

Building a Climate Resilient National Capital Region

Vulnerabilities Homework (due 3/12/14)

For Risks & Vulnerabilities Workshop focused on Workforce, Communities, and Natural Systems (Tuesday, 4/1/14)

Product: Spreadsheet that contains:

- Top climate-related concerns (up to 4) that impact your organization's ability to carry out its mission / goals and objectives – either the concern directly affects your mission or how you operate;
- Brief description of how objectives are impacted; and
- Current and planned responses (work-arounds)

Questions: How do these concerns affect your mission? How do they affect the way you operate?

- What is your org's mission? What is it responsible for? Whom does it serve? What does your org do? What does your org have control over?
- Which are you responsible for? (some examples; not exclusive – see PPT for additional areas)
 - Workforce
 - Emergency response capabilities
 - Air and water quality and quantity
 - Public health EHS / occupational health
 - Regional economic vitality
 - Natural or landscaped areas
- How are your organization's goals & objectives vulnerable in light of a changing climate, now and in the future?

Complete one Homework Spreadsheet tab for each of the four top climate-vulnerable assets or capabilities. Note: You may not have all the information needed to fully characterize potential risks to your objectives or operations; for now, use your best judgment.

- Name (address) and/or type of natural or workforce/community system necessary to meet your organization's mission/goals/objectives (could include services)*
- Brief description of the system and why it is one of your organization's top 4 (How does it enable you to operate?)
- What is the scale of the impact relative to the Gradual and Extreme Events categories listed below, over several timeframes – today, in the 2020s and the 2050s? [Reference quantitative and qualitative data in the Climate Information Handout and Characterize Risks Webinar slides – referenced below.]

Gradual changes:

- Sea level rise
- Precipitation variability
- Higher average temperature

Extreme events:

- Sea level rise plus storm surge**
- Heavy precipitation
- Drought
- Heat Waves

- Classify the impact as minor, moderate or major
- Identify the system's critical threshold - Document whether there is a critical point at which the system or asset is directly or indirectly affected by changes in climate (e.g., particular temperature or elevation threshold (e.g., physical factors, design standards, operational capacity, etc.)
- Describe the impact on the system
- Describe the impact on your organization's goals and objectives
- Describe your organization's current and planned responses (or work-arounds)
- Provide any other information you feel would be useful for those participating in Risks & Vulnerabilities – Workforce, Communities, and Natural Systems - Workshop on 4/1/14 (e.g., links to useful documents, ability to provide studies/maps)

* If you have security sensitivities, provide a TYPE of asset/system rather than specifics.

**Storm surge height for exercise – 18.1 feet (Hurricane Category III level; 2009 FEMA Hurricane/storm surge study)

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References and Documents – http://www.mwcog.org/committee/committee/documents.asp?COMMITTEE_ID=252

- Characterize Risks Webinar slides (with notes) (2/19/14; Built - 9/26/13)
- Homework instructions and homework spreadsheet
- NASA Washington Metro Area Climate Information Handout, floodplain and DC storm surge maps (under October 22, 2013 header)
- Climate Science Information Webinar – Slides and Recording (9/20/13); 2/18/14 Slides to be posted)
- Resilience & Adaptation to Climate Risks Workbook (and Word and Excel documents) (under February 19, 2014 header)
- Orientation Webinar slides (under February 12, 2014 header)

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Submit Completed Spreadsheets by March 12th to: Sarah Lynagh, 571-526-7707, sarah.b.lynagh@leidos.com

Submit 4/1 Workshop participant names by March 24th to: Sarah Lynagh, 571-526-7707, sarah.b.lynagh@leidos.com [*Based upon your Top 4 risks, identify 2-3 participants for 4/1 Workshop (room capacity = 90)*]

Main Webpage for this effort: <http://www.mwcog.org/environment/climate/resilience.asp>