



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**NATIONAL RISK MANAGEMENT RESEARCH LABORATORY**  
CINCINNATI, OHIO 45268

**June 29, 2009**

**MEMORANDUM**

**SUBJECT:** Consultation on the Aging Water Infrastructure Research Program

**FROM:** Sally Gutierrez, Director */signed/*  
Office of Research and Development  
National Risk Management Research Laboratory

**TO:** Vanessa Vu, Director  
Science Advisory Board Staff Office

This is to request that the Science Advisory Board (SAB) Environmental Engineering Committee (EEC) conduct a consultation of the Office of Research and Development's Aging Water Infrastructure Research Program.

**Background**

In support of EPA's Sustainable Water Infrastructure Initiative, the Office of Research and Development (ORD) initiated a research program in 2007 to improve and evaluate innovative technologies and techniques for reducing the cost and improving the effectiveness of operations, maintenance, and replacement of aging and failing systems for drinking water and wastewater treatment and conveyance. The outputs from this research program are intended to assist EPA's program and regional offices to implement Clean Water Act and Safe Drinking Water Act requirements; to help states and tribes meet their programmatic requirements; and to assist utilities to more effectively implement comprehensive management of drinking water and wastewater treatment and conveyance systems, provide reliable service to their customers, and meet their statutory requirements. ORD's 2007 Innovation and Research for Water Infrastructure for the 21<sup>st</sup> Century Research Plan (600/X-09/003) proposes work relating to infrastructure condition assessment, system rehabilitation, infusion of advanced design and management concepts, and evaluation of innovative treatment technologies. ORD's 2007 Innovation and Research for Water Infrastructure for the 21<sup>st</sup> Century Research Plan (600/X-09/003) is available on the following web site: <http://www.epa.gov/awi>.

## Specific Request

ORD requests that EEC provide advice on whether the program goals, research focus areas, research approach, research partners, and communications and program interactions are properly directed to have a significant national impact of the major technical issues facing our nation's aging water infrastructure. Specifically, ORD asks that the EEC address the following charge questions:

### Consult Charge Questions

1. The two major goals of this program are to:

generate science and engineering to improve and evaluate innovative technologies and techniques to reduce costs and improve operational efficiency, maintenance, and replacement of aging and failing drinking water, wastewater treatment and conveyance systems; and

assist EPA's program and regional offices, states and tribes to meet their program requirements, and assist utilities to more effectively implement comprehensive asset management, provide reliable service to their customers, and meet their Clean Water Act and Safe Drinking Water Act requirements

Given these goals, is the program appropriately focused to make a significant national impact on the major technical issues facing our aging water infrastructure? Could the program goals be refined to improve program effectiveness?

2. Are the research focus areas (condition assessment, system rehabilitation, advanced concepts, and innovative treatment technologies) and the related cross-cutting research likely to result in tangible impacts that will support the program goals? Do the program activities and projects appropriately support the current program goals or are additional activities or projects necessary?
3. The sequential research approach of the program is designed to develop national and regional assessments, analyze the "state of the technology", and move the "state of the technology" forward through innovative field demonstrations. Is this sequential research approach appropriate to address the goals of the program? Is the program's concentration on infusing innovation through field demonstrations appropriate?
4. Are we collaborating with the appropriate research partners? Are there other potential partners that we should engage?
5. Through our communication and program interactions, are we engaged with the appropriate stakeholders to understand the research needs in this area, attain the goals of the program and to transfer the research and technology demonstration results to the appropriate users?

If you have any questions about this request, please contact Dr. Thomas Speth, Acting Division Director, Water Supply and Water Resources Division at [Speth.thomas@epa.gov](mailto:Speth.thomas@epa.gov) or 513-569-7208.