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# Update on USEPA Impaired Waters Listing and TMDL Program Activities and Future Plans

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# Purpose

- Share what we have heard from Impaired Waters Listing and Total Maximum Daily Load (TMDL) Program stakeholders
- Provide a snapshot of the Clean Water Act (CWA) Section 303(d) Program in 2008
- Link priorities and future activities

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# Stakeholder Input

- State TMDL Practitioners (via Environmental Law Institute – ELI -- especially June 24-25, 2008 workshop)
- Association of State and Interstate Water Pollution Control Administrators (ASIWPCA – state organization)
- Permitted Community and Private Sector (Water Environment Federation - WEF)
- Water Quality Modeling Practitioners (primarily states)
- National Association of Counties (NACo – county governments)
- National Corn Growers Association (NCGA – agriculture groups)
- Federal Partners (land management agencies)
- Environmental Groups (litigation, other)

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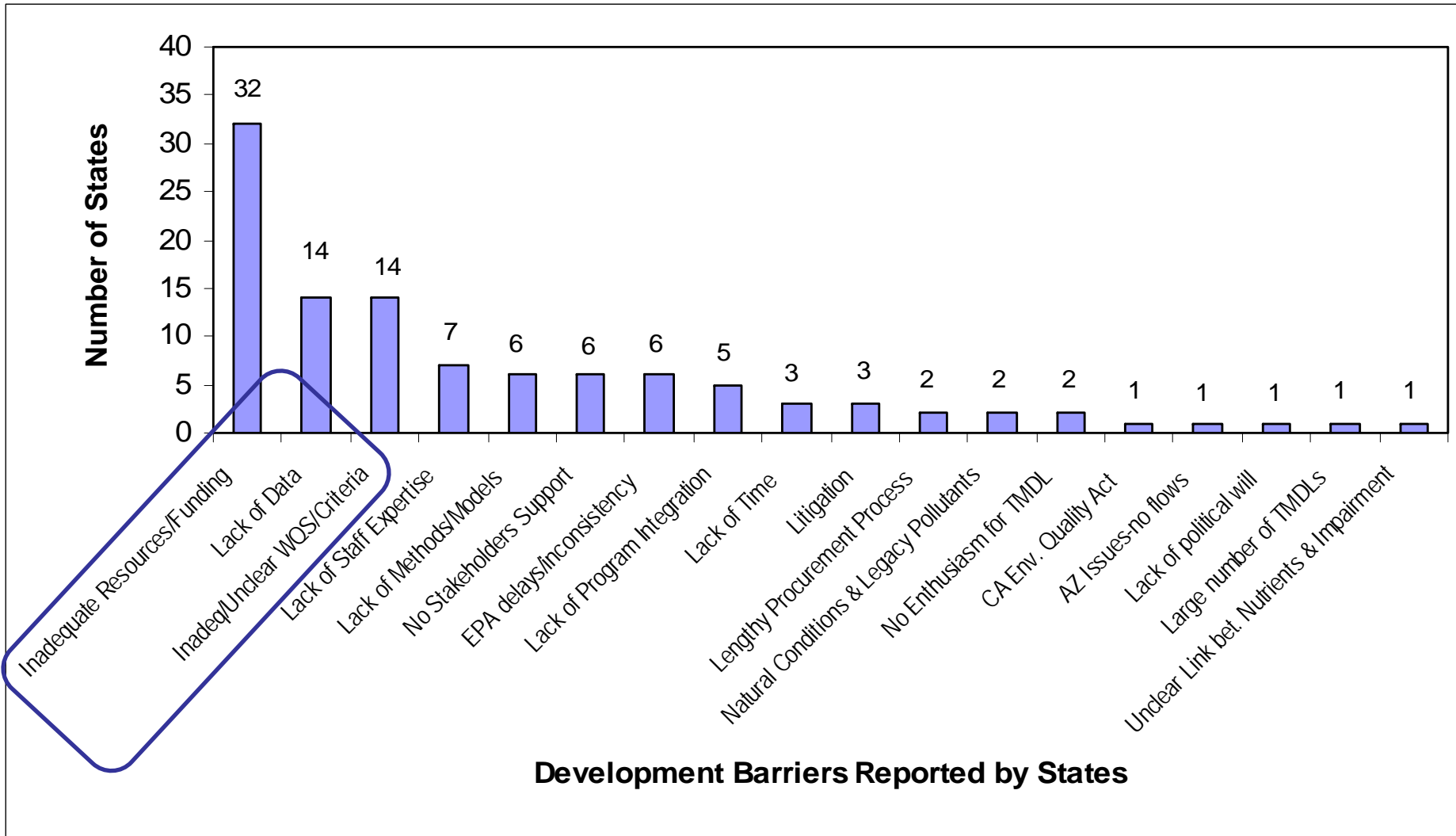
# What We Heard from the States: Challenges and Innovations

- **Good News!! States focused on water quality attainment**
- **Balance flexibility and consistency**
- **Address nonpoint sources under existing CWA and water quality standards (WQS)**
- **Use of TMDL alternatives to attain water quality**

## *ASIWPCA:*

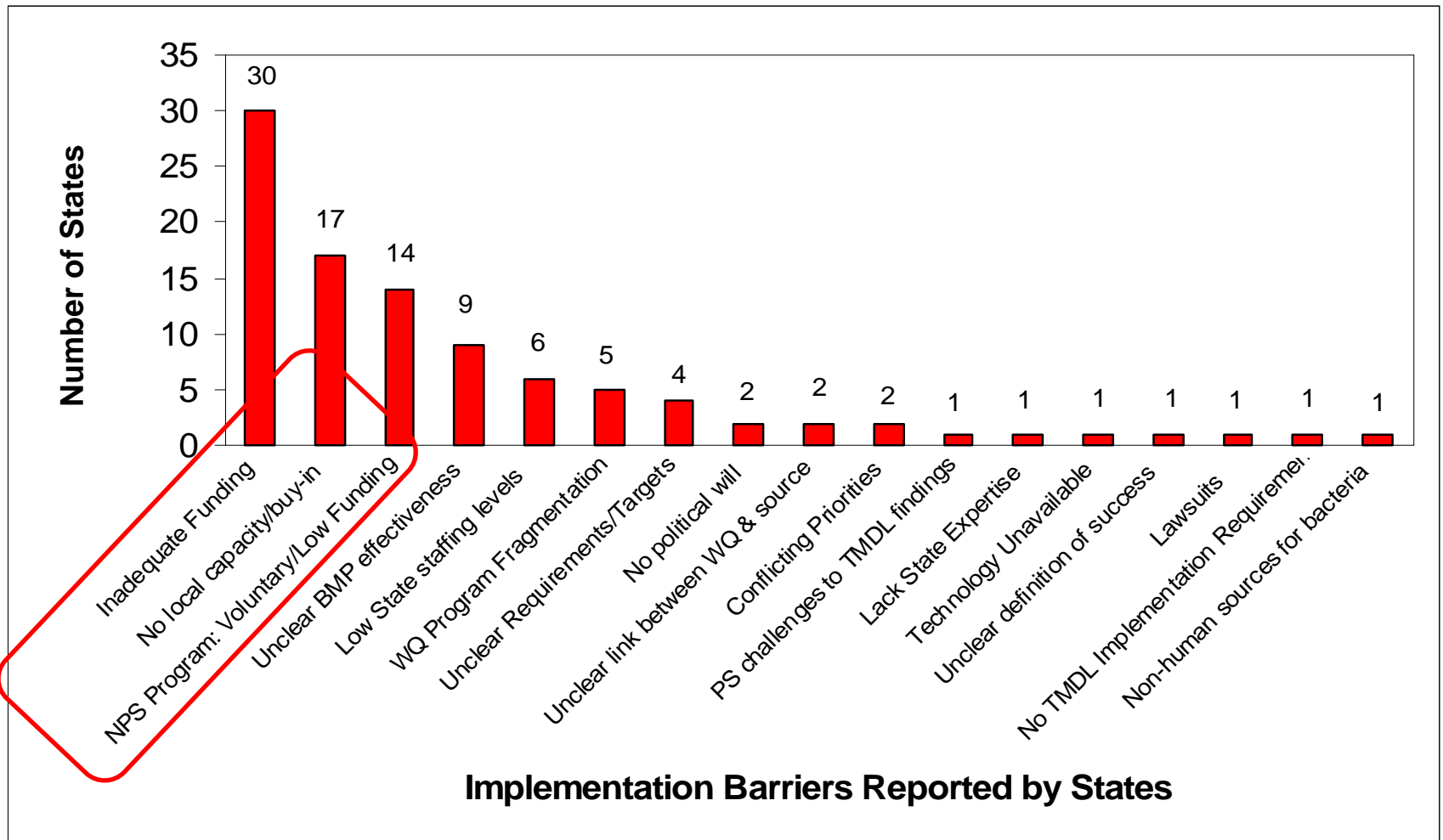
- *Develop a nutrient strategy with accountability-based approach for nonpoint sources*
- *Category 4b holds great promise as a TMDL alternative*
- *Burden of proof has quelled use of 4b*
- *Request ID of “good examples”*

# TMDL DEVELOPMENT BARRIERS



Source: June 2008 National Workshop to Advance State TMDL Programs.  
States identified their top three barriers to TMDL Development.

# TMDL IMPLEMENTATION BARRIERS



Source: June 2008 National Workshop to Advance State TMDL Programs.  
States identified their top three barriers to TMDL Implementation.

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# What We Heard from the States:

## Expand Coordination at All Levels

- **Coordinate with other CWA programs**
- **Improve coordination with other federal agencies**

### *ASIWPCA:*

- *Make state full partners in forestry strategies*
- *Align CWA, Farm Bill, and water resources programs*

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# What We Heard from the States: More Meaningful Measures

- **Re-evaluate programmatic measures (away from focus on TMDL #s)**
- **Enhance balance of pace and rigor**

## *ASIWPCA:*

- *Interest in interim milestones to show progress and tracking implementation*
- *Work group focusing on Environmental Results and Innovation*

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# What We Heard from the States:

## Maintain Connection with States

- **Resounding interest in another meeting next year**
- **Enthusiasm to continue connection with sister states**

### *ASIWPCA:*

- *Restore an effective, collaborative State-US Environmental Protection Agency (USEPA) partnership*

# What We Heard from the States: Future of TMDL Program

- **TMDL Program identity crisis (growing pains)**
- **Evolve into a Clean Water Program**
- **Promote regulatory nonpoint source approach**
- **Re-evaluate measures**

## *ASIWPCA:*

- *National Nutrient Strategy*
- *Address 303(d) listing issues*
- *Increase training, tools, and models*
- *Increase funding for sections 106 and 319*

# What We Heard from the Permitted Community and Private Sector (WEF)

- **Provide technical guidance for the development of TMDLs** [e.g., adaptive management, watershed TMDLs, stormwater best management practice (BMP) optimization]
- **Address emerging issues in the development of TMDLs** (e.g., incorporate future growth and climate change considerations)
- **Address TMDL implementation issues**, including:
  - Clarification on revising TMDLs
  - Development of better implementation plans
  - Examples of state regulations and implementation mechanisms to control NPS pollution
  - Tracking post-implementation monitoring
  - Implementing TMDLs when reductions needed to achieve WQS are not attainable
- **Coordinate with other CWA programs**, particularly with standards program on use attainability analysis and with permits program on stormwater management
- **Improve coordination with other federal agencies and other stakeholders** to promote data sharing and exchange examples on effective pollutant management practices
- **Increase outreach & communication** – build local capacity and improve image of the program
- **Re-evaluate programmatic measures** to quantify post-TMDL development water quality improvements

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# What We Heard from Water Quality Modeling Practitioners (Primarily States)

- **Address TMDL implementation issues**
  - Determine the role of models for implementing BMPs
  
- **Increase outreach & communication**
  - Improve communication about TMDL requirements to modeling community and the public
  - Develop 'plain English' TMDLs
  
- **Increase training, tools, and models**
  - Provide guidance on appropriate interpretation of modeling results
  - Present a consistent position across USEPA about what is technically acceptable
  - Improve data quality
  - Assist with model selection
    - Match model complexity with water type, nature of pollutant, source of pollutant
    - Determine appropriate level of model evaluation and dollars used to develop models
    - Provide guidance on factors for specific situations short of endorsing a model

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# What We Heard from the National Association of Counties (NACo)

- **Address TMDL development issues**
    - Provide information on linkage between growth and county development and TMDLs
  
  - **Improve coordination with other stakeholders**
    - Help in partnering with state, federal, industry, and watershed groups to develop strategies to apply BMPs
    - Information on how to incorporate TMDLs into comprehensive plans and daily planning in county
    - Provide information on how to manage infrastructure costs to address TMDLs
  
  - **Increase outreach & communication**
    - Develop outreach materials on BMP strategies and resources for local action
    - House these easy-to-use resources in a central location for local government
    - Provide training on TMDL development and implementation
  
  - **Increase funding**
    - Increase funding for the development of watershed management plans
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# What We Heard from the National Corn Growers Association (NCGA)

- **Increase outreach & communication**
  - Provide walk-through of Agricultural Best Management Practice Effectiveness Database
  - Provide information on BMP cost-effectiveness
  - Provide success stories located in small towns
- **Improve coordination with other stakeholders**
  - Provide information to help producers connect with local watershed groups to identify agricultural practices that could help meet TMDL goals

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# What We Heard from Federal Partners

- **Land management agencies:** Forest Service (FS), Fish and Wildlife Service (FWS), National Park Service (NPS), and Bureau of Land Management (BLM)
- **Coordinate on analysis of impaired waters within management areas**
  - Assist with Program Assessment and Rating Tool (PART) and Strategic Planning
- **Identify innovative TMDL and Category 4b tools**
  - USEPA/FS Memorandum of Agreement (MOA) first year activities

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# What We Heard from Environmental Groups

- **Decreased interest** in program in the last few years
- **Focus on nutrient issues** with move towards petitioning or suing USEPA to force promulgation of numeric standards
- **Litigation**
  - Shift from national to local environmental groups/individuals
  - Focus litigation on specific TMDLs or 303(d) listings

# Stakeholder Feedback Synthesis

- **Address 303(d) listing issues (ASIWPCA, Environmental Groups)**
  - Use of Assessment Data Base (ADB), rotating basin approach, use of Categories 3 and 4b, expanded integrated reporting (IR) cycle, timely list reviews by USEPA, duration and frequency exceedances
- **Address nonpoint source (States)**
- **Address TMDL development issues (Environmental Groups, States, NACo, WEF)**
  - Stormwater surrogates, mercury, and watershed TMDLs, future growth, climate change, bacteria, revisiting TMDLs, include stormwater BMPs
- **Address TMDL implementation issues (States, ASIWPCA, Water Quality Modelers, WEF)**
  - Adaptive implementation; buy-in; clarify agriculture and nonpoint source pollution controls under CWA and state regulation; watershed approach; stormwater source controls; water quality trading; link control optimization, development of TMDL allocations and water quality trading; combined sewer overflows (CSOs) and storm sewer overflows (SSOs); monitoring post implementation (tracking), use of BMPs in models
- **Continue collaboration with states (States, ASIWPCA)**
- **Coordinate with other CWA Programs (States, WEF)**
  - Nonpoint Source, Permits, WQS

# Stakeholder Feedback Synthesis, cont.

- **Develop Nutrient Strategy** (ASIWPCA, Environmental Groups)
- **Determine future of TMDL Program:** Evolve into Clean Water Program, focus on TMDL implementation (States)
- **Improve coordination with other Federal agencies** (States, ASIWPCA, WEF, Federal Land Management Agencies)
  - US Dept. of Agriculture
- **Improve coordination with other stakeholders** (NACo, NCGA, WEF)
  - Local governments and watershed groups
- **Increase funding** (ASIWPCA, NACo)
- **Increase outreach and communication** (Water Quality Modelers, NCGA, NACo, WEF)
  - TMDL marketing, success stories, BMP effectiveness
- **Increase training, tools, and models** (ASIWPCA, Water Quality Modelers)
- **Re-evaluate programmatic measures** (States, ASIWPCA, WEF)
  - Less focus on pace, interim measures for water quality improvement
- **Clarify use of Category 4b** (States, ASIWPCA, Federal Land Management Agencies)

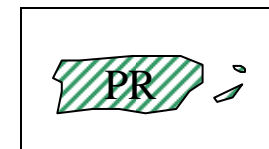
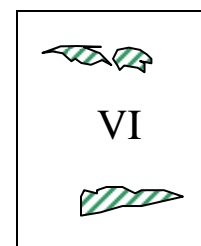
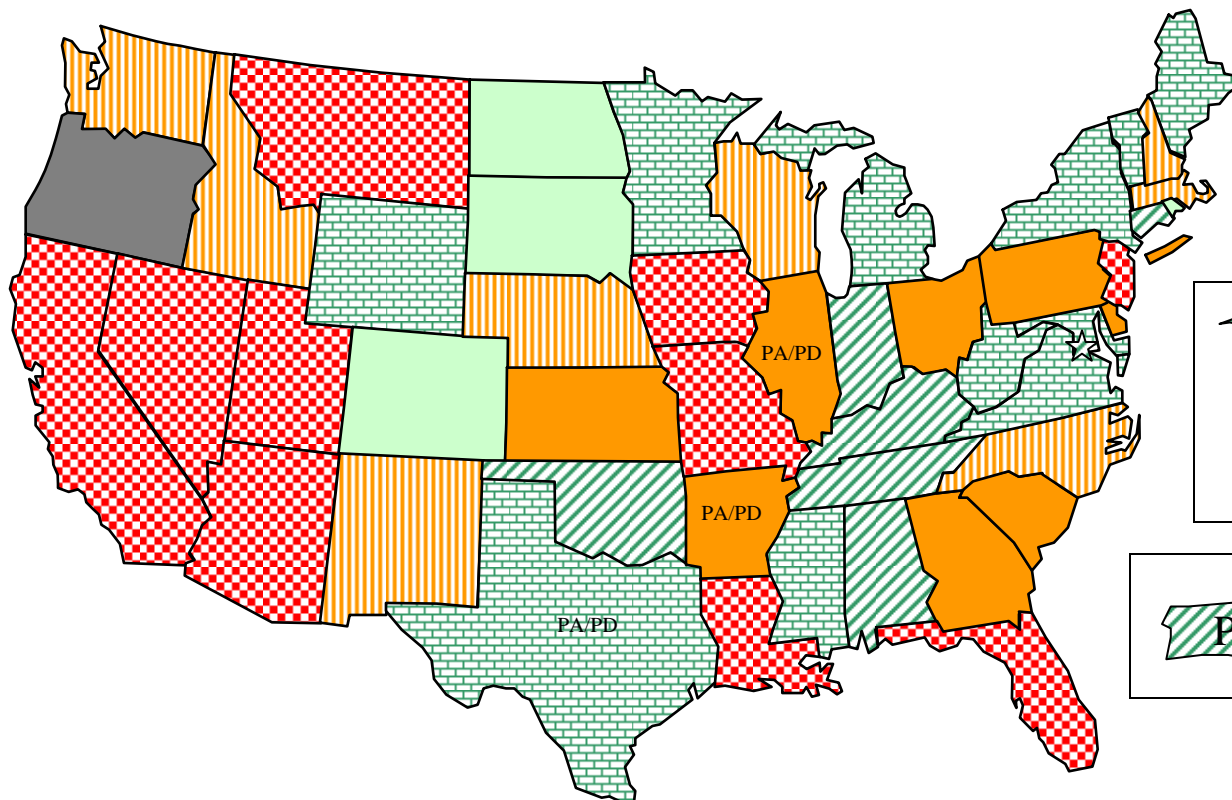
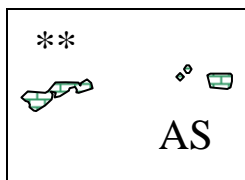
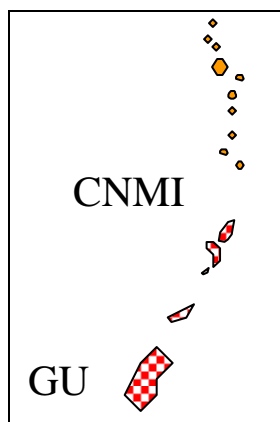
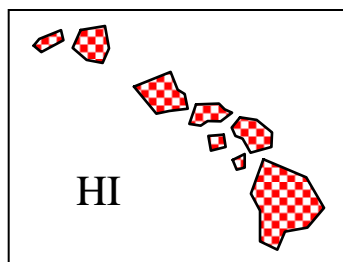
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






# Snapshot of the 303(d) Program in 2008: Fundamental Measures

- 43 lists submitted, 35 approved
  - Key assessment issues tackled
  - WQS and monitoring issues addressed
  
- 36,400 TMDLs developed and approved
  - Key policy issues addressed/undertaken
  
- 2,165 waterbodies reattaining WQS  
(SP-10; 2012 goal of 2,250 waterbodies)
  
- 6,723 causes of impairment removed  
(SP-11; 2012 goal of 5,600 causes of impairment)

# Status of 2008 Integrated Report (Attribute Data)

56 States and Territories

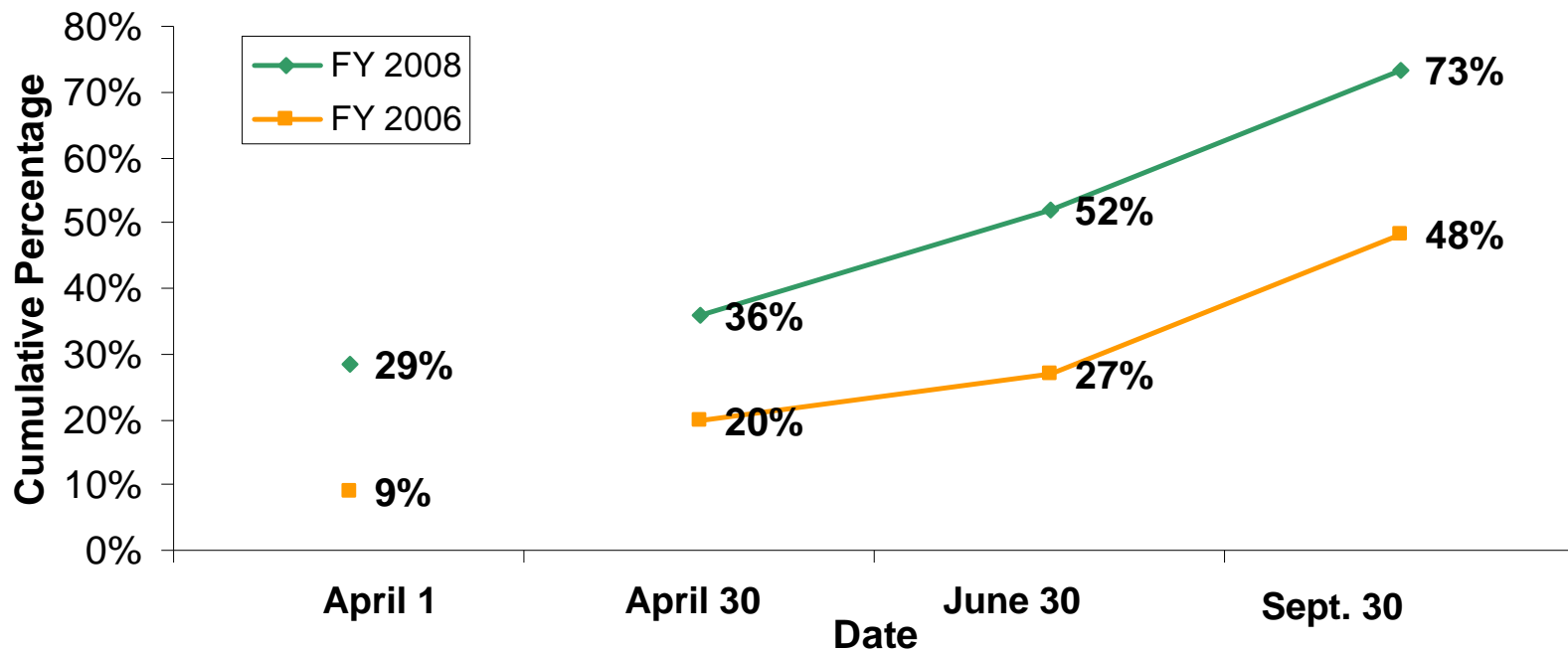


-  List approved, all data files processed, data review complete (4)
-  List approved, all data files submitted, awaiting regional review (9)
-  List approved, all data files submitted, being processed (12)
-  List approved, at least one data file (303d, 305b) not yet submitted (10)
-  List submitted, final action not yet taken (8)
-  List not yet submitted (12)
-  Will not submit 2008 List (1)

\*\* 303(d) data complete

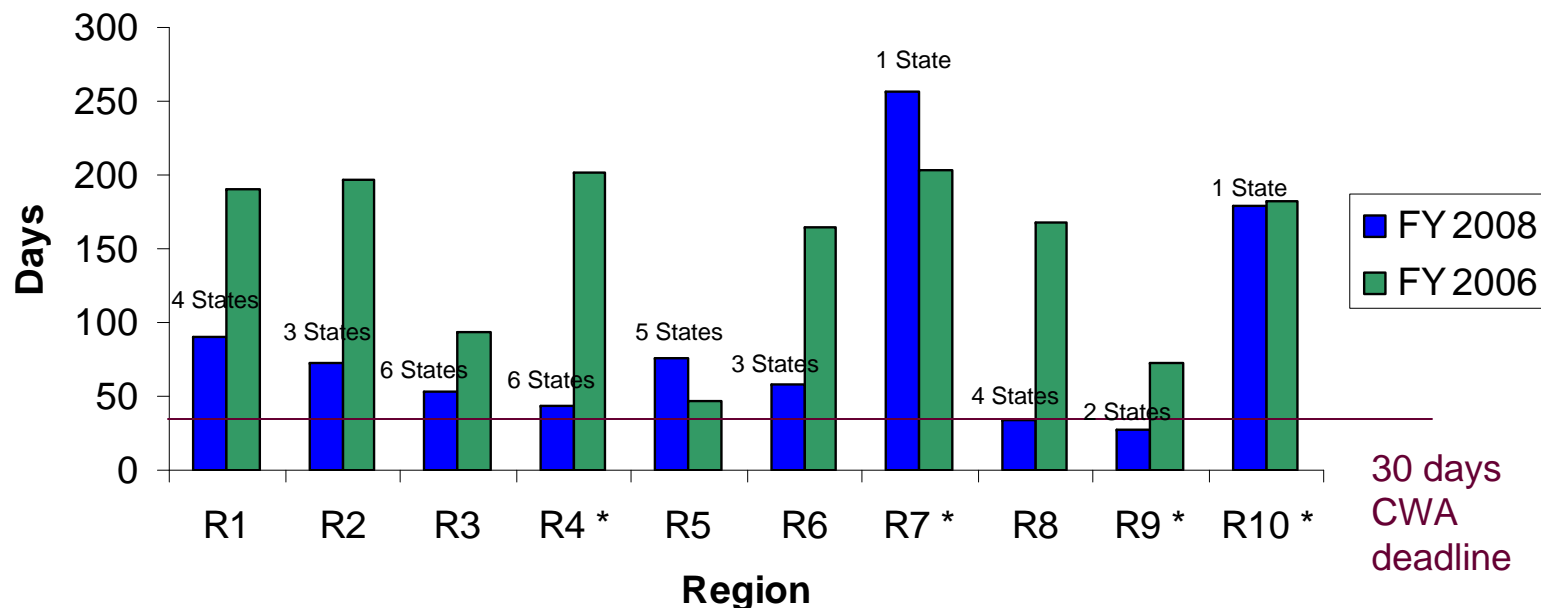
# State Listing/IR Submissions

**Comparison of 2008 and 2006 CWA 303(d) Impaired Waters List Submission Timelines**



Data as of November 11, 2008

## Average Number of Days by Region to Approve Submitted 2008 and 2006 CWA 303(d) Impaired Waters Lists



R4 – FL 2006 list combined with 2008 list

R7 – KS and NE 2006 list combined with 2008 list

R9 – AZ 2006 list combined with 2008 list and NV 2006 list not submitted

R10 – ID and WA 2006 list combined with 2008 list

No calculation made for lists not yet submitted

Data as of January 27, 2009

# Watershed Branch FY09 Priority Areas & Products

## *Provide CWA 303(d) National Program Leadership*

- *Litigation Management*: Issue final Anacostia and FL Rule guidance
- *Stakeholder Capacity-building*: Complete NACo, NCGA workshops, assistance; produce WEF session(s)
- *Grants Innovation*: Host ELI 'Top Two' workshop, National States workshop
- *Communications*: Launch new Web portals
- *IR*: Complete 2010 memorandum, 2008 reviews/analysis
- *TMDL Dedicated Funds*: Revisit formula, options

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# Watershed Branch FY09 Priority Areas & Products

## *Integrate Water Quality Programs*

- *Nutrients/Hypoxia*: Strengthen and broaden state and federal partnerships; launch actions to implement National Academy of Science report recommendations
- *Federal Partnerships*: Implement FS MOA, conduct FWS impairment assessment, lay groundwork with NPS and BLM
- *Permits*: Develop workshop on translation of wasteload allocations (WLAs) into individual permits and development of WLAs where individual permit exists
- *TMDL Alternatives*: Provide model '4b' demonstrations
- *Watershed TMDLs*: Complete handbook, training
- *Technical Support*: Award and track WQ trading grants; inform modeling

# Watershed Branch FY09 Priority Areas & Products

## *Support Technical and Scientific Underpinnings*

- *Mercury*: Launch Web-based air deposition tool, Web portal; provide TMDL and '5m' development support; implement Region 10 strategy mercury strategy framework; develop national all-media mercury monitoring plan
- *Stormwater*: Multiply pilots; issue final *TMDL to Stormwater Permits Handbook*, host training
- *Legacy Pollutants*: Develop and issue approach/ guidance
- *Invasive Species*: Develop and issue approach/ guidance
- *Climate, Plus*: Draft implications white paper; complete 'multiple benefits' pilot project (MT)

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# Watershed Branch FY09 Priority Areas & Products

## *Generate Implementation Analysis*

- *Results Analysis*: Complete implementation pilot (Region 5); prepare for national study
- *Data System*: Expand reporting capabilities
- *Recovery Potential*: Lead joint assessment project (MD); publish peer-reviewed article
- *Outreach*: Complete new Web sites, “TMDLs at Work” fact sheets

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# Quick Observations: Overlap Between Watershed Branch 2009 Work Plan and Stakeholder/Regional Feedback

- Almost all of the Watershed Branch Work Plan overlaps with stakeholder feedback
- Dynamic process
  - New administration
  - Continued state stakeholder interactions
- Direct and indirect linkage of work plan and interim, incremental, and ultimate measures of success