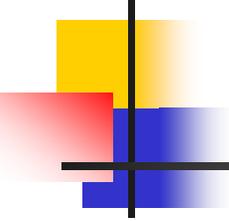


# National Environmental Status and Trends (NEST) Indicator Project

---

*Sustainable Water Resources Roundtable Meeting*  
27 June 2008

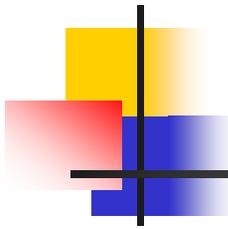
**Richard W. Guldin**  
USDA Forest Service R&D



# Outline of Today's Presentation

---

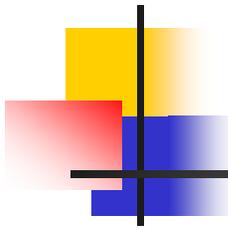
- Review some recent history about environmental indicator policy discussions
- Discuss the CEQ-OSTP-OMB policy memo issued June 17, 2008



# In the Beginning ...

---

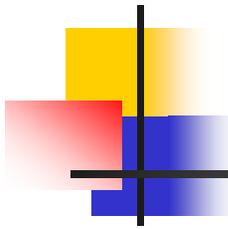
- The Earth Summit (June 1992)
  - United Nations Conference on Environment and Development (UNCED) Rio de Janeiro
  - Focused on the environment and sustainable development, especially links between the two
  - Key documents
    - Agenda 21
    - Rio Declaration on the Environment
    - Statement of Forest Principles
    - UN Framework Convention on Climate Change
    - UN Convention on Biological Diversity



# Shortly Thereafter ...

---

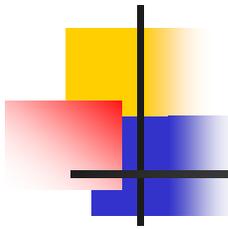
- The President's Council on Sustainable Development was formed by Executive Order 12852 (July 1993)
  - Identified frameworks for tracking sustainable development
  - A U.S. Interagency Working Group on Sustainable Development Indicators was organized under the auspices of CEQ. They expanded on the PCSD work, developing an indicator framework and an experimental set of 40 indicators
- The Santiago Declaration (1995)
  - Focused on implementing the UNCED Statement of Forest Principles
  - Created criteria & indicators for the conservation and sustainable management of temperate and boreal forest ecosystems



# History

---

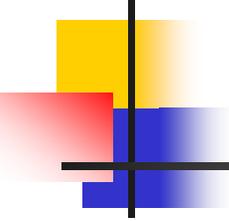
- Independent activities on indicators occurred throughout the 1990s in EPA and Depts of Commerce, Interior, and Agriculture
- Work in OSTP-CENR in mid-1990s led to *Recommendations for a National Environmental Monitoring Framework* (March 1997)
  - Seminal workshop in Sept 1996 attended by 160 stakeholders
  - Vice President Gore challenged federal agencies to work together with the scientific community and other interested parties to create an environmental “report card”
  - Dr. Melillo’s charge to the workshop--“How can we improve our current environmental monitoring and research programs (and the synthesis of data derived from them) to address policy questions related to the health of the nation's ecosystems?”



# More History

---

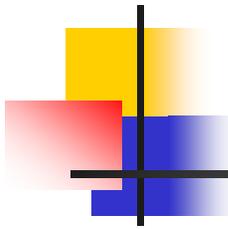
- The H. John Heinz III Center for Science, Economics, and the Environment began work on the *State of the Nation's Ecosystems* project
  - Initial report in 2002
  - The Heinz Center report successfully demonstrated a process for building consensus around indicators
  - Developed sets of indicators that enjoyed broad-based support for 6 different sectors of the environment
  - Demonstrated that some information was available and that significant data gaps existed
  - Highlighted the fact that some agency programs that provide key data had uncertain long-term funding prospects



# A Bit More History

---

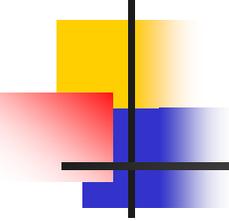
- Roundtables formed; first on Forests and then Range and Water
  - Driving factor for RSF was development and implementation of criteria and indicators of sustainable forest management
  - *First Approximation Report* (1998) followed by *National Report on Sustainable Forests* (2003)
- Several National Academy of Sciences studies
  - *Nature's Numbers: Expanding the National Economic Accounts to Include the Environment* (1999)
  - *Ecological Indicators for the Nation* (2000)
- 2004 GAO Report: *Environmental Indicators: Better Coordination Is Needed to Develop Environmental Indicator Sets that Inform Decisions*



# 2002-2003 Were Busy Years

---

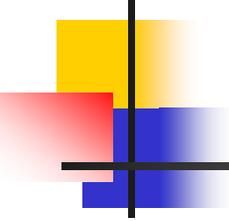
- Heinz Center issued first *State of the Nation's Ecosystems* report
- USGS issued Circular 1223, *Concepts for National Assessment of Water Availability and Use*
- EPA issued draft *Report on the Environment*
- FS issued *National Report on Sustainable Forests--2003*
- CEQ refocused on environmental indicators
  - Ted Heintz was detailed from Dept of the Interior to CEQ to coordinate activities in late 2003
  - Collaboration on Indicators of the Nation's Environment (CINE) to develop a *System of Indicators of the Nation's Environment (SINE)*
    - Regular discussions were held among interested parties, incl NGOs
    - EPA, Interior (USGS), Commerce (NOAA), Agriculture (Forest Service & Natural Resources Conservation Service) were steady participants along with OMB and OSTP



# The Final Bit of Recent History

---

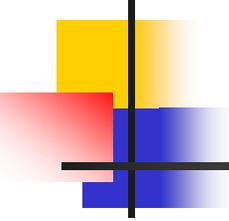
- To get more advice, the Dept of the Interior requested the National Academy of Public Administration in 2006 to review the situation, with special focus on the institutional collaboration challenges
  - *A Green Compass: Institutional Options for Developing a National System of Environmental Indicators* (Nov 2007)



# NAPA Report Nuggets

---

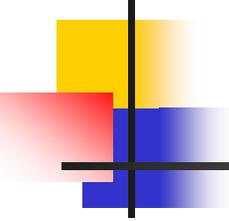
- “It is clear America needs a comprehensive nationwide system of environmental indicators.”



# NAPA Report Nuggets

---

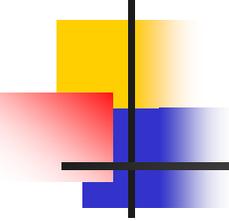
- “It is clear America needs a comprehensive nationwide system of environmental indicators.”
- “While a host of federal and state agencies collect a vast amount of environmental and natural resource data, our ability to produce actionable information is limited by the fact that the data currently collected are inconsistent, incomplete and, often, simply not adequate for decision-making.”



# NAPA Report Nuggets

---

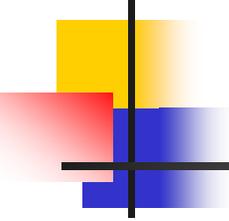
- “It is clear America needs a comprehensive nationwide system of environmental indicators.”
- “While a host of federal and state agencies collect a vast amount of environmental and natural resource data, our ability to produce actionable information is limited by the fact that the data currently collected are inconsistent, incomplete and, often, simply not adequate for decision-making.”
- “**Undertake an intensive pilot** to develop crosscutting indicators for an environmental issue that is nationally significant, high profile, multi agency in scope, and of immediate interest to state and local governments and the private sector. **The Panel suggests water quantity as a candidate issue.**”



# NAPA Report Nuggets

---

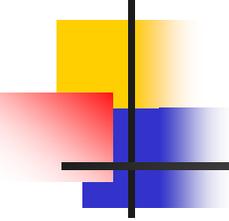
- “It is clear America needs a comprehensive nationwide system of environmental indicators.”
- “While a host of federal and state agencies collect a vast amount of environmental and natural resource data, our ability to produce actionable information is limited by the fact that the data currently collected are inconsistent, incomplete and, often, simply not adequate for decision-making.”
- “Undertake an intensive pilot to develop crosscutting indicators for an environmental issue that is nationally significant, high profile, multi agency in scope, and of immediate interest to state and local governments and the private sector. The Panel suggests water quantity as a candidate issue.”
- ***“Think big, start small and ramp up fast.”***



## And In the Past Two Months...

---

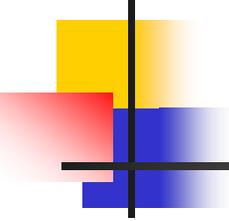
- EPA issued its new *Report on the Environment* (May)
- Heinz Center announced its second *State of the Nation's Ecosystems* report (June)



# Have We Learned from History? Or are We Doomed to Repeat It?

---

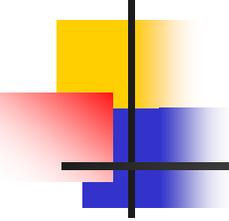
- The past 15 years demonstrated that the task of defining indicators—though difficult—could be mastered
- We under-estimated the importance of designing indicators to address key public policy questions so they will be used by decision-makers and the public
- Describing a suitable framework within which the indicators could be nested also proved difficult
- Most difficult was orchestrating institutional collaboration among federal agencies responsible for inventory and monitoring programs



# CEQ, OSTP, OMB Policy Memo

---

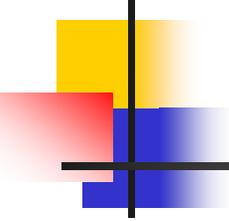
*The pilot project is designed to test the vision for the NEST Indicators. It will demonstrate the collaborative interagency processes that will be used to select and implement indicators and will improve the consistency and interoperability of data. In addition, a national forum will be convened to identify the topics and questions that should be addressed by the indicators of water availability.*



# Characteristics of NEST Indicators

---

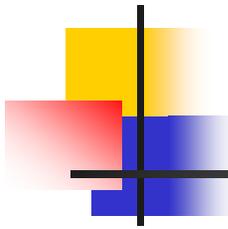
*NEST Indicators are envisioned to be a set of high quality, science-based statistical measures of selected conditions of our environment and natural resources. They address topics that are sufficiently important and cross-cutting to warrant the acquisition of data using measurement methods and statistical designs that are consistent across the entire country and repeated regularly over time.*



# Who is Involved?

---

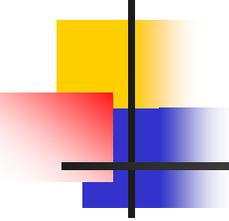
- Four departments/agencies
  - Dept of Agriculture (FS & NRCS)
  - Dept of Commerce (NOAA)
  - Dept of the Interior
  - EPA
- National Forum to engage stakeholders
  - State agencies and other interested Federal agencies
  - NGOs
  - The science community



# Why Have a National Forum?

---

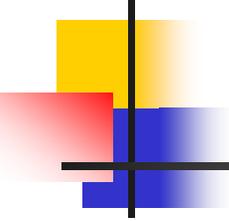
- Hear the views of stakeholders
  - What are the most important questions where information is needed to make better policy?
  - Focus on water quantity and quality
  - Welcome information on other resources
- Identify potential non-Fed contributions
  - To the policy dialogues at multiple geo-spatial scales
  - To the data and data management needed for better dialogue
  - To the estimation and reporting processes for the indicators needed to better inform policy dialogue



# NEST Key Products

---

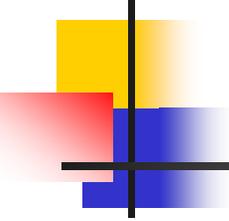
- Report to CEQ, OSTP, and OMB on
  - Criteria for selecting high-level environmental and natural resource indicators
  - A framework for comprehensive set of high-level indicators.
    - **Not** selection of all the indicators for all sectors
  - Selected water indicators (5 to 7)
    - Results of an initial test of data interoperability and the ability to report on them
    - Recommended changes to existing programs at the participating agencies to improve reporting
  - “After Action Review” of institutional collaboration and any recommended changes to improve institutional capacity
  - Proposed next steps



# NEST Timeline & Milestones

---

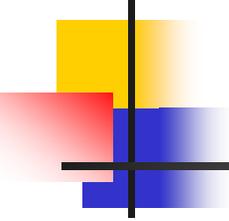
- Finish the pilot test by Oct/Nov 2009
  - Review current situation and ongoing projects/processes (Aug 08)
  - Initial description of indicator attributes and framework (Nov 08)
  - First National Forum (Jan 09)
  - Second National Forum (Jun 09)
  - Final report on water availability indicator test (Sep 09)
  - Final recommendations (Oct 09)
  - “After Action Review” (Nov 09)
- “Keep the pedal to the metal throughout transition”



# NEST Leadership & Staffing

---

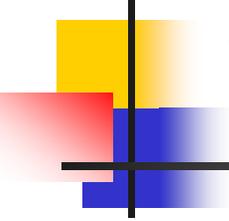
- A Federal Executive Management Team
  - One or two SESers/senior GS-15s per Dept/agency, appointed by DAS
  - Necessary support staff and technical experts for task teams
    - Summarize current situation and projects within Depts/agencies
    - Information management and interoperability
    - Others to be determined
  - Forest Service leads the EMT for first two years
- Funding
  - Use existing program funds
  - Sufficient funding for an 18-month, high-speed, high-profile project to report out to new Administration leadership



# Near-Term Information Needs from Agency Staff

---

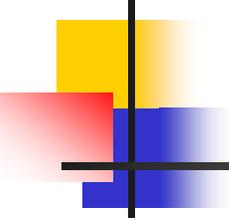
- A “snapshot” of the current indicator projects/processes
  - Within the participating agencies and their networks
- Synopses of the most important indicator development projects/processes the past 5 years on
  - Environmental and natural resource indicators, in general
  - Water availability, in particular
    - Water quantity and water quality
    - Biological dimensions as well as physical and chemical



# Why Was FS R&D Asked to Be the Initial EMT Leader?

---

- The CEQ-OSTP-OMB project is about cross-cutting environmental indicators; water availability is only the “test bed”
- FS has:
  - 15 years of indicator experience with OSTP, CEQ, and stakeholder processes linked to UNCED
  - Since 1975, a legislative mandate to prepare periodic resource assessments for the Congress
  - 75 years of experience delivering a forest inventory & monitoring program that enjoys broad and deep stakeholder support and is on a solid financial footing
  - Both research and management responsibilities for water resource policy issues related to national forests and important to private forest landowners
  - Demonstrated commitment to fostering collaborative inter-agency partnerships
  - Willing to respond to CEQ Chairman Connaughton’s invitation to serve as the initial EMT lead



# Questions ...

---