

# NAS Report “Sustainability and the US EPA”

prepared for EPA’s Clean Air Act Advisory Committee

April 25, 2012

Tamara Saltman  
EPA Office of Air and Radiation

# Overview of the NAS Report

- The report was prepared by a committee of the National Academy of Sciences (NAS) at the request of the Administrator, who asked the NAS in November 2010 to come up with a set of recommendations for incorporating sustainability into EPA programs and policies.
- Specifically, the NAS committee was tasked to answer four key questions:
  - What should be the operational framework for sustainability for EPA?
  - How can the EPA decision-making process rooted in the risk assessment/risk management paradigm be integrated into this new sustainability framework?
  - What scientific and analytical tools are needed to support the framework?
  - What expertise is needed to support the framework?

# Key Recommendations

- The report used the definition of sustainability from E.O. 13514: “creat[ing] and maintain[ing] conditions under which humans and nature can exist in productive harmony that permit filling the social, economic, and other requirements of future generations” and noted that sustainability is both a process and a goal.
- The fundamental recommendation of the report is that EPA should continue to carry out its historical mission to protect human health and the environment in a manner that optimizes the social, environmental, and economic benefits of its decisions.
  - In other words, EPA should consider how to maximize benefits in addition to how to minimize risks
  - The recommendation recognizes both the limitations of our legal authorities and that operationalizing it will be a long process.
- The report recommends that EPA hire multi-disciplinary professionals to shift to a more cross-cutting mindset and culture.

# Key Recommendations, cont.

- The report:
  - concludes that risk-based methods are important tools but not sufficient in the face of the many complex problems that put current and future generations at risk. More sophisticated tools are needed, and they are becoming increasingly available (e.g. life cycle assessment, ecosystem-service valuation and environmental justice tools, etc.).
  - recommends that EPA should incorporate sustainability considerations into its decisionmaking with upfront consideration of sustainability options and analyses that cover the three sustainability domains (social, environmental and economic) as well as trade-offs.
  - lays out a framework for how EPA might want to consider doing “sustainability analyses” in circumstances we think it is appropriate.
- The analytic framework recommended in the report will be further developed in a broader study underway now by the National Advisory Council for Environmental Policy and Technology (NACEPT) - "Sustainability Linkages in the Federal Government."

# Stakeholder input

- Administrator Jackson asked all EPA offices to reach out to key stakeholders to get their thoughts on the report's recommendations.
- The Administrator has also tasked the Agency's National Advisory Council for Environmental Policy and Technology (NACEPT) Committee to develop its own advice on how the Agency might consider implementing recommendations in the National Academy of Sciences Report on Sustainability and EPA.
- OAR is asking the members of CAAAC, who represent a diverse range of stakeholder groups and perspectives, for your ideas on how to respond to the recommendations.
- The comments will be compiled and added to the comments from other stakeholders collected by other EPA programs and regional offices.

# Examples

- Kendal Station NPDES permit process evolved into a project to convert the existing power plant in Boston into a combined heat and power plant
  - Allowed the power plant to continue providing affordable energy
  - Reduced 95% of discharges of heated water to and cooling water intakes from the Charles River
  - Provided additional steam energy to an existing system
  - Provided habitat and fishery restoration funds
- Allow transformation of county land banks and abandoned/empty lots into “green infrastructure” for stormwater retention as part of consent decree in Cleveland, OH
  - Improved water quality
  - Help revitalize communities with numerous abandoned lots by providing jobs and reducing blight
  - Adds to community green space
  - Lower energy costs compared to other stormwater treatment options

# Some OAR Efforts are Already Advancing Sustainability

Existing projects that are helping stakeholders maximize their benefits in addition to minimizing risks include:

- Energy Star
- SmartWay
- OAR/OPPT/ORD Green Chemistry and Engineering workgroup
- State and local government climate and energy tools
- Indoor air environments and healthy homes efforts
- BACT permitting to improve on-site energy efficiency
- Output-based standards

# Questions for Discussion

1. Is sustainability, as defined by the economic, environmental, and social consequences of an action or decision, an appropriate lens that EPA should be using to assist in decision-making?
2. Are there any particular examples of public or private sustainability efforts that you have experience or knowledge of that could help inform EPA's deliberations?
3. What scientific or analytical tools would be most helpful for EPA to develop as we consider incorporating sustainability more explicitly into our programs and decisions? Are you aware of existing tools that we should adopt?
4. How can EPA, states, or local partners take advantage of opportunities to advance sustainability in regulation, enforcement, compliance assistance, SEPs, technical assistance and/or other core functions and media programs?

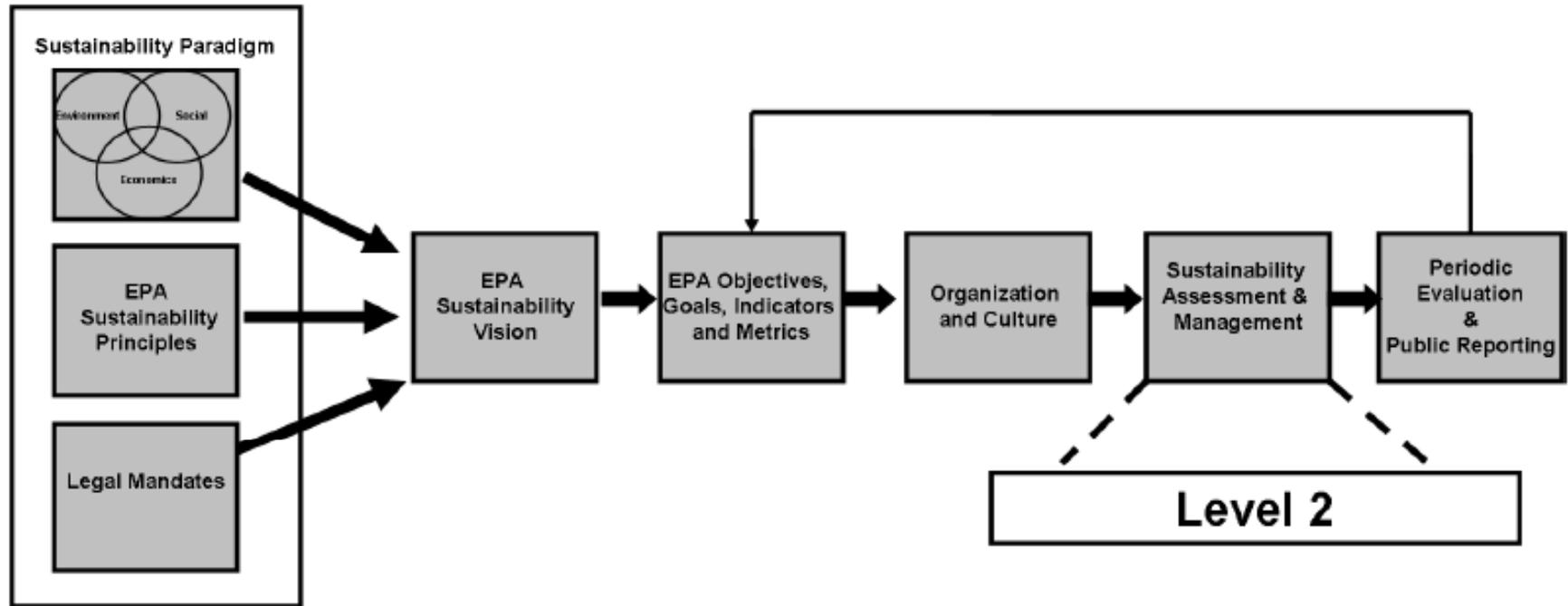


# Additional Information

---

# Sustainability Framework: Level 1

## Level 1



# Sustainability Framework: Level 2

