1. **Introduction:** Tina Schneider
2. **What is an EcoDistrict:** Otto Condon
3. **Examples of EcoDistricts**
4. **Process towards an EcoDistrict:** Tina Schneider
5. **Performance Areas**
6. **Establishing:**
   1. Goals
   2. Objectives
   3. Strategies
7. **Supporting regulations**
8. **Work Session:** All
Bethesda: Core Principles of Sustainability
Performance Areas

“Phase 1”

Define Goals, Objectives & Strategies

“Phase 2”

Integrating County Goals & Regulations

“Phase 3”

Approaches for Achievement

“Phase 4”
Buildings (New, Existing, Retrofits)

Streets

Community
Bethesda as a System
8 Performance Areas

- Health & Well-being
- Equitable Development
- Community Identity
- Access & Mobility
- Habitat & Ecosystems
- Materials
- Water
- Energy
Phase 2:

Define Goals, Objectives, & Strategies

Phase 2:
Goal:
Promote equitable growth and opportunity

Objectives:

• Affordability
• Job creation
• Socially & economically diverse population
Strategies

- Affordable housing
- Incubator businesses
- Quality job opportunities
- Access to great libraries, schools, medical, etc.

- Generational mixes
- Age in place
- Social services
- ADA Compliance

Markus Dochantschi and company's runner-up Bronx plan.
Photo: Image: Pirate Design
Performance Area: Health & Well Being

**Goal:**
Promote health & well being

**Objectives:**
- Safe & functional parks, recreation and natural areas
- Healthy indoor and outdoor air quality
- Access to healthy, local, & affordable food
Strategies

- Parks & open space
- Economic opportunities for all
- Urban agriculture
- Healthy food sources
- Safe streets & pedestrian zones
- Civic spaces
- Reduce carbon emissions

- Community gardens
- Walkable sidewalks
- Links to networks
- Air quality standards
- 20 minute neighborhoods
- Dog parks
Goal: Create cohesive neighborhoods, & community vitality

Objectives:

- Create beautiful, artistic, accessible, safe places
- Foster social networks
- Create destination areas
Strategies

- Design standards for
- Create safe places
- Signature landmark, parks and buildings

- Green infrastructure
- Public Art
- Build in public open spaces

Destination places

Public Art

Landmark Buildings
Goal: Access to diverse, multi-model, & affordable options

Objectives:

• Transit choices
• Improved streets & sidewalks
• Low & zero emission vehicles
• Reduced vehicle miles traveled
Strategies

- Transit options & affordability
- Walkability
- Electric vehicle stations
- Bicycle networks
- Bike sharing & stations
- Reduce VMT
- Crosswalks

- Car sharing
- Traffic calming
- Sidewalk improvement
- Pedestrian friendly
- Transportation demand management
- Safe routes to schools
- Real-Time Arrival Info Monitors
- Pedestrian only zones
Goal: Annual net zero energy usage. Net positive

Objectives:

• Minimize demand
• Maximizing conservation
• Reduce carbon emissions
Strategies

- Use renewable energy
- Require higher building efficiency
- Incentivize zero-energy buildings
- Reduce Energy Consumption
  - Combined heat/power
  - Waste to energy
  - Energy retrofits
  - Energy Demand management
  - Smart grid
  - District energy
  - Building & street shading
- Construction performance standards
- Energy conservation retrofits
- Cap and trade emissions
- Geothermal
- Strive for carbon neutral/net positive
- Electric vehicle incentives & requirements
- Increase renewable energy use
- Non-Automobile transit areas
  - Solar orientation
  - Green roofs/cool roofs
  - Strict building regulations
Performance Area: Water

**Goal:** Reliable, clean, water for natural & human needs

**Objectives:**

- Improve water quality
- Reduce water consumption through conservation
- Reuse and recycle water
- Manage stormwater & building water discharge
Strategies

- Stormwater retrofits (ROW)
- Stormwater retrofits (buildings)
- Rainwater harvesting
- Increase porous surfaces
- District wastewater reuse

- New construction performance standard
- Greywater use
- Reduce potable water needs
- Reduce water consumption
- Green roofs
Performance Area: Habitat & Ecosystems

**Goal:** Enrich urban habitat to promote biodiversity, community, and livability

**Objectives:**
- Increased tree canopy
- Habitat connectivity/corridors
- Advance current & emerging watershed goals
- Stratified, diverse vegetation
Strategies

- Tree planting
- Species diversity
- Tree planting
- Green surfaces (green roofs, roofs
- ESD/LID stormwater management
- Habitats in ROW
- Habitat corridors
- Urban agriculture
- Create Parks
Goal: Zero waste and optimized materials management

Objectives:

1. Capture residuals (composting/recycling)

2. Optimize reuse and salvage materials

3. Minimize use of virgin & toxic materials
Strategies

- District composting
- District recycling
- Ample space for recycling
- Ample Space for Organic & Waste disposal
- Require use of recycled or natural materials
- Reuse & salvage materials

- Materials exchange centers
- Low or no VOC buildings
- Neighborhood Tool Library
- Waste to energy
Existing Supporting County Regulations

**Bill 17-06**: Energy Efficiency & Environmental Design

**Bill 3-14**: Buildings - Energy Efficiency - Energy

**Bill 29-07**: Environmental Sustainability, Climate Protection

**Bill 2-14**: Environmental Sustainability - Buildings – Benchmarking

**Bill 37-06**: Green Buildings property tax credit

**Bill 33-07**: Renewable Energy

**Bill 30-07**: Energy Efficiency

**Bill 10-14**: Buildings - Solar Permits –

**Bill 32-07**: Environmental Sustainability- Climate Protection Plan

**Bill 11-14**: Electric Vehicle Charging Stations

**Bill 35-07**: Energy and Environmental Advocacy

**Bill 34-07**: Greenhouse Gas Emissions: Environmental Sustainability, Climate Protection

**Bill 3-14**: Buildings - Energy Efficiency - Energy Standards

**Bill 7-14**: would create a preference for a certified green business in the County's procurement of goods and services.
National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System Permit Program (MS4). The MS4 program was established to reduce and eliminate stormwater pollution throughout the United States.
Existing Supporting County Regulations
Green Building Initiatives

**Bill 3-14:** Buildings - Energy Efficiency – Energy. Newly constructed buildings of 10,000 square feet or more or extensively modified buildings to achieve a Silver certification in the appropriate LEED rating system.

**Bill 2-14:** Environmental Sustainability Building Benchmarking. Requires owners of certain building systems to improve energy efficiency.

**Bill 9-14:** would require that 50% of the County's electric power usage be supplied with renewable energy by Fiscal Year 2015 and 100% by 2020.
Existing Supporting County Regulations

- Forest Conservation
- Carbon

Montgomery County is committed to reducing greenhouse gas emissions by **80% by 2050**.

Forest Conservation Law (Chapter 22A)

Shades of Green (CBD)

*Roadside Tree Law in Montgomery County?*
Multi-Agency Collaboration

Community
- Bethesda Green
- BUP
- The Public

Local Agencies
- DOT
- DPS
- General Services
- DEP

Regional Agencies
- COG
- DC Planning
- DC DEP
- Chamber of Commerce
- Consultants
- Economist
- County Council

Developer Community
- Housing
- Civic
QUESTIONS?

Otto Condon: ZGF Architects, Principal: otto.condon@zgf.com
Tina Schneider: MNCPPC, Environmental Planner, Tina.schneider@montgomeryplanning.org
Work session

1. Look at four (4) sections in Bethesda

2. Which three (3) performance areas are the most important ones for us to focus on for the next 20 year.

3. Identify the strategies for each performance area

4. Create your “vision” for Bethesda!!!
Water

Strategy Sheets
Imagine the Future of Bethesda

NCPC/ZGF Architects
~Have FUN~