Myths, Hobgloblins and Crusades: EMAP Through the Ages

presented

by

Steve Paulsen and Kevin Summers

U.S. Environmental Protection Agency
Pre-EMAP
Policy Questions Are Often Very Simple

“What do you mean you don’t know how many acid lakes there are?”

William Ruckelshaus - EPA Administrator - early 1980s
NAPAP
National Surface Water Surveys

Acid Sensitive Regions of the Northern and Eastern United States
NAPAP-NSWS Survey Results
Answering Ruckelshaus’ Question

Acid Sensitive Regions

Upper Midwest
Ridge/Blue Ridge
Northern Appalachians
Adirondacks
New England

Percent Acidic

0 5 10 15
NAPAP-NSWS Survey Results
Answering Ruckelshaus’ Question

Acid Sensitive Regions

- Upper Midwest
- Ridge/Blue Ridge
- Northern Appalachians
- Adirondacks
- New England

Percent Acidic

Prior
Current
Lesson #1 - Not all “Experts” are expert in all things

“That’s a stupid question and one that you can’t possibly answer.”

Chair of NRC Indicator Panel
EMAP - Beginnings
Initiation

- Meeting in 1987 - Versar (LOE Contractor) and Linthurst
  - Completing Acid Rain Lakes Program
  - Idea for Monitoring Ecosystems of US
  - No Program
  - No Money
  - Little Interest
  - No Sanction
It takes a great idea to start a great organization

Myth #1
Thursday Pizza Nights
Thursday Night Pizza (conceptualization)

- Nearly 1 year in duration
- Thursday nights 6pm-10pm
- Continuing members: Linthurst, Holland, Summers
- Would add people depending on topic
- End result: Outline of a program (nameless)
- Next step: create followers
“EcoSynthesis”
The Very Early Stages of EMAP

“There are plenty of data out there to know what is going on in the environment and what our major problems are. Do the hard work and synthesize it!”

Conventional Wisdom
Lesson # 2

Conventional wisdom is just that, conventional, and seldom leads to important breakthroughs.

- The data were not there to provide unbiased estimates.
  - lack of appropriate indicators (e.g. forests) and
  - lack of an appropriate design (e.g. inland aquatics).
- We discover we will have to collect the data ourselves!
Early Partnerships
Partnerships

OEPER and OMMSQ (remember those organizations???) continue the often painful process of working together.

ORD starts the very challenging process of partnering with other federal agencies, States and Tribal Nations.

Cost estimates for fully implemented program escalate to $100M - Yikes!
If the idea is a good one, move forward in confidence (not arrogance), in spite of the critics & apparent challenges!
Organization and the Golden Days
Myth #2

Visionary organizations require great and charismatic leaders.
Leadership (10 in 10)

Rick Linthurst
Gil Veith
Ed Martinko
Tom Murphy
Sidney Dragman
Steve Paulsen
Jay Messer
Rick Kutz
Mike McDonald
Matt Bills
Peer Review

- Most reviewed program in ORD
- Example – Coastal (NRC)
  - 28 Recommendations
  - 26 Positive
  - 2 Negative
Original First National Coastal Report

- Overall condition from Virginian and Louisianian Provinces
- Ready to go to press
- Preliminary Agreement between NOAA and EPA
Myth #3

Visionary organizations are great places to work for everyone
Dark Days

- Reorganization of ORD
- Re-evaluation of EMAP
- Stopping of Pilot Studies
- Reassignment
Original First National Coastal Report

- Stopped as part of reorganization
- Published electronically by OW
- Shelving of Coastal
Early EMAP Resources Groups Targeted Regions Where Federal or State Partners Were Ready

- Air
- Streams (1993)
- Groundwater
- Lakes (1991)
- Coastal (1990)
- Rivers (1994)
- Forests (1991)
- Arid Ecosystems
- Agro-ecosystems
- Urban Ecosystems
Lesson #4 - Low Hanging Fruit

Whatever you do, get the low-hanging fruit FIRST!

After solving all the tough problems, Dixon discovers low hanging fruit!
Regionalize
Demonstrate How It All Comes Together

“MAIA”
Mid-Atlantic Integrated Assessment

Hosted by EPA Region III
ORD Contributed:
Estuarine,
Stream/River and
Landscape
US Dept. Agriculture
Forest
NASS/ARS
Acted as Catalyst for CENR
Monitoring Framework Pilot
Streams and Rivers in 12 Western States

Estuaries in Western States including Alaska and Hawaii!
Lesson # 5
It’s amazing what you can accomplish if you don’t care who gets credit!
A Phoenix Rising
(National Coastal Assessment)
Challenges (1996-1999)

- How do you continue EMAP-Coastal with no money?
- Can EMAP-Coastal be expanded into a national program?
- Can NOAA be re-engaged?
- Can OW be engaged?
Highly successful organizations make their best moves by brilliant and complex strategic planning

Myth #4
Organizations become visionary primarily through “vision statements”.

Myth #5

- OW/NOAA/USGS requirement to assess the condition of aquatic resources
- Stalemated - 1999 Conference Call
- Invention of the National Coastal Condition Report
National Coastal Condition Report I

- Based on 1990-1996 data
- Virginian, Carolinian, Louisianian, selected west coast sites
National Coastal Assessment

- 1999 - EMAP Western Pilot Coastal
- 2000 - All coastal states in conterminous US and Puerto Rico
- 2001 - Includes Alaska and Hawaii (one time)
- 2002 - Includes Western Inter-tidal
- 2003 - Includes Western Offshore with NOAA
- 2004 - Includes SE Offshore with NOAA
National Coastal Assessment II
Transition

- Moving from research to operation
- Players (OW, Regions, ORD, States)
- Options
Wadeable Streams Assessment (WSA)
Wadeable Streams Assessment
The Beginning of a Fellowship?

• OW, Regions Managed
• ORD Supported
• States & Contract Field Effort
• Blends ORD EMAP-West and new eastern survey with compatible designs and consistent indicators
• Assessment in Dec. ’05
Myth #6: You can’t have your cake and eat it too.

The Agency is Ready to Get the Assessments It Needs. We Need to Work Out the Details of How to Manage It!
Intensive Sampling

Surveys

Remote Sensing & Censusing
Intensive Sampling Surveys & Censusing Site Remediation Water Shed → Regional Remediation Broad-Scale Remediation

Spatial Temporal TMDL Policy
Myth #7

Successful organizations play it safe
Attributes of EMAP

- Thoughtful risk
- No penalties
- Just do it!
All in all...
...It's Been a Lot Like...

Herding Cats!
It’s Been Fun!
Thanks & Good-Bye