



July 21, 2016

Ms. Susan Julius
USEPA ORD
1200 Pennsylvania Avenue, N. W.
Mail Code: 8601P
Washington DC 20460

Re: Docket ID: EPA HQ-ORD-2016-0374, Comments on Draft Report: *Evaluating Urban Resilience to Climate Change, A Multi-Sector Approach*

Dear Ms. Julius:

The Association of Metropolitan Water Agencies (AMWA) is an organization representing the largest publicly owned drinking water utilities in the United States. AMWA has been engaged in discussions of how to manage water utilities in light of climate change for nearly a decade. AMWA is interested in research by the federal government to provide data, information and tools to help water utility managers plan for and respond to a changing climate in order to become more resilient.

AMWA agrees that resilience should be considered in the context of cities and communities, and the many sectors that support a vibrant community and supports the conceptual approach to develop the assessment tool. AMWA applauds EPA for organizing a broad-cross sector group of experts to help develop a broadly defined urban resilience tool.

This letter provides comments specific to the usability of the resilience tool and also provides some comments specific to the indicator questions. If you have any questions about the attached comments, please contact Erica Brown, Director of Sustainability and Climate Programs at brown@amwa.net or 202-331-2820.

Sincerely,

Diane VanDe Hei
Executive Director

Attachment

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General Comments

1. AMWA supports EPA's approach to develop the climate resilience assessment tool as a multi-sector tool that considers cross-sector connections across a community, as the resilience failure in one sector could have community-wide, cross sector effects that upset the resilience of the entire city.
2. To maximize the effectiveness of this potential tool, AMWA recommends that it be web-based, particularly since this approach would enable broad use across several city departments to maximize the multi-sector approach the tool supports. AMWA recommends an intuitive web-interface (cloud-based, and not a downloadable tool) that presents the indicator questions and, once the indicator questions are completed, maps the resilience score with a mouse-over capability to know they questions that are aligned with the numbers on the resilience charts. The web-based interface should include a very short "user manual" i.e., instructions for how to use the tool, as well as an "about" page, which briefly describes the purpose of the tool and process for developing it. The web-based tool should enable users to save their work and other processes to foster collaboration between many employees of a city of community.

If, based on its experience with the workshops and comments received, EPA recommends that cities use the tool by convening a citywide workshop or share questions via the web interface with various city departments, this should be noted as well. If there is no funding to develop such a web-based tool and interface, and the tool itself will be released via a text document download, AMWA recommends that EPA include a brief web overview/instruction manual. From our experience with other EPA tools of this depth and breadth, however (such as EPA'S CREAT tool and web databases), it is doubtful that a text version of this complex tool would be used as much as a web-based tool would be.

3. Many of the questions under the economy indicator category consider a city's resilience to any stressor that would negatively affect jobs, and not only climate change. As considering a city's resilience holistically requires analyzing a system of systems, AMWA recommends that EPA provide additional background context for the tool, noting that the economic resilience questions (and possibly other questions) may overlap with other stressors and questions beyond the topic of climate resilience.

Clarifying comments for the Indicator Questions

Appendix E – Qualitative Questions

1. Please ensure that questions can only be answered as yes/no for relevance. In the draft, some could be read differently, e.g., Q8 is not really asking for a number "i.e., how many" but should instead read, "Are the number of people in place to respond enough and is there adequate communication activity between them?"
2. It is good that there are many cross-sector questions included in the draft tool. The final tool report should ensure that for energy, transportation and water questions there is a question that

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asks if the sector considered the effect a loss in an interdependent sector would have on it (e.g., the effect of a loss in service in telecom on the water sector, the effect of washed out roads in the transportation sector on the water sector, etc.)

3. Q125– Please clarify whether the hierarchy of water uses is referring to water customers. Should the word say “users” instead of “uses”? Most water utilities will have customer that they deliver to, and these customers can be ranked by uses (such as agricultural or industrial). However the final delivery will be accounted for as to “customers.” In addition, there should be a similar question in the energy section, such as, “Is the water utility and wastewater utility up toward the top of the hierarchy for customers who receive power back sooner than others following a power outage?”
4. Q130 – Asking about nutrient loading is important, however it seems that this question is not specific enough. What is the purpose of this question? Is it to ask about current capacity for addressing nutrient loadings and whether the capacity is adequate? Is it to have the respondent address nutrient loadings following increased runoff periods, such as during storm conditions? Is it to consider how nutrient-loading capacities could change in the future?
5. Q132 – In the context of climate resilience, the question about redundant drinking water systems seems to be unnecessarily broad. Depending on the extreme event, a system may not need redundancy across the whole system (i.e., treatment, supply and distribution system.) Even in the case of contamination, most utilities will need to continue to operate the system to maintain fire flow and could issue a do not drink order if needed. EPA should consider the rationale for this question and whether it should be edited or removed. Would the addition of a question about the estimated time to return to service after an extreme event better serve the purpose of this question?

Appendix F - Quantitative indicators

1. If there are recommended national datasets to be used for these questions, AMWA recommends that the tool delineate this information up front. For example for #1442 (ratio of water availability to water consumption) it would seem that a national dataset on water availability should be used to respond to this question.