

# EPA's Strategic Foresight Pilot Project



A pilot project for reinvigorating  
foresight into  
EPA's planning and decision-making

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# Our Unpredictable Changing World



# Objectives of the Strategic Foresight Pilot

*A systematic inquiry designed to identify emerging and potential issues*

- Examine social, economic, institutional, and technological forces that are likely to drive future changes in environmental conditions
- Prepare for emerging threats to human health and the environment
- Take early advantage of emerging opportunities to improve efficiency and/or effectiveness
- Develop strategies and take action to advance sustainability goals
- Rebuild foresight capacity as a part of how the Agency does business to create a more effective, efficient, and resilient EPA

# Promotion of Strategic Foresight

- OMB A-11 (2016)
  - Section 230 – Agency Strategic Planning
  - Section 270 – Performance and Strategic Reviews
- National Academy of Sciences/National Research Council (NAS/NRC) – Sustainability. Concepts in Decision-Making: Tools and Approaches for the US Environmental Protection Agency, 2014
- (NAS/NRC) – Science for Environmental Protection: The Road Ahead, 2012

*Please see the slides at the end of this presentation for excerpts from these documents*

# Organization of the Strategic Foresight Pilot Project



**Joint Strategic Foresight Team**  
Office of the Chief Financial Officer  
Office of the Science Advisor

# Strategic Foresight Community of Practice

- 550+ EPA employees on email list
- Build agency capacity and demand for Strategic Foresight
- Provide broad agency input to the Lookout Panel
- Socialize relevant emerging issues/developments
- Promote collaboration – both within and outside of EPA
- Engage with and leverage external futures/foresight groups
- [Strategic Foresight Community of Practice SharePoint Site](#)

# Lookout Panel

- Representatives from most EPA Headquarters' Organizations and several Regional Offices
- Commitment of at least 10 percent of their time over one year
- Tasks:
  - Ongoing engagement with Agency experts and managers
  - Scanning of literature for emerging issues
  - SharePoint Horizon Scanning Database
  - “Strategic Discussions” with thought leaders
  - Benchmarking organizational practices
  - Briefing EPA senior leadership

# Strategic Discussions

- Brad Allenby (Arizona State University)
- Paul Anastas (Yale University)
- John Balbus (National Institute of Environmental Health Sciences)
- Tom Burke (EPA Science Advisor)
- Paul Gilman (Covanta Energy)
- Bob Kerr (Pure Strategies, Inc.)
- Janet Ranganathan (World Resources Institute)
- William Reiley (William Reiley Fund, former EPA Administrator)
- David Rejeski (Woodrow Wilson International Center for Scholars)
- Gus Speth (Vermont Law School)

# Overarching Themes from Expert Discussions

- Public outreach and communication will be even more critically important
- EPA's silos are a barrier to progress
- EPA should leverage external resources and develop more partnerships
- EPA needs to align its processes to continually accommodate for rapid change

# Preliminary Issue Areas

1. EPA at 50: Enhancing the Agency's Capabilities for the Future
2. Incoming! The Data Challenge
3. Preparing for Catastrophe: Infrastructure
4. Beyond the Tipping Point: Rapid Global Change
5. NextGen Pollutants
6. New-Sense Technologies: Environmental Monitoring/Sensors
7. Inevitable: Transformational Biotechnology
8. Resourceful by Nature: Design for Sustainability
9. Completing the Circle: Embedding Supply Chain Considerations in EPA's Work

# Timeline

October

- Lookout Panel and Community of Practice organized and trained on strategic foresight
- Interviewed management regarding potentially significant and emerging issues that could impact EPA
- Horizon scanning and strategic discussions with thought leaders to Identify emerging issues
- Refined preliminary topics and developed recommendations for a small set of emerging opportunities and challenges
- Discussed preliminary findings/recommendations with Agency experts and managers, and refined findings and recommendations
- Assess pilot and develop recommendations for institutionalizing strategic foresight at EPA
- Discuss approach, findings and recommendations with Agency senior leadership
- Integrate Foresight into Agency planning and performance processes<sup>18</sup> (Strategic and Annual Planning, Strategic Reviews, ERM)

April-  
May

June

July

August



# **Office of Management and Budget**

## *Circular No. A-11: Preparation, Submission, and Execution of the Budget (2016)*

### **SECTION 230—AGENCY STRATEGIC PLANNING**

Incorporating strategic foresight into the strategic planning and review process is one method for facilitating the achievement of long-term goals. Strategic foresight is a method for systematically considering a longer time horizon and broader scope of issues than other forms of planning. Integrating strategic foresight in the planning process also facilitates a systems approach to problem solving and may help an agency better prepare for future threats or take early advantage of emerging opportunities. The systems approach of strategic foresight also encourages organizational communication to avoid the “silo effect,” in which problems are viewed in isolation. Foresight methodologies may vary by agency depending on its mission and operating environment, but examples of strategic foresight methodologies include scanning, trend analysis, and scenario planning. Opportunities for cross-agency foresight coordination are also encouraged to be explored where appropriate.

### **SECTION 270—PERFORMANCE AND STRATEGIC REVIEWS**

Inform long-term strategy: Inform long-term strategic decision-making by agency leadership and key stakeholders, including OMB and Congress; and inform the development of the Strategic Plan at the beginning of each new Administration. Strategic foresight methodologies, conceptualized as the capacity to think systematically about the future to inform strategy development, represent one such approach to inform long-term decision-making and can be used as a planning tool to prepare for change. Agencies are encouraged to think and, where applicable, apply core elements of strategic foresight as a part of their review process, including framing, environmental scanning, forecasting potential, identifying probable and plausible future scenarios, and using those scenarios to inform the development of strategic actions.

**NAS/NRC**

*Sustainability Concepts in Decision-Making:  
Tools and Approaches for the US Environmental  
Protection Agency, 2014*

“The ability to anticipate, assess, and manage challenges *is at the heart of sustainability practices* and therefore plays a major role in addressing new issues and evaluating strategies that can minimize potentially deleterious effects.”

## *Science for Environmental Protection: The Road Ahead, 2012*

“The committee concurs with the [NACEPT’s] observations that although EPA has demonstrated the ability to create and implement solutions to new challenges in some cases, emerging challenges need to be approached in a more integrated and multidisciplinary way. The committee also concurs with NACEPT’s recommendation that EPA include “environmental foresight” or “futures analysis” activities as a regular component of its operations.”

“The committee recommends that EPA engage in a deliberate and systematic “scanning” capability involving staff from ORD, other program offices, and the regions. Such a dedicated and sustained “futures network” (as EPA called groups with a similar function in the past), with time and modest resources, would be able to interact with other federal agencies, academe, and industry to identify emerging issues and bring the newest scientific approaches into EPA.”