

# **The Arkansas Nonpoint Source Management Program**

## ***Strengths and Challenges***

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# Where are we now?

- 2006 - 2010 NPS Management Program transition to 2011 – 2016 Plan which will continually be enhanced and updated
  - New and/or updated data
  - Improved tools and knowledge
  - Ever-changing environment
  - More emphasis to identify efforts and target all available nonpoint resources

# Where are we going and where do we need to be?

- Using 12-digit HUCs to aid in guiding project emphasis and results
- Improved accuracy/completeness of impaired stream maps supported by accurate data and continue efforts to define NPS-impaired streams
- Revised (as necessary) Matrix for identifying likely NPS-impaired streams located by 12-digit HUC
- Improved data and understanding of limitations for watershed modeling, calibration and sensitivity analysis by 12-digit HUC
- Expanded recognition of all nonpoint source needs and efforts statewide and Nine Element Watershed Management Plans for all priority watersheds (at a minimum)
- Utilize improved tools as they become available
- Try to assess and forecast the ever changing environment
- Continue to build partnerships and communication
- Improve water quality, one step at a time

# EPA's Nine Elements of an Effective State NPS Management Program

- 1. The program contains explicit short and long-term goals, objectives and strategies to protect surface and ground water.
  - Strengths:
    - - We do have goals, objectives and milestones
    - - Stakeholder input and utilized logic models
    - - Some coordination between State and Federal Programs
  - Challenges:
    - - Goals, objectives and milestones are not specific enough to determine "reasonable" progress annually or three to five years
    - - No quantifiable measure to determine "reasonable" progress (ex. How to measure the water quality (WQ) impact related to outreach/education or BMP implementation improving WQ on a ADEQ segment or watershed level).

# How do we address the challenges?

- Define “reasonable” progress
  - Quantifying progress
    - Calculations (BMP load reductions)
    - Monitoring data – In-stream WQ chemical or habitat monitoring
    - Other - # of BMPs implemented, landowners participating, website hits, etc.
  - Time frame
    - 1 year, 3 years, 5 years or other
- Monitoring of activities (NPS projects and others)
  - Where do the \$’s come from?
  - Criteria and prioritization of what, when and how long to monitor
  - Who and how data is reported
- Focus on smaller scale watersheds
  - 12, 14 digit or field level scale?
- Focus on one specific watershed
  - Criteria for justification
    - Impaired, TMDL or healthy waterbodies
  - What is the “focus” time frame

# EPA's Nine Elements of an Effective State NPS Management Program

- 2. Strengthen working partnerships and linkages to appropriate state, interstate, regional, federal and local group or entities.
  - Strengths:
  - - We have a variety of partners and stakeholders that are active in developing the state NPS Management Program
  - - Cooperative Conservation Partnership Agreement (CCPA) includes Conservation Districts, ANRC, NRCS, AFC, AGFC, UACES and others
    - CCPA does not explicitly describe the function or responsibility of each partner nor does it require a reporting mechanism

# EPA's Nine Elements of an Effective State NPS Management Program

- 2. Strength working partnerships and linkages to appropriate state, interstate, regional, federal and local group or entities.
  - Challenges:
  - - Have few partners that "report" activities or share activities that are directly related to the NPS Management Program
    - Develop MOU/MOA with each Agency, group or entity
    - Criteria for the information or data to be reported
  - - Responsibility, incentive or requirements to report
    - It's the right thing to do, what is the benefit?
    - Credit for progress
    - Do we want it to be an EPA requirement or mandate?

# EPA's Nine Elements of an Effective State NPS Management Program

- 3. State uses balanced approach of NPS programs and implementation that are designed to maximize water quality benefits in targeted watersheds.
  - Strengths:
  - - NPS Management Program funds a variety of diverse projects, partners and activities in multiple watersheds
    - NPS program defines "targeted" as priority watersheds per the risk matrix
    - Currently fund monitoring, BMP implementation, outreach and education
    - Have a variety of partners to share experiences (success and failure)
    - Opportunity to learn and tailor initiatives to the desired audience, landowner or situation



# EPA's Nine Elements of an Effective State NPS Management Program

- 3. State uses balanced approach of NPS programs and implementation that are designed to maximize water quality benefits in *targeted* watersheds.

- Challenges:

- - Not seeing a response in WQ improvement
- - Sustainability is poor 3-5 years after project is completed
- - Repetitive funding of similar or like projects with no demonstration of improvement
- - Lack of initiative to take a leadership role
- - A "wait and see" approach
- - Money
  - To administer an initiative
  - To fund the need implementation(s)
    - ANRC, EQIP, MRBI, NWQI Cost share rates
    - Criteria to qualify – 319 projects, ANRC Cost share and NRCS Programs

# EPA's Nine Elements of an Effective State NPS Management Program

- 4. The NPS Program abates known WQ impairments from NPS pollution and protects threatened and high quality waters from significant threats caused by present and future NPS impacts.
  - Strengths:
    - - SWAT modeling, land cover and land use, local knowledge and input. Data is good when we have it.
    - - Risk Matrix
    - - Communication between partners of programs, initiatives and priorities
    - - Variety of programs or initiatives at a Federal or State agency level
    - - Voluntary approach

# EPA's Nine Elements of an Effective State NPS Management Program

- 4. The NPS Program abates known WQ impairments from NPS pollution and protects threatened and high quality waters from significant threats caused by present and future NPS impacts.
  - Challenges:
  - - No crystal ball – Herbicide resistant or invasive species, etc.
  - - Understanding or effectively communicating the problem of NPS or its impact on the individual landowner or the community
  - - Distinct authority or responsible entity
    - Few “sparkplugs” to initiate an action
    - Lack of local advocates
    - Conservation Districts utilizing their full authority
  - - No method to share knowledge, data or information that may exist – no centralized data repository
    - Farm Bill privacy act
  - - It is a voluntary approach with sporadic response
    - - Participants - May not be the most critical area
    - - Absentee landowners
    - - “I’m not the problem” attitude

# EPA's Nine Elements of an Effective State NPS Management Program

- 5. The NPS Program identifies watersheds impaired by NPS pollution as well as priority unimpaired waters for protection. Further, the State has an established process to assign a priority for those watersheds needing further detailed assessments, watershed management plans and the progress of implementing developed plans.
  - Strengths:
  - - Risk Matrix
  - - The number of partners – mainstream communication related to major initiatives and programs
  - - Outreach and educational opportunities available
    - IRWP, WCRC, AGFC, AACD, AACDE, workshops and activities
    - UACES – Arkansas Captains and Corporals project

# EPA's Nine Elements of an Effective State NPS Management Program

- 5. The NPS Program identifies watersheds impaired by NPS pollution as well as priority unimpaired waters for protection. Further, the State has an established process to assign a priority for those watersheds needing further detailed assessments, watershed management plans and the progress of implementing developed plans.

## Challenges:

- - Few formalized groups working toward the same goals if they exist at all
- - Not enough nine element WMPs or any guiding document
- - No local leader or no one willing to "take the bull by the horns"
- - Failure to recognize potential future impacts
  - Landowners – grandpa did it like that or "..they are not telling me how to run my operation." NPS and improving WQ is not a land rights issue!!
  - Potential litigation or legal challenges
  - Non-regulated to regulated activities
  - Economic impact
    - Compliance versus non compliance
    - Permitting cost

# EPA's Nine Elements of an Effective State NPS Management Program

- 6. The State implements all program components required by section 319(b) of the Clean Water Act by; establishing strategic approaches and adaptive management to achieve and maintain WQ standards as expeditiously as practical, reviewing and updating program components as appropriate and includes a **mix of regulatory**, non-regulatory, financial and technical assistance as needed.

- Strengths:

- - Some watershed have WMPs and its citizenry is active in addressing WQ issues and concerns
- - Cooperation, potential funding sources and enhanced partnerships between State and Federal agencies
  - MRBI
  - NWQI
  - State Technical Committee
  - CCPA
  - Discovery Farms

# EPA's Nine Elements of an Effective State NPS Management Program

- 6. The State implements all program components required by section 319(b) of the Clean Water Act by; establishing strategic approaches and adaptive management to achieve and maintain WQ standards as expeditiously as practical, reviewing and updating program components as appropriate and includes a **mix of regulatory**, non-regulatory, financial and technical assistance as needed.
- Challenges:
  - - Not enough individuals participating or comprehending the value of available programs
  - - It's all about the \$'s and I want / need it now
  - - "It will never happen here" and "they can't tell me what to do" attitude
  - - Failure to recognize potential future impacts
  - - Programs with "one-dimensional" components
    - Agriculture versus urban issues
    - Urban or municipal impacts
    - "Lands" that are neither agriculture or forest dominated
  - Ability for 319 Program to focus and leverage other Programs' \$'s

# EPA's Nine Elements of an Effective State NPS Management Program

- 7. The State identifies Federal programs and activities which could be managed more consistently with the State NPS programs' objectives and priorities. Seek EPA assistance to help resolve issues as they arise
- Strengths:
  - - Existing and enhanced partnerships with:
    - NRCS
      - MRBI, NWQI, CREP, etc.
    - USCOE
      - Wetland mitigation bank review
  - - Arkansas State Water Plan
  - - Annual NPS Management Plan Update meeting
    - Ability for agencies, groups and organization to direct the focus of the program or set priorities
    - Open forum for discussion, cooperation or resolve issues



# EPA's Nine Elements of an Effective State NPS Management Program

- 7. The State identifies Federal programs and activities which could be managed more consistently with the State NPS programs' objectives and priorities. Seek EPA assistance to help resolve issues as they arise
- Challenges:
  - - The mission of other agencies may conflict with the NPS Programs' mission, priorities, goals or objectives
  - - Lack of participation, assistance, response or coordination from other State agencies or programs
  - - EPAs lack of ability to intervene for a positive outcome
    - EPAs ability to communicate within their own agency
      - EPAs review of wetland mitigation bank location and service area - is outside of the watershed in which the bank is located. Credits to be sold to mitigate activities occurring in a NPS priority and TMDL watershed
      - Forcing, listing waters and or developing TMDL on waterbodies not listed on the States 303(d)
  - Participation in annual NPS Management Program update meeting – the decision makers and follow through

# EPA's Nine Elements of an Effective State NPS Management Program

- 8. The State manages and implements the NPS Program efficiently and effectively including financial management.
- Strengths:
  - - Process in place for NPS Program management
    - To update the NPS Management Plan
    - Risk Matrix
    - Priority watershed selection
    - Develop goals, objectives and milestones
  - - Standardized project management
    - Project selection criteria
    - Project management
    - Fiscal responsibility
    - Evaluation
  - - Transparency of all processes

# EPA's Nine Elements of an Effective State NPS Management Program

- 8. The State manages and implements the NPS Program efficiently and effectively including financial management.
- Challenges:
  - - Various abilities of partners
  - - Potential project sponsors contacting ANRC for instructions
  - - Giving up before trying
  - - Someone with one bad experience will tell ten others, however someone with a good experience will only tell one other
  - - Shared responsibilities, assistance in determining the effect of the Program on Water Quality
  - - Shared financial assistance to measure effect of the NPS Program
    - NRCS – MRBI monitoring
    - ADEQ – watershed monitoring on a 8 or 12 digit scale
    - Utilization of QA/QC acceptable data
    - Standardization of data collection and reporting format that is usable and can be uploaded in to STORET / WQX

# EPA's Nine Elements of an Effective State NPS Management Program

- 9. The State reviews and evaluates the NPS Management Program using environmental and functional measures of success and revised the Program at least every 5 years.
- Strengths:
  - - Process in place for NPS Program adaptive management
    - To update portions of the NPS Management Plan annually
    - To update the NPS Management Plan holistically every 5 years
    - Access and identify priorities or emerging issues annually
    - Access and revise Risk Matrix as necessary
    - Priority watershed selection
  - - Flexibility thru annual meetings to edit or modify existing NPS Management Plan to address emerging issues

# EPA's Nine Elements of an Effective State NPS Management Program

- 9. The State reviews and evaluates the NPS Management Program using environmental and functional measures of success and revised the Program at least every 5 years.
- Challenges:
  - - Developing the correct measure of appropriateness, effectiveness or functionality of the NPS Management Program
  - - Identifying the correct "*measurement*" tool(s)
    - WQ in-stream chemical monitoring for change
    - Habitat assessment
    - Behavioral change – pre, post assessment, 1 – 5 year assessments
  - - Quantifying environmental change, conditions or results from implemented programs – What program or initiatives are have the most impact?
  - - Who pays? It's a State NPS Management Plan not an ANRC plan
    - Shared responsibility
    - Reporting / documenting WQ change
    - Sharing data
    - Sharing cost

# What's Next and Who is Effected?

- - How do we institute shared responsibility and accountability?
  - MOUs, MOAs or other?
    - With who?
      - State agencies , groups and organizations
      - Federal agencies
    - Are agencies, organizations and groups willing to 1) assist in the development, 2) sign, and 3) abide by conditions
    - Who should facilitate the protocol for development? – Not EPA
    - Other methods or suggestions
    - Time frame to develop
  - Authority?
    - Action by State Legislature
    - Arkansas State Water Plan
    - NPS Management Plan

# What's Next and Who is Effected?

- - How do we institute shared responsibility and accountability?
  - Develop a common data repository?
    - Who and how to initiate the process?
    - Where, how, who manages and develops criteria
    - Who pays? State, Federal or shared cost between agencies, groups or organizations
      - Who determines appropriation of cost?
      - User fees?
  - Who is impacted?
    - Landowners / Land users – voluntary non-regulatory programs and initiatives ineffective – move toward regulations, permits, fees and operational changes
    - Municipalities – increase fees from customer base to meet infrastructure enhancement or upgrades
    - State Programs – no success in improving WQ change not going to get \$'s
  - Time Frame?
    - Is it realistic and / or obtainable?

# Questions

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