nicholas Dickerson, PP, AICP
Purpose of this Session

Describe different **analytical** and **visual** planning tools designed to help guide land use and development decisions by incorporating **sustainability, resiliency and green infrastructure** into the **comprehensive planning process**.

Key topics will include:

- **Point System and Planning Visualization Maps**
  - Sustainability and Site Location
  - Resiliency and Risk
  - Other applications

- **Targeting Green Infrastructure Placement**
Planning Visualization Mapping

Create a planning algorithm and GIS mapping framework that:

- Allows policymakers to easily visualize and evaluate sustainability, as well as other complex planning issues such as resiliency and risk;

As applied to sustainability and site selection (e.g., housing):

- Identifies most appropriate sites based on sustainability factors;
- Adapts LEED-ND standards as a method for allocating points;
- Has been approved as part of court settlements and embedded into municipal ordinances; and,
- Is versatile and can be adjusted to different types of municipalities.
Elements of Planning Visualization Mapping for Affordable Housing

- Point system
- Color gradation mapping – Planning visualization map
- Point system ordinance preparation:
  - Mandatory affordable housing set-aside for multifamily residential developments
  - Percentage of affordable units on-site established by number of points, with remaining units provided by payment in lieu of construction
- Zoning enhancement areas
- Redevelopment areas (where applicable)
Using Planning Visualization Mapping to Plan for Affordable Housing

Woodbridge Township
Methodology: Overview

**Sustainability Factors**

- **Proximity to:**
  - Train stations
  - Bus stops
  - Schools
  - Public park, open space area, or recreational facility
  - Shopping center
  - Employment hub
  - Existing continuous sidewalks and crosswalks
  - Mixed-use development
Methodology
Proximity to Train Stations
Proximity to Bus Stops
Proximity to Bus Stops
Proximity to Schools
Proximity to Schools
Proximity to Open Space
Proximity to Open Space
Methodology: Final Tally of Points
Point Allocation by Parcel

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<th>3 to 4 points</th>
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Borough of South Plainfield Affordable Housing
Ocean Township Affordable Housing
Resiliency Index Point System Mapping
Purpose of Resiliency Index Point System Mapping

Create a GIS mapping framework that:

• Allows policymakers and members of the public to easily visualize and evaluate the resiliency and risk of their community.

• Can be embedded into future planning recovery work, including:
  – Comprehensive plans
  – Local zoning ordinances
  – Floodplain management plans and ordinances
  – Hazard mitigation plans
  – Capital investments
Using Resiliency Point System Mapping

Berkeley Township
Methodology: Overview

**Resiliency Factors**
- Proximity to:
  - Schools
  - Emergency Management Facilities
  - Evacuation Routes
  - Hospitals
- ...

**Risk Factors**
- Flood Hazard Areas
- Wetlands
- Sea Level Rise
- Storm Surge
- Densely Populated Areas
- ...

Methodology: Final Tally of Points
Resiliency Index Point System

Resiliency Index Point Score

- Zero (0) Points
- Up to 5 Points
- 5 to 10 Points
- 10 to 15 Points
- 15 to 20 Points
- 20 to 25 Points
- 25 to 30 Points
- 30 to 35 Points
Ecological Value: Lakewood
Non-Contiguous Cluster Ordinance
Targeting Green Infrastructure Placement
EXAMPLES OF GREEN INFRASTRUCTURE PLANNING

1. Washington Street Streetscape
   Hoboken, NJ
   Rain Gardens

2. West End Theatre District
   Allentown, PA
   Bio Retention Planters

3. Traders Cove Marina
   Brick, NJ
   Porous Pavement

4. 1st Avenue
   Hoboken, NJ
   Bioswale

5. Canal Crossings Redevelopment
   Area Plan
   Jersey City, NJ
   Rain Gardens, Bio Retention, Stormwater Harvesting

6. Carnegie Bldg. 804
   West Windsor, NJ
   Stormwater Harvesting, Green Roof
# Details of Potentially Vulnerable Parcels

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<thead>
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*Potential Area of Excessive Stormwater Runoff/Accumulation has been calculated with digital elevation modeling of the United States Geological Survey, and represents the generalized areas where stormwater may accumulate, or where there may be excessive stormwater runoff. If ground-water infiltration is impaired (e.g., by impervious surfaces and sealed, rigid soil surfaces), surface stormwater runoff may be taken to represent a worst-case scenario. This area displayed on this map are areas where 150 or more inches of stormwater would accumulate.*

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**Potentially Vulnerable Parcels**

**Beers Street Neighborhood Plan**

**Keyport Borough, Monmouth County, New Jersey**

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**NOTE:** This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but the secondary product has not been verified by NJDEP and is not State-authorized.
Redevelopment Overlay

• Greater densities permitted with incorporation of sustainable/resilient design elements
  • Written design concept statement required
  • Elements Include:
    • Coverage bonus with the use of pervious pavement
    • Rain garden requirement
    • Native and drought tolerant species requirement
    • Rainwater recycling is recommended
  • May substitute LEED standards
QUESTIONS?