

**WRITTEN
TESTIMONY**

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HEARING ON

**The Office of Research and Development FY 2013 President's Budget
Before the**

U.S. HOUSE OF REPRESENTATIVES

**COMMITTEE ON SCIENCE, SPACE AND TECHNOLOGY
SUBCOMMITTEE ON ENERGY AND ENVIRONMENT**

March 6, 2012

Good morning Chairman Harris, Ranking Member Miller and other members of the Subcommittee. My name is Lek Kadeli, and I am the Acting Assistant Administrator for EPA's Office of Research and Development (ORD). It is a pleasure to be here with you this morning to discuss the President's FY 2013 Budget for EPA's research and development.

The FY 2013 budget demonstrates EPA's commitment to its core mission of protecting human health and the environment for American families while recognizing the challenging realities of the fiscal climate. The FY 2013 budget is the result of EPA's ongoing efforts to carefully consider potential cost savings in a responsible manner while supporting innovative safeguards that are essential to understand and address environmental challenges and protect human health.

It has taken a lot of hard work and difficult choices to reach this balanced approach, and while we had to make sacrifices, we have maintained our

commitment to the priorities of this agency and ensured the protections the American people expect and deserve.

ORD conducts intramural and extramural research across the broad spectrum of disciplines necessary to support the mission of EPA.

In addition to the cutting edge science that we have traditionally pursued, we are investing in research on innovative approaches and technologies along with promoting synergies between environment and public health protection in a context that reflects broader community interests and needs. In 2011, to improve effectiveness and efficiency, the Office embarked on a major effort to strategically align its diverse research portfolio around the central and unifying concept of sustainability. Through direction laid out in ORD's six highly integrated *Strategic Research Action Plans*, we will deliver the science and engineering solutions the Agency--and the nation—need, while advancing the research needed to realize an environment that is not only less polluted, but also healthy, productive, and sustainable.

EPA's six integrated and trans-disciplinary research programs provide an innovative and systematic approach to solving some of the nation's highest-priority environmental challenges. Our six program areas are:

- Air, Climate, and Energy Research
- Safe and Sustainable Water Resources Research
- Chemical Safety and Sustainability Research
- Sustainable and Healthy Communities Research
- Human Health Risk Assessment

- Homeland Security Research

I would like to highlight a few examples of the innovative solutions that we are pursuing and that I believe would be of interest to the Committee.

- First, EPA is collaborating with the National Institutes of Health (NIH), the National Institute of Environmental Health Sciences (NIEHS) and the Food and Drug Administration (FDA) to bring complementary expertise together to develop faster predictions of how chemicals could impact human health and the environment. EPA's contribution to this intergovernmental partnership, TOX 21, is using robotically enabled high-speed screening to test the potential toxicity of 10,000 different chemicals. This will help us more-efficiently prioritize chemicals for in-depth testing, over time will reduce animal usage in testing and reduce the costs, and – most importantly – will provide data that will enable us to better predict whether a chemical exposure triggers changes that increase the potential for human health or environmental impacts.
- We are partnering with five large U.S. cities (Cincinnati, OH; Dallas, TX; New York, NY; Philadelphia, PA; and San Francisco, CA) to investigate solutions to water security issues at water utilities. These cities are evaluating software developed by ORD which is a key component of a contamination warning system that rapidly detects hazardous contaminants in drinking water systems and is a critical technology for the detection of terrorist attacks on drinking water systems.

- EPA is also engaged in collaborative efforts with municipalities to improve and achieve more resilient stormwater management approaches by sustainably addressing stormwater and septic runoff overflows. At a time where we face critical challenges in maintaining and upgrading our existing water and wastewater infrastructure, we need resilient and affordable solutions that meet many objectives at once. For example, we are supporting research and implementation of “green” infrastructure approaches, which provide diverse economic, water quality, and community benefits for communities.
- Lastly, EPA’s is helping to develop a multi-agency National Atlas of ecosystems services. This national Atlas will be a resource to states, communities, industry, and the public when assessing site-specific environmental conditions.

Investing in Cutting Edge Research

EPA's 2013 budget request makes major investments in its science and technology account of \$807 million, or almost 10 percent of EPA’s total request. This request includes \$576 million for research, including \$81 million in research grants and fellowships that will be awarded to scientists and universities throughout the country to conduct targeted research as part of the Science to Achieve Results (STAR), a competitive, independently peer reviewed program. This important research includes children’s health, endocrine disruption, innovative water infrastructure approaches, and air monitoring research. Building upon ongoing research and collaborating with the Department of Energy and the U.S. Geological Survey, a total of \$14 million is requested to increase our understanding of the potential impacts of

hydraulic fracturing on air quality, water quality, and ecosystems. The EPA also will release an Interim Report on the Impacts of Hydraulic Fracturing on Drinking Water Resources in 2012.

Conclusion

In conclusion, we have a strong tradition of scientific excellence in science at EPA, which this budget builds upon. I look forward to working with the Committee to address current and emerging environmental problems and seek innovative solutions that will help our Agency protect the environment and human health. Thank you for the opportunity to appear before you today.