

**DRAFT  
MEMORANDUM**

TO: Co-Chairs: Federal Water Resources and Climate Change Workgroup:  
Jared Bales; Chief of Research and Science for Water; U.S. Geological Survey  
Charles Kovatch; Deputy Associate Director for Water; Council on  
Environmental Quality  
Michael Shapiro; Deputy Assistant Administrator for Water; US EPA

FROM: Co-chairs; Advisory Committee on Water Information (ACWI)  
Water Resources and Climate Change Workgroup:  
Paul Freedman; Non-Federal Co-chair  
Jeff Peterson; Federal Co-chair

DATE: July ~~14~~, 2016

SUBJ: Comments on Draft Report: *Looking Forward: Priorities for Managing Freshwater Resources in a Changing Climate*

We are pleased to provide you with comments of the Workgroup on the draft report *Looking Forward: Managing Freshwater Resources in a Changing Climate*. These comments reflect review and discussion of the report at meetings of the Workgroup on June 16 and July 14. This letter was approved by the Workgroup in its meeting on July 14.

In general, the Workgroup believes that the draft report provides a useful summary of progress and accomplishments to date in work to address the challenges that a changing climate poses for water resources. The report also describes recommendations and strategic actions that will substantially advance this work over the next several years. These actions will effectively build on the work originally outlined in the 2011 *National Action Plan* for climate change and freshwater resources. The report is a timely statement of the steps needed over the next several years to continue progress in this important area.

Suggestions to clarify and strengthen the draft report in each of its four major topic areas are provided below. The Workgroup appreciates the work of members Adam Carpenter, Carrol Collier, and Jeff Manning in leading the development of the comments provided below.

## Data and Research

- 1) **Support for Recommendations:** The Workgroup supports the document recommendations on the need to fill critical data gaps and improve analyses and access. The foundation of an action plan begins with data and moves to information, planning, decisions and action. Having the right data and analyses to support this process is key.
- 2) **Address Wetlands:** The premise of this section is to evaluate the current state and future goals for Data and Research for the Federal interagency Water Resources and Climate Change Workgroup. Wetlands considerations, providing essential ecosystem services for water quality and resiliency, should be integrated throughout Section 1 and the entire document as appropriate. Datasets such as the National Wetlands Inventory-Dataset, the National Wetlands Inventory Dataset-Version 2.0, and the EPA National Wetlands Condition Assessment are all examples of information that can be referenced. A possible location for this information to be integrated in the document is in the section 1.1 Recommendation: *Sustain and Expand Monitoring Networks and Data Collections on Hydrologic and Meteorological Conditions and Water Demand*.
- 3) **Recognize Declining Trends in Municipal Water Demand:** Projections are a large part of the proposed process, however, the input information for these models should reflect the most up-to-date and appropriate information possible. Municipalities have seen a declining demand for water, despite population increases. Any trends towards declining demand in these areas, and other recent trends not already captured, should be incorporated into the long-term reference models (such as those mentioned in section 1.3.2).
- 4) **Expand Consideration of Water Supply Technologies:** Water supply technology has grown more important as harsh droughts ensue in parts of the country and enhancing the water supply has led to the development of many new innovations. The scope of section 1.4, addressing water supply technology, should be beyond power plant intake and desalinization to include additional technologies such as water reuse. Other countries are more effective than the US in utilizing water reuse to meet increasing demands, and we need more focus on how regionally we can take advantage of reuse opportunities. Also, the water nexus issue should be explored to better incorporate all nexus interactions that impact water resources and create opportunities, including the nexus with energy, food, domestic uses, and industry.
- 5) **Address Work to Improve Downscaled Climate Projections:** The Workgroup recognizes that the report is not an inventory of work already underway and agrees that comprehensive descriptions of all Federal actions in this area are not needed. In the case of work to improve the quality and accessibility of downscaled climate projections related to water, the significant interest in the topic requires that more information concerning Federal agency efforts in this area be provided. Without this information, readers may conclude that new initiatives to address this need are necessary.

## Planning and Decision Support

- 1) **Support for Recommendations:** The Workgroup supports the recommendations, and specifically supports the focus on a watershed approach. The Workgroup also supports the emphasis on using planning to move to decisions and actual actions. The Workgroup also supports the recommendation for more training and outreach to help with regional and local planning.
- 2) **Address Ecosystem Services:** The Workgroup believes that the use of ecosystem services is a critical strategy for both adaptation and mitigation and needs to be addressed in this section of the report. It is important to have guidance on how to include green infrastructure and ecosystem services assessment into resiliency plans, broader than the existing mention of wetlands.
- 3) **Driving Response Actions:** Federal agencies should consider not only [how they can](#) provide guidance, but how they can assist in driving the development of regional or watershed climate change action plans.
- 4) **Support for Improved Regional Coordination Among Federal Agencies:** The proposed work to strengthen cooperation among Federal agencies engaged in climate change adaptation decision support at regional levels is important and the Workgroup supports the proposed Strategic Action in this area. It is important, however, that Federal agencies not only develop regional teams, but develop a network of sub-national members with which to work. For example, there is a need to connect with the network of state and county planners (e.g.: [various chapters of](#) the American Planning Association (APA)). Alternatively, regional Federal teams could reach out to the regional planning community.
- 5) **Address Multiple Ecosystem Services and Watersheds:** This section addresses only one type of ecosystem service – wetlands. While they are important, this document should address other valuable assets including forests and active river areas. These areas are critical to climate change mitigation and adaptation. It is also important to stress the need to conduct climate change assessments and plans at the watershed level. Upstream/downstream effects are critical.
- 6) **Add Climate Change to Silver Jackets Guidance:** Silver Jackets teams in states across the country bring together multiple state, federal, and sometimes tribal and local agencies to learn from one another and apply their knowledge to reduce the risk of flooding and other natural disasters in the United States and enhance response and recovery efforts when such events do occur. Federal agencies are now developing guidance for the Silver Jackets program and climate change should be addressed in this guidance.

## Training and Outreach

- 1) **Support Recommendations:** The Workgroup agrees that training and outreach is an important challenge and that the problem assessment and proposed actions provided in the report are needed and given appropriate attention.
- 2) **Consider Role of Water Resource Research Centers in Providing Training on Water and Climate Change Topics:** Water Resources Research Centers at State land grant colleges conduct valuable research on water resources within the State and have substantial expertise related on water issues, including climate change. Federal agencies should work with Water Resources Research Centers to identify options for ~~the~~ expanding the role of the Centers in providing training and information on climate change and water issues.
- 3) **Seeking Innovative Outreach Methods:** The Workgroup recognizes the important progress made in the development of the Climate Resilience Toolkit and related internet based information sources. Wherever possible, Federal agencies should supplement this information with tools, such as You-Tube videos, that engage diverse audiences in the use of these tools and information.

## Workgroup Management and Coordination

- 1) **Support Recommendations:** The Workgroup agrees that the Federal interagency workgroup on climate change and water resources is playing an important role in implementing diverse actions to improve adaptation to climate change by water resource managers and that this work should continue as recommended in the report.
- 2) **Commit to Engagement with ACWI Climate Workgroup:** The report describes work related to the continued support of the Federal Workgroup by Federal agencies but does not address the role that the ACWI Climate Workgroup plays in engaging stakeholders in advising Federal agencies in this area. The report should more specifically commit to continued support of the Workgroup as part of the ACWI and commit to identify opportunities to draw on the Workgroup in development of climate adaptation and water resources plans and programs.

We look forward to working with you on this important matter.

cc: Water Resources Adaptation to Climate Change Workgroup  
ACWI Chair