

**POTENTIAL EXPERT PAPER TOPICS**  
***The Value of Water to the U.S. Economy Report***  
**DRAFT for SAB Consultation**  
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Fifteen potential topics are described here – the first seven are extensions of the sector-based approach used to organize the Background Report, and the next eight are cross-cutting in nature.

We anticipate including about ten expert papers in the report.

Topics 1 - 7: Analysis of water use by economic sector

- A. The questions below would guide the development of separate papers for the following economic sectors:
  - i. Public supply and domestic self-supply
  - ii. Agriculture
  - iii. Manufacturing
  - iv. Mining and energy resource extraction
  - v. Electric power generation
  - vi. Commercial fishing
  - vii. Recreation and tourism
- B. General questions for each sector analysis:
  - i. What are the major drivers of growth in this sector, and how do they impact the value of water?
  - ii. How does water contribute to competitive and comparative advantages within this sector?
  - iii. How do water quality and water supply affect productivity in this sector?
  - iv. How do investments in infrastructure affect the value of water to this sector?
  - v. What benefits to this sector could accrue from improved information on the value of water?
  - vi. What specific data, methods, or models would improve estimation of the value of water to this sector?
  - vii. Given currently available information, what is the best estimate of the value of water to this sector?
  - viii. Do projected trends suggest potential changes in the supply or quality of the water resources upon which this sector depends? If so, what are the implications of these changes?

### Topic 8: Water use in sectors with high growth potential

- A. Are there sectors of the economy with significant growth potential in which water is likely to have a high marginal value?
  - i. For example, see <<http://www.doleta.gov/business/industries/>> -- advanced manufacturing, automotive, biotechnology, construction, geospatial technology, health care, hospitality, information technology, retail
- B. If so, how might the availability and suitability of water resources shape, assist, or constrain the growth of these industries?
- C. What specific data, methods, or models would improve estimation of the value of water use by these sectors?

### Topic 9: Infrastructure

- A. How is the value of water affected by investments in infrastructure, including:
  - i. Public water supply, treatment, and distribution systems?
  - ii. Municipal wastewater and storm water collection and treatment systems?
- B. How do investments in other types of infrastructure (e.g., energy supply and distribution infrastructure; transportation infrastructure) affect the value of water?
- C. How is the value of water impacted by the integration of water infrastructure with other infrastructure (e.g., transportation, energy, etc.)?

### Topic 10: Water markets

- A. How is the development of water markets affecting the value of water to the U.S. economy?
- B. What factors have shaped (or are shaping) the development of these markets?
- C. How does information on the value of water inform the design and operation of water markets?
- D. What specific data, methods, or models would improve estimation of the impact of water markets on the value of water to the U.S. economy?

### Topic 11: Markets for ecosystem services

- A. How is the development of markets for ecosystem services affecting the value of water to the U.S. economy?
- B. What factors have shaped (or are shaping) the development of these markets?
- C. How does information on the value of water inform the design and operation of markets for ecosystem services?
- D. What specific data, methods, or models would improve estimation of the impact of markets for ecosystem services on the value of water to the U.S. economy?

### Topic 12: Pricing

- A. How can improved pricing information increase the value of water to the U.S. economy?

- B. What pricing information is lacking and causing water to be incorrectly valued?
- C. What sectors of the U.S. economy are most impacted by incomplete pricing information?
- D. How should gaps in pricing information be filled?
- E. What specific data, methods, or models would improve this pricing information?

Topic 13: Domestic macro-trends

- A. How is the value of water impacted by domestic population growth, urbanization, climate change and other macro-trends?
- B. What sectors and regions are most affected by these domestic trends, and how does this affect the value of water to the U.S. economy?
- C. What decisions related to these trends are likely to have the greatest impact on the value of water to the U.S. economy?
- D. What specific data, methods, or models would improve estimation of the value of water use affected by domestic macro-trends?

Topic 14: International macro-trends

- A. How is the value of water impacted by global population growth, urbanization, climate change and other macro-trends?
- B. What sectors and regions are most affected by these global trends, and how does this affect the value of water to the U.S. economy?
- C. What decisions related to these trends are most likely to have the greatest impact on the value of water to the U.S. economy?
- D. What specific data, methods, or models would improve estimation of the value of water use affected by international macro-trends?

Topic 15: Analytic issues

- A. What changes in data, methods, and models are necessary to provide consistent, scientifically sound, and timely information to support water-related decision-making by public and private decision-makers?
- B. What uses of the information are most important for maximizing the value of water to the U.S. economy?