EPA'S WATERSHED PLANNING APPROACH FOR THE SECTION 319 PROGRAM

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"Managing Sediments in the Watershed" Conference

QUESTION: Where do those annoying sediments come from?

HINT: From the Watershed!

- Agriculture (farming, grazing)
- Streambank and streambed erosion
- Construction/development
- Unpaved Roads
- Forestry

Most Significant Sources of Impairments (Rivers and Lakes)

Source	Rivers	Lakes
Agriculture	48%	41%
Hydro- and habitat-modification	34%	18%
Urban Runoff/Stormwater	13%	18%

Sediments and Nutrients are the 2 biggest causes

Why should I care about sediment? I'm way Upstream of the Harbor!

- Effects on fish and shellfish
- Effects on swimming
- Effects on visibility and aesthetics
- Sediments carry nutrients, metals, pesticides
- Therefore, for many different reasons, folks upstream of the ports share your concerns about the erosion and transport of sediment

What Kind of Numbers Are We Talking About?

- Some CWA §319 projects are preventing hundreds of thousands of tons of sediment annually from entering streams, many more at the tens of thousands level
- USDA has many similar examples from its work over the years, and also has published studies showing huge sediment reductions nationwide over the past several decades
- Typical BMP's include conservation tillage, buffer strips, physical stream restoration

What other Kinds of Numbers are We Talking About? Costs

- Success Story: Las Vegas Wash, NV

- 1600 sq mile watershed, delivers stormwater and highly treated effluent to Lake Mead

  -- Project has cut TSS in half; met WQS

  -- $29 million spent to date; another $100 million anticipated

Costs (cont.)

- Some projects are more modest and lower-cost, yet the projects are important
  - Very small subwatersheds with significant soil erosion may be “fixable” with a few hundred thousand dollars
  - A single streambank restoration project may consist mostly of relatively inexpensive willow plantings, yet yield large sediment reductions

So Can the Folks Upstream of the Harbor Take Care of the Problem?

- Well, to some extent, yes, but they can't do it alone.
  - Sometimes exceeds their financial capacity
  - Generally unregulated (unlike point sources)
  - USDA has billions of dollars, but the majority is currently not targeted on a watershed basis
  - EPA programs targeted, but much less $$$$

So: How then is EPA addressing the NPS problem?

- Sec. 319 of CWA: About $200M annually
- Formula-based distribution to States
- Half of Section 319 funds are focused on developing and implementing watershed-based plans for impaired waters. We believe this is the key to success.

Watershed Planning Paradigm Shift

- The traditional approaches for 319; USDA programs (help one farmer at a time); and others has not enabled us to achieve our WQ goals

- Until you have quantitative knowledge of
  - (a) the nature and source of the WQ problem,
  - (b) the pollutant load reductions needed to meet WQS,
  - (c) the BMP's that will achieve that pollutant load reduction,

  you're not ready to implement BMP's that will solve the problem.

EPA's 319 Funding Guidelines

- **"Incremental Funds" - $100 million/year**
- **Must be used to develop and implement**

WATERSHED – BASED PLANS

that are designed to achieve water quality standards

** Where TMDL's have been developed, the plans incorporate them and go from there

“Watershed-Based Plans”

- Our Section 319 Program and Grants Guidelines identify 9 Components that must be included in each “Watershed-Based Plan” to restore impaired waters

- Before a State implements a 319 restoration project, it must develop a watershed-based plan

9 Components of a Watershed – Based Plan

- A. Identify and quantify causes and sources of the impairment(s) at the subcategory level (e.g., X dairy cattle, Y acres needing N management, Z miles of streambank needing remediation)

- B. Estimate needed load reductions, by subcategory, to achieve WQS

- ID BMP's needed to achieve the load reductions, and ID the critical areas for implementing the BMP's

Nine Elements (cont.)

D. Estimate needed technical & financial resources

E. Information/ Education component

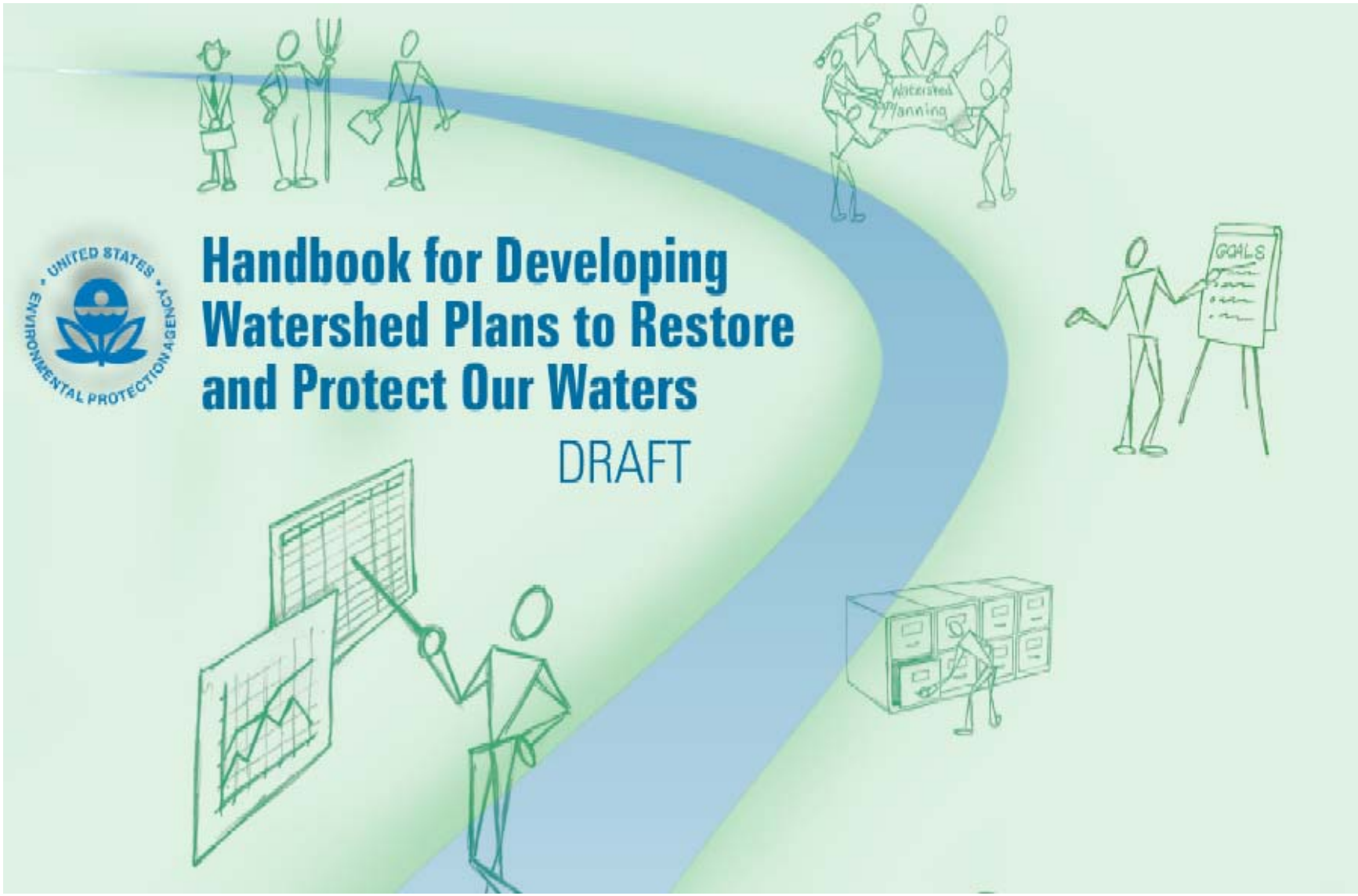
F. Schedule (who does what, when)

G. Describe measurable milestones for implementation

H. Establish criteria to determine if loadings/ targets are being achieved

I. Monitoring component for above criteria

Only 450 Pages!!!!!!!



Watershed Tools Training

- Watershed Conservation Resource Center in Little Rock, Arkansas
- Water Environment Federation – Course and Webcasts Training
- Various Training Sessions – e.g., national and regional WQ conferences, & in conjunction with **Getting-in-Step** workshops for local outreach efforts
- Web-based Training (under development) and Web-casts

Decision Support System

- Working with EPA's ORD, other experts to design and develop
- In meantime, we have supported the development/upgrade of many individual technical models and assessment tools
- EPA will soon published a basic web-based "watershed plan builder's kit"

Where do [add your name here] fit in?

- Meet your watershed neighbors
- Help them both develop and implement their watershed plan(s)
- Share data regarding both sources of sediment and downstream effects
- Use data to identify “hot spots” for priority action
- Share resources (technical expertise, modeling capability, and cold hard cash) to improve analyses of problems and potential solutions.

Where do I fit in (cont.)?

- Help organize upstream communities on a watershed basis – some of these folks may not know each other, much less you
- Work with EPA, State WQ agencies, USDA, to identify solutions together
- Share resources to implement solutions

Where do I fit in (last slide)

- Become part of the broader debate
  - The Farm Bill is up for reauthorization next year. What should its priorities be? What should its funding levels be?
  - The Farm Bill also comes up for funding appropriations annually, and so does EPA's.

Success Stories Web Site

- www.epa.gov/nps/success
- 33 stories to date, 20 have achieved Water Quality Standards; remainder had very significant water quality improvements
- Some are coastal bays, or rivers flowing to the coasts (Dungeness Bay, WA; Portage Bay, WA; Neuse River, NC; Tar- Pamlico, NC; North Fork Potomac River, WV)

Web Sites Galore!!!!!!!!!!!!!!!!!!!

- www.epa.gov/nps
  - /lid
  - /Success319
  - /Watershed_handbook
  - /Categories.html (management measures and other BMP books for NPS categories)
  - /outreach.html
    - Coming soon! NPS Outreach Toolbox!!!

Related Websites

- www.epa.gov/owow
  - National Reports on Water Quality Trends
  - TMDL's
  - Monitoring Tools
  - Oceans, Wetlands, Estuaries, Lakes
  - Water Quality Data