Sustainability Commission
December 15, 2022
Citizen’s Time
AGENDA

Regular Meeting

Call to Order
Citizen’s Time
Old Business
  • Meeting Minutes November 15, 2022
  • Finalize status report to BOCS on recommendations to CESMP (45 mins)
New Business
  • Discuss Sustainability Commission strategy and priorities for 2023 (60 mins)
  • Presentation of CESMP Vulnerability Assessment (20 mins)
Commissioner’s Time
Adjournment
Old Business

• Meeting Minutes November 15, 2022
• Finalize status report to BOCS on recommendations to CESMP
New Business

• Discuss Sustainability Commission strategy and priorities for 2023
• Presentation of CESMP Vulnerability Assessment
Summary of Draft CESMP
Vulnerability Assessment Overview
Purpose of Vulnerability Assessment

- The Vulnerability Assessment provides a systematic way to evaluate the risk from a variety of natural hazards for a variety of asset categories in order to better understand where to focus adaptation measures to create a more resilient community.

- The Vulnerability Assessment focuses on:
  - Asset Exposure to Natural Hazards
  - Asset Sensitivity
  - Asset Adaptability
Status of Current Draft

- Current draft has been reviewed by the County Core Team.

- Significant coordination with Emergency Management for consistency with county’s draft Hazard Mitigation Plan, currently under review by FEMA.

- Continuing to collect GIS data to fill any gaps (drinking water infrastructure data from PWCSA)
County Assets

1. Safety & Security
2. Food, Water & Shelter
3. Health & Medical
4. Communications
5. Transportation
7. Natural Resources
8. Socially Vulnerable Populations
Safety & Security Assets

- Includes:
  - Police stations
  - Fire stations
  - Schools
  - Libraries
  - Other Government Buildings
Food, Water, and Shelter Assets

- Includes:
  - Agricultural Areas
  - Housing units
  - Drinking water support infrastructure
  - Wastewater pump stations

(Will include call-out box on effects of climate change on food supply chains)
Health and Medical Assets

- Includes:
  - Hospitals
  - Other Medical Centers
  - Long-Term Care Facilities
  - Dialysis Centers
  - Pharmacies
Communication Assets

- Includes:
  - Wireless Facilities
  - Cable Systems
  - Radio Towers
  - Data Centers
  - Financial Service Locations
  - Broadcast Facilities
Transportation Assets

- Includes:
  - Roads
  - Mass Transit
  - Railways
  - Airports
  - Port Facilities
  - Pedestrian
  - Heliports
Energy and Hazardous Materials Assets

- Includes:
  - Electrical Lines
  - Power Generation Plans and Substations
  - County-run Fuel Distribution Centers
  - Natural Gas Pipelines
  - Hazardous Materials Storage Sites

(Explanation of what makes a resilient energy supply to be included in adaptation actions and CESMP)
Natural Resources Assets

- Includes:
  - Streams
  - Resource Protection Areas
  - Tree Cover
  - Dams

*Included call-out box for urban heat island effect*
Socially Vulnerable Populations Assets

- Includes:
  - Equity Emphasis Areas

Methodology for Equity Emphasis Areas was adopted by the National Capital Region TPB. Tract-level Census data is used to identify communities that have significant concentrations of low-income and/or minority populations.
County Climate Hazards

- High Wind/Severe Storm
- Winter Weather
- Flood/Flash Flood
- Tornado
- Earthquake
- Drought
- Extreme Temperatures
- Wildfire
- Landslide
- Karst/Sinkhole
Vulnerability Assessment Methodology

- **Exposure**
  - Low, Medium, or High based on exposure to the hazard

- **Sensitivity**
  - Low, Medium, or High based on a qualitative assessment of how sensitive assets are to the hazard

- **Adaptive Capacity**
  - Called “Vulnerability Rating for Adaptative Capacity” to try to avoid confusion because:
    - Low = Low vulnerability due to high adaptive capacity
    - Medium = Medium vulnerability due to medium adaptative capacity
    - High = High vulnerability due to low adaptative capacity
Climate Hazards - Forecasting Local Extremes (FLEEx) Tool

- FLEEx Tool efficiently condenses data from general circulation models (GCMs) into a few key indicators that describe future hazard exposure for a local area.
- The FLEEx Tool was applied to analyze precipitation, extreme temperature, and drought.
## Vulnerability Assessment Results

<table>
<thead>
<tr>
<th>Climate Hazard</th>
<th>Safety and Security</th>
<th>Food, Water, and Shelter</th>
<th>Health and Medical</th>
<th>Communications</th>
<th>Transportation</th>
<th>Energy &amp; Hazardous Materials</th>
<th>Natural Resources</th>
<th>Socially Vulnerable Populations</th>
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<td>Strong Winds/Tornadoes</td>
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Vulnerability Assessment by County Asset

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<th>Asset Category</th>
<th>Combined Vulnerability Rating</th>
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Next Steps:

- This analysis will be used to inform development of draft adaptation actions.
- Sustainability Commission will review a draft list of adaptation actions in February, and provide recommendations.
- BOCS approved Emergency Management to receive $950k ‘earmark’ sponsored by Congressman Connolly. These projects will include:
  - $600,000 - PWC Flood Analysis Study
  - $115,000 - Localized flood resiliency plan for Protecting Vulnerable Flood-Prone Areas identified in the Flood Analysis Study
  - $235,000 - Expand flood detection and rainfall data collection capabilities
Commissioner’s Time
Adjournment