The Arkansas Annual Report

Prepared Pursuant to Section 319 (h) of the Federal Clean Water Act

Arkansas Natural Resources Commission

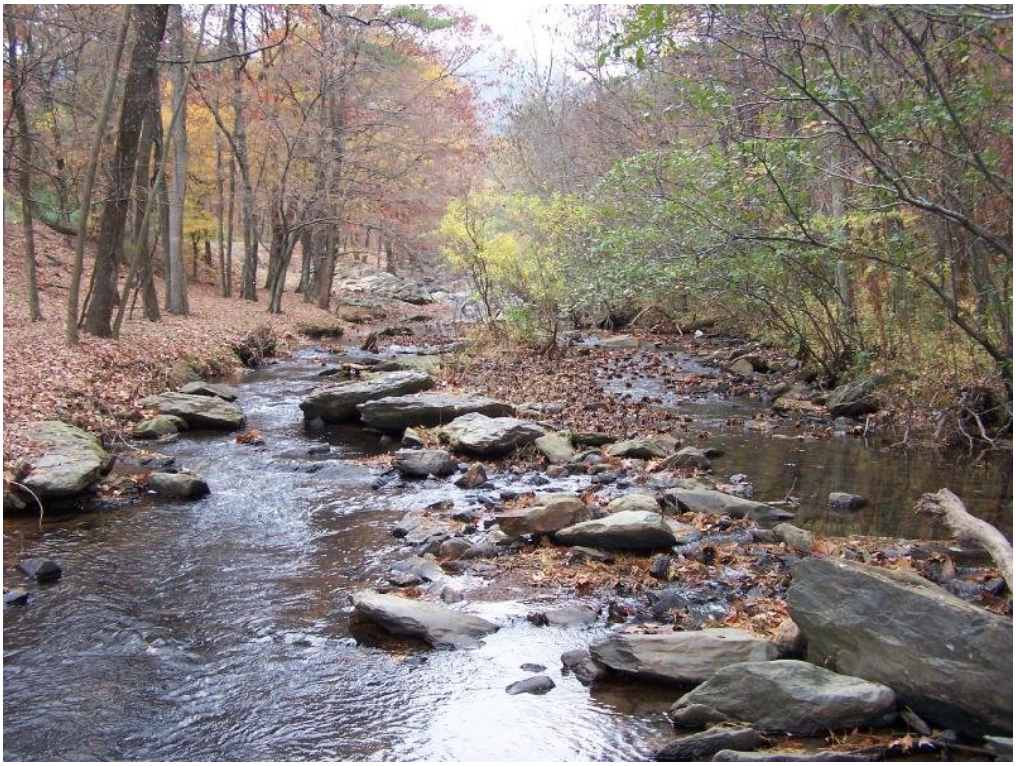


TABLE OF CONTENTS

1 SUMMARIES

Notes from the Director:

The Arkansas Natural Resources Commission (ANRC) is proud to provide this Annual Report for the Arkansas Nonpoint Source (NPS) Pollution Management Program. 2014 proved to be a very productive year for ANRC and one of the most substantial years for the NPS Program since its beginning in Arkansas in the 1990s.

After 3 years of intensive work ANRC completed an update of the Arkansas State Water Plan, in which the NPS Program is an integral part. The Arkansas Water Plan details current water quantity, quality, availability, needs and infrastructure. Utilizing years of historical data, modeling and direct input from over 1,000 different individuals. The Plan forecasts water quantity, quality, availability, needs and infrastructure components through the year 2050. The Plan specifically addresses the NPS Program and recommends additional state resources should be sought to enhance the program.

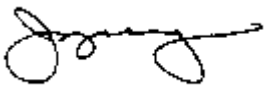
A major goal was realized this past year for the NPS Program. Through the diligent work of the NPS staff, conservation districts, state and federal agencies and multiple other partners, six stream segments in two different river basins were "delisted", or basically removed from the States list of impaired waters. These delistings were the culmination of years of work and implementation by landowners that utilized EPA 319(h), USDA – NRCS programs and other various partner resources for technical and financial assistance. The delistings allowed ARNC to submit, have accepted and published two success stories. A third success story has been completed and is currently under review at the time of this report.

The progress did not end with the success stories. The Arkansas NPS Management Program 2011-2016 Update (Update) was fully approved by the Region in August. The Update was originally submitted in March 2011 but due to the lack of appropriate measurable milestones and impending changes nationally to the program, additional work was necessary for the Update to be fully acceptable. Over 80 individuals representing governmental agencies (state and federal), conservation districts, academic institutions, non-governmental groups and organizations assisted ARNC to formulate the milestones and the Update.

Additionally, at the writing of this report two nine-element watershed management plans are under review. It is anticipated these plans will be completed and fully accepted in early 2015. Furthermore, contractual agreements are in place and three more plans are scheduled to be developed in 2015. The funding for these plans are from state funds and is a direct correlation to the Arkansas Water Plan recommendations for the NPS Program previously mentioned.

The NPS Management Program is and continues to be a partnership between federal, state, and local entities. This partnership continues to be the "backbone" and strength of the program. Communication and coordination are paramount to obtain positive results and to enhance water quality. As you review this report that become abundantly clear. The dedication of the EPA, Region VI, state and federal agencies, groups, organizations and the citizens of this great state are crucial. Your ongoing participation in the NPS program is deeply appreciated.

Sincerely, J. Randy Young



Executive Summary:

The Arkansas Natural Resources Commission (ANRC) is the lead agency responsible for the Arkansas NPS Management Program. ANRC, its state partners and stakeholders, collectively known as the "work group", collaboratively work together to develop the NPS Pollution Management Plan (Plan). The Plan provides a broad framework and aspirational objectives and milestones for implementation of the NPS Pollution Management program. The Plan also utilizes a risk matrix assessment tool to prioritize watersheds for resource allocation. The Plan is comprehensively updated every five years based upon an adaptive approach. Annual update meetings are held to review and discuss new, additional, or updated information and if appropriate to be included into the Plan.

The Arkansas Department of Environmental Quality (ADEQ) is the primacy agency for overseeing water quality in Arkansas. ADEQ is required to develop and provide an Integrated Water Quality Assessment Report and listing, commonly referred to as the 305(b) report and the 303(d) list, every two years for EPA acceptance and approval. At the writing of this report, the 2010, 2012 or 2014 305(b) reports have not been approved by EPA. The assessment and report defines if waterbodies (streams, lakes, and impoundments) are meeting and supporting their designated uses. The 305(b) report and subsequent 303(d) list provide the initial and foremost basis to direct efforts to restore water quality within the State.

The 2014 Annual Report utilizes a different format from previous years' reports. The report focuses on accomplishments made in meeting the milestones of the NPS Program. It reflects projects, efforts, and activities initiated, implemented and completed by various partners and stakeholders within the past year that address nonpoint source pollution. The Annual Report also contains calculated load reductions of sediment and nutrients and a depiction of federal dollars allocated categorically.

Many federal and state agencies, non-governmental organizations (NGOs), and individuals have invested multiple resources to improve water quality in Arkansas. In some areas and watersheds, water quality data and trends are showing improvement. As in years past and as we continue to move forward water quality will continue to improve as:

- Watershed stakeholders become more actively involved in restoration efforts. State and federal agencies continue to provide technical and financial assistance but it is imperative local stakeholders take ownership and lead water quality restoration or protection efforts.
- Education materials specific to individual watersheds are developed and delivered. Watershed stakeholders must organize and identify common water quality goals. Collective strategies and efforts culminate into 1) watershed plans, 2) schedules of implementation and 3) reassessments.
- Conservation plans are developed, utilized, and implemented by landowners. Comprehensive Nutrient Management Plans (CNMP) are being written and followed by landowners.
- Assessments, tools, evaluation efforts, and milestones are utilized and continue to be evaluated
- New techniques are taught and methods of program delivery that demonstrate social and financial sustainability

The primary and pinnacle evaluation of the NPS Program and Plan lies within the 303(d) list. As impaired waterbodies are restored, they are removed from the list. The level of effort needed to remove a waterbody is enormous and cannot be accomplished by a single agency, program, project or activity. It is essential ANRC, its partners and stakeholders work together in a collaborative effort to improve water quality.

2 Other Entities That Augment Section 319(h) Programs and Initiatives

The Arkansas NPS program has various partners and other entities that work to reduce non-point source pollution entering waterbodies within the state of Arkansas. Partners such as the Natural Resources Conservation Service (NRCS), Arkansas Natural Heritage Commission (ANHC), The University of Arkansas Cooperative Extension Service (UACES) and various other entities that fund and/or implement projects that augment the efforts of The Arkansas 319(h) program are extremely valuable. The following are several examples of projects from numerous entities that have implemented projects on the ground to enhance the mission of the Arkansas NPS program.

Natural Resources Conservation Service

National Water Quality Initiative (NWQI)

Through the National Water Quality Initiative in 2014, the Natural Resources Conservation Service continues to work with farmers and ranchers in 174 watersheds throughout the Nation to improve water quality. In 2014, NRCS provided nearly $33 million in financial assistance to help farmers and ranchers implement conservation practices to reduce nitrogen, phosphorous, sediment and pathogen contributions from agricultural land. This is the third year of the initiative, and NRCS provided $28 million in 2013 to farmers and $34 million in 2012 to farmers and ranchers.

NWQI is an ongoing, regional initiative in Arkansas that has provided funding for three 12-digit Hydrologic Unit Codes (HUCs) within the Bayou Bartholomew watershed in Arkansas. The purpose of this initiative is to assist producers in addressing high priority water resource concerns in small watersheds with streams or water bodies that are targeted for impairment, threatened with impairment or have established TDMLs. Cousart Bayou-Little Cypress Bayou (080402050302), Upper Deep Bayou (08040205030) and Lower Deep Bayou (080402050304) participants received this funding in FY 2014 for edge of field monitoring projects.

NRCS worked closely with partners, including other federal and state agencies, and Soil and Water Conservation Districts, to improve the eligible priority watersheds for 2014. Eligible producers received assistance under the Environmental Quality Incentives Program for installing conservation systems that included practices such as nutrient management, cover crops, conservation cropping systems, filter strips, terraces and in some cases, edge-of-field water quality monitoring. Improving water quality and aquatic habitats in Cousart Bayou-Little Cypress Bayou, Upper Deep Bayou and Lower Deep Bayou watersheds in Jefferson and Lincoln counties is the ultimate goal of this initiative. Arkansas' three watersheds total 62,473 acres and were selected based on the high amount of sediment and total phosphorus concentration that flow into the main stem of Bayou Bartholomew. In FY 2014, a total of 33 contracts totaling $992,024 were developed, enrolling 6,021 acres.

The Mississippi River Basin Healthy Watershed Initiative (MRBI)

Through MBRI, NRCS and its partners used a "conservation systems approach" to help producers avoid, control and trap nutrients and sediment to address water quality concerns. This is accomplished by optimizing nitrogen and phosphorus use efficiency in agricultural fields, minimizing nutrient and water runoff and improving soil health.

MRBI uses key conservation practices, such as nutrient management, conservation crop rotation, cover crops and residue and tillage management, to address critical water quality concerns of the region. These practices will continue to reduce the impact of nutrient loading on the health of local water bodies and, eventually, the Gulf of Mexico. Wildlife species also benefit from producer activities in the Mississippi River Basin by restoring and managing wetlands and upland habitats.

NRCS provides producers with technical and financial assistance through the Cooperative Conservation Partnership Initiative (CCPI) and the Wetlands Reserve Enhancement Program (WREP) using existing Farm Bill conservation programs. MRBI producers were also eligible to receive financial and technical assistance to voluntarily install edge-of-field monitoring for water quality systems in selected watersheds. This monitoring will help NRCS assess environmental outcomes of this work.

Arkansas has 24 active MRBI projects, 19 Cooperative Conservation Partnership Initiative (CCPI) projects and five Wetlands Reserve Enhancement Program (WREP) projects. The total approved funding for the life of the projects is more than $123 million. Through the CCPI projects, 453 contracts were funded on 107,998 acres for more than $27 million. WREP projects totaled 11 easements on 4,224 acres for more than $11.8 million.

The top five practices applied in FY 2014 were: nutrient management (36,080 acres); cover crop (11,364 acres), irrigation pipeline (208,265 feet), residue and tillage management, mulch till (6,654 acres); and structure for water control (56 structures).

Wetlands Reserve Enhancement Program (WREP) and Wetlands Reserve Program (WRP)

WREP is an ongoing, regional initiative that includes multiple watersheds within the state of Arkansas. The Boeuf River watershed is an eight-digit HUC receiving financial assistance to implement projects within the watershed. Boeuf River Watershed has received NRCS and Partner Funding in the amount of $2,178,316.

Cache River and L'Anguille River watersheds are eight-digit HUCs receiving financial assistance to implement projects. These watersheds have received NRCS and Partner Funding: in the amount of $214,748. Cache River and Lower White-Bayou Des Arc wetlands restoration is a project funded by NRCS through WREP and partner funding from in the amount of $3,030,000

Lower Mississippi River Batture hardwood forest and wetlands restoration project has received funding from NRCS and partner funding in the amount of $20,231,933 The project goals are to purchase and restore easements and implement Best Management Practices (BMPs) to enhance wildlife habitat and reduce sediment and nutrients from entering waterbodies within the watershed. The Wetlands Reserve Program (WRP) is a voluntary program offering landowners the opportunity to protect, restore and enhance wetlands on their property. NRCS enrolled 10 tracts and obligated more than $3.4 million in FY 2014. Wetlands were restored on more than 11,250 acres with total obligations of more than $11 million. NRCS closed on 42 WRP and Wetlands Reserve Enhancement Program (WREP) easements, decreasing

the back log by nearly 50 percent. Arkansas ranks third in the nation in the number of acres enrolled with more than 225,000. When fully implemented, the projects will prevent sediment and nutrients from entering waterways, decrease flooding and improve bird and fish habitat. NRCS estimates that this investment will restore 11,400 acres to wetland habitat.

Environmental Quality Incentives Program (EQIP)

EQIP promotes agricultural production and environmental quality as compatible goals. It provides financial and technical assistance to install or implement structural and management conservation practices on agricultural land. EQIP priorities in Arkansas are to reduce erosion; reduce pollution from animal wastes, nutrients and sediments; improve irrigation and reduce dependence on ground water for irrigation; improve forest lands; improve grazing lands; and improve wildlife habitat. Arkansas farmers received more than $63.9 million in EQIP financial assistance in FY 2014, funding 2,786 applications. This financial assistance will help install conservation practices to reduce soil erosion, use water more efficiently and improve grazing land, wildlife habitat and water quality on more than 534,034 acres. Other initiatives under EQIP included Energy (115 contracts for $1.3 million), Organic (3 contracts for $26,098) and Seasonal High-Tunnel (51 contracts for $328,196).

Illinois River Sub-Basin and Eucha-Spavinaw Lake Watershed Initiative (IRWI)

The Illinois River Sub-Basin and Eucha-Spavinaw Lake Watershed Initiative (IRWI) is an ongoing initiative within Illinois River Sub-Basin (11110103) and Eucha-Spavinaw Lake (1107020903) watersheds to reduce sedimentation and nutrient loads to both of these watersheds. The project is located in portions of Benton and Washington counties in Arkansas. Funding is assisting landowners in the 576,517 acre area over an eight-year period. Farmers and ranchers in the project area received more than $4 million in financial assistance in FY 2014, funding 151 applications on 9,803 acres. The top five practices applied in FY 2014 were: Amendments for the treatment of animal waste (259,917 animal units), forage and biomass planting (4,773 acres), fence (89,762 feet), watering facility (36 facilities) and prescribed grazing (3,529 acres).The function of this project is to implement BMPs to reduce nutrients and sediment within the watersheds. Financial assistance for this project is provided by the Environmental Quality Incentive Program (EQIP).

Conservation Stewardship Program (CStP)

CStP encourages agricultural and forestry producers to undertake additional conservation activities while improving and maintaining the existing conservation on their land. The program provides financial and technical assistance to conserve and enhance soil, water, air and related natural resources. In FY 2014, 537 contracts were developed enrolling 547,704 acres. These contracts will provide more than $17.8 million in financial assistance to participants over the five-year contract agreements. Total CStP payments in 2014 were $58 million, the most in the country.

Agricultural Water Enhancement Program (AWEP)

The Little Red River Irrigation District AWEP project addresses water quantity and quality concerns in the Little Red River Watershed in White County. This area encompasses approximately 83,838 acres southeast of the town of Searcy containing approximately 34,000 acres of irrigated cropland. The area has been designated as a critical ground water use area by the Arkansas Natural Resources Commission. Farmers in the project area received $850,316 in financial assistance in FY 2014 funding 14 applications on 3,712 acres.

Wildlife Habitat Incentive Program (WHIP)

WHIP facilitates environmental improvements for wildlife, encouraging producers to be good stewards of the land. The program addresses wildlife habitat in riparian areas, wetlands, uplands, cave ecosystems and elk and quail habitat. Arkansas landowners received more than $2.5 million through 156 contracts on nearly 27,000 acres.

USDA Strike Force Initiative

The USDA Strike Force initiative is helping relieve persistent poverty in high-poverty counties by accelerating USDA assistance while working closely with Community Based Organizations.

More than $2.8 million in NRCS financial assistance funded 72 contracts on 10,268 acres in Arkansas' Strike Force counties in FY 2014 through EQIP. The counties are: Arkansas, Bradley, Chicot, Clark, Columbia, Dallas, Desha, Drew, Hempstead, Howard, Jackson, Lafayette, Lawrence, Lee, Mississippi, Monroe, Nevada, Newton, Ouachita, Phillips, Randolph, Searcy, Sevier, St. Francis and Woodruff.

Water Quality Monitoring (Edge of field)

A new project to monitor edge-of-field water quality on agricultural lands in targeted watersheds throughout the state began in 2013 and continued into FY 2014. Producers use the data from water quality monitoring and evaluation to measure the effectiveness of conservation practices and systems such as nutrient management, cover crop and irrigation water management. Evaluation of conservation practice effectiveness through edge-of-field monitoring will lead to a better understanding of nutrient and sediment loading and will assist NRCS and participants in adapting or validating the application of conservation measures. Arkansas landowners received more than $1.78 million through 14 contracts on 1,358 acres to lead the nation in the program.

The following sponsors are funded by NRCS programs

Bayou Meto Water Management District (Funded by MRBI, WHIP and EQIP)

Middle Bayou Meto Project is within Bayou Meto (08020402) watershed. The purpose is to implement BMPs to improve water quality within the watershed by reducing the amounts of nitrogen, phosphorous and sediment entering waterbodies within the watershed through establishment and use of NRCS approved BMPs.

Lower Arkansas is a project located within the Lower Arkansas (08020401) watershed. It offers conservation practices through MRBI-EQIP program to improve water quality within the watershed by reducing nitrogen, phosphorous and sediment levels entering into streams.

Arkansas County Conservation District (Funded by MRBI)

Arkansas County Bayou Meto is within Bayou Meto (08020402) watershed. The purpose is to implement BMPs to improve water quality within the watershed by reducing the amounts of nitrogen, phosphorous and sediment entering waterbodies within the watershed through establishment and use of NRCS approved BMPs.

Phillips County Conservation District (Funded by MRBI)

Big Creek Watershed Project is within Big Creek (08020304) watershed. The focus is on improving nutrient management, reducing nutrient loads entering the watersheds and maintaining agricultural productivity practices offered through EQIP.

Arkansas Association of RC&D Councils (Funded by MRBI)

Cache River Nutrient Loss Reduction is within the Cache River (08020302) watershed. The purpose is to implement BMPs to improve water quality within the watershed by reducing the amounts of nitrogen, phosphorous and sediment entering waterbodies within the watershed through establishment and use of NRCS approved BMPs.

White River Irrigation District (Funded by US Army Corp of Engineers, WHIP and WREP)

The Grand Prairie Project is within the Lower White (08020303) watershed. The goals are to improve water quality by reducing nitrogen, phosphorous and sediment levels in the watershed by implementing BMPs.

L'Anguille River Watershed Coalition (Funded by MRBI, WHIP and CStP)

“Future Solutions Now to Restore the Health of the L'Anguille River” is a project within the L’Anguille (08020205) watershed. The purpose is to implement BMP’s to reduce sediment and nutrients from entering waterbodies within the watershed through establishment and use of NRCS approved BMPs.

Arkansas Association of Conservation Districts (Funded by MRBI, WHIP and EQIP)

Lower Bayou Macon is a project located within Bayou Macon (08050002) watershed. This will serve to implement BMPs to reduce sediment and nutrients from entering waterbodies within the watershed. Additionally, edge-of-field monitoring is a component of this project.

Bayou Boeuf is a project located within Boeuf River (08050001) watershed. The goal will be to implement BMPs in order to reduce sediment and nutrients from entering waterbodies within the watershed.

Desha County Conservation District (Funded by MRBI and EQIP)

Middle Bayou Macon is a project located within Bayou Macon (08050002) watershed. The goal was to improve nutrient management in the watershed in the areas of application and utilization of nitrogen and phosphorus, reduce nutrient loads entering the watershed, maintain agricultural productivity, enhance wetlands, improve fish and wildlife habitat, and improve water quality and biological health in streams from local to the 8 digit watershed level.

Jackson County Conservation District (Funded by MRBI and EQIP)

Middle Cache River is a project within the Cache River (08020302) watershed. It served to implement BMPs to reduce sediment and nutrients from entering waterbodies within the watershed. Additionally, edge-of-field monitoring is a component of this project.

Wetland Restoration in the Cache River and Lower White-Bayou Des Arc Watershed is another project within the Cache (08020302) and Lower White-Bayou Des Arc (08020301) watersheds. The goals were to purchase and restore easements and implement BMPs to enhance wildlife habitat and reduce sediment and nutrients from entering waterbodies within the watershed.

East Arkansas Enterprise Community (Funded by MRBI and EQIP)

East Arkansas Enterprise Community's Best Management Practices for Nutrient Reduction is a project located within the L'Anguille River (08020205) watershed. The focuses are to target and provide outreach to minority and historically underserved landowners as well as provide technical and financial assistance to implement BMPs.

Lee County Conservation District (Funded by MRBI and EQIP)

Outlet Larkin Creek Watershed is a project located within the L'Anguille River (08020205) watershed. The goal of this project is to implement BMPs in order to reduce sediment and nutrients from entering waterbodies within the watershed through establishment and use of NRCS approved BMPs.

Mississippi River Trust (Funded by WREP)

Bottomland Hardwood Forest and Wetland Restoration in the Lower Mississippi River Batture Lands is a project in the Lower Mississippi-Memphis (08010100), Lower Mississippi-Helena (08020100) and Lower Mississippi- Greenville (08030100) watersheds. It focuses on the purchasing of easements, BMP implementation and habitat restoration to reduce sediment and nutrients within the affected batture lands.

Projects funded by other state agencies

Arkansas Natural Heritage Commission (ANHC)

The Big Creek Water Quality Assessment and Cove Creek Water Quality Assessment are ongoing projects within the Little Red River (11010014) and Cadron Creek (11110205) watersheds that seek to assess water quality through monitoring of samples and education within the watershed. Sampling began in FY 2014 and ANHC is in the process of compiling data for these projects at the time of this publication.

The Northwest Arkansas Drinking Water Improvement-Beaver Lake Sedimentation Reduction is within Beaver (11010001) watershed that will serve to implement BMPs as well as education and monitoring. The implementation of these practices will not only reduce sediment from entering the watershed, but also enhance in-stream habitat for wildlife.

University of Arkansas Cooperative Extension Service (UACES)

Northwest Arkansas Regional Urban Storm Water Program and Washington County Urban Storm Water Education are projects in Beaver (11010001), Illinois River (11110103) and Elk (11110702) watersheds. These projects serve to educate the public through education and outreach, hands-on youth education, municipal employee training, public presentations, rain barrel workshops, creek/lake clean ups, construction workshop(s), Blue Pathways (LID Landscaping workshop(s) and development/distribution of fact sheets.

Partnerships making a difference

The common goal of the Arkansas NPS program and its partners is to reduce, control and manage NPS pollution to the highest possible degree. Through the financial assistance and guidance of EPA, NRCS, ANHC, UACES and others, we are all closer to achieving this goal. In FY 2014, NRCS obligated roughly 157 million dollars for projects within the state of Arkansas. The Arkansas 319(h) program allocated dollars from a drastically smaller EPA allocation to projects that will provide the most NPS benefit throughout the same time span. The Arkansas 319(h) program is fortunate to have assistance from other entities in reaching the goals of reducing NPS runoff. Financial assistance in the form of NRCS initiatives and programs make it possible for projects to be implemented within targeted watersheds to assist numerous entities achieve success. The NPS staff will continue to exercise diligence in fiscal responsibility and will be looking forward to the continued cooperation with partners and other entities for years to come.

3 Program Success Stories in FY2014

In FY 2014, ANRC had two success stories written and approved by EPA. Two reaches of the St. Francis River and four reaches of Bayou DeView were delisted by the Arkansas Department of Environmental Quality (ADEQ). These success stories were made possible by the efforts and assistance of the U.S. Environmental Protection Agency (EPA), the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS), Cross County Conservation District (CCCD), the Poinsett County Conservation District (PCCD), the Jackson County Conservation District (JCCD), The Nature Conservancy (TNC), ADEQ, the landowners involved and other partners for all of their participation and assistance that helped to make these successes a reality.

St. Francis River

Erosion and siltation from agricultural row crop fields contributed high levels of sedimentation to the St. Francis River. ADEQ considers a stream reach in this planning segment (planning segment 5A) to be impaired by turbidity if more than 25 percent of all samples exceed 100 nephelometric turbidity units (NTU), based on 5 years of data before the assessment year. A 2006 ADEQ assessment found that stream reach 008 (55.9 miles long) and stream reach 009 (17.1 miles long) did not meet the water quality standard for turbidity. The 2006 assessment showed that 26 percent of the water samples from these two reaches exceeded 100 NTU for all flows, indicating that the river's aquatic life (fisheries) designated use was not being supported. Therefore, ADEQ added these two reaches to the state's 2006 CWA section 303(d) list of impaired waters for turbidity. ADEQ identified the source as agriculture.

In 2009 the Cross County Conservation District (CCCD) began offering financial and technical assistance to help landowners implement water control structure BMPs. The BMPs prevent sediment from leaving agricultural fields by controlling the rate, velocity, and volume of field runoff. Many landowners took advantage of this opportunity; they installed 108 water control structures along with 10,120 feet of water transfer pipeline. In 2004 the CCCD purchased a no-till drill that could be used by landowners with small agricultural operations. No-tilling allows for planting seed into the previous year's crop residue without any tillage. The crop residue protects the soil and lessens the opportunity for erosion. From 2004 through 2009, landowners used the drill to reduce erosion on more than 5,400 acres.

In 2010 the Poinsett County Conservation District (PCCD) followed CCCD's lead and began providing financial and technical assistance to landowners to help implement water control structure BMPs. The PCCD implementation project resulted in the addition of 287 water control structures on 63 different farms. As a result of the practices implemented in the watershed, turbidity levels have decreased. The 2014 ADEQ water quality assessment has shown that exceedances of the turbidity standard for all flows (100 NTU) declined to 23 percent in St. Francis River reaches 008 and 009. Therefore, ADEQ has removed both reaches from Arkansas' 2014 303(d) list for of impaired waters.

Section 319 funds in the amount of $439,964 were used by CCCD to help purchase BMP materials and $19,688 were also used to purchase a no-till drill. Local landowners also provided $439,964 in cash match to purchase materials. PCCD used section 319(h) funds in the amount of $84,669 to help purchase BMP materials. Local landowners also provided $84,669 in cash match.

Bayou DeView

Bayou DeView is an 83-mile-long waterway that flows through parts of Woodruff, Monroe, Poinsett, Cross, Craighead and Jackson counties in northeastern and east-central Arkansas. The stream passes through the eastern portion of the Cache River watershed and is included within its boundaries. Bayou DeView's relatively large watershed (approximately 30 percent of the entire Cache River watershed) begins in Craighead County, Arkansas, and ends with the stream's confluence with the Cache River in Monroe County, Arkansas. ADEQ has listed Bayou DeView as a Channel-Altered Delta Ecoregion Stream.

Runoff from agricultural fields was contributing excess lead to Bayou DeView. An ADEQ assessment, performed between April 2006 and March 2011, examined the stream's existing 2002–2003 data. The assessment found that reach 004 (21.2 miles long), reach 005 (8.6 miles long), reach 006 (10.2 miles long) and reach 007 (18.2 miles long) did not meet the state's water quality standard for lead. A stream is considered impaired, by ADEQ, if more than one sample during the 3-year period of record exceeds its applicable criteria for lead, which varies based on water hardness. Data exhibited three exceedances in 2003, prompting ADEQ to add four consecutive upstream reaches to the state's 2012 CWA section 303(d) list of impaired waters for lead. ADEQ completed draft total maximum daily loads (TMDL) for lead and total dissolved solids (TDS) for the Cache River and Bayou DeView in 2012.

In 2001 the Jackson County Conservation District (JCCD) and The Nature Conservancy (TNC) began providing technical and financial assistance to help landowners implement water control and conveyance best management practices (BMPs) to manage the discharge of runoff from agricultural fields. Many landowners took advantage of this opportunity. They installed 430 water control structures, preventing approximately 36,980 tons of soil from eroding and entering Bayou DeView. These BMPs help to prevent sediment (which carries lead) from leaving agricultural fields by controlling the rate, velocity and volume of the runoff. By slowing the runoff and preventing the sediment from reaching the stream, the BMPs decrease the amount of lead that enters the stream.

In 2004 TNC proposed a work plan for a series of integrated sediment, hydrology, geomorphology and biology monitoring surveys. The surveys culminated in a report and spatial relational database containing a priority ranking of the Cache River's tributary streams. Because of the short length of the study, however, no flow regime or water quality trends could be established for statistical predictions.

From 2006 until 2009, TNC began a second phase of the project. Critical stream bank erosion areas were identified, ranked and prioritized based on the sediment contribution from the sub watersheds to the main stem of the Cache River. This data was used for future implementation projects designed to reduce sediment inputs in the watershed through BMP installation. Additionally, it allowed for a system of ranking streams in the priority watershed. As a result, ANRC was able to make more precise data-driven management decisions concerning funding allocation in the watershed.

The Cross County Conservation District (CCCD) installed water conveyance and control structures in the watershed from 2009 to 2011. This project included approximately 116,000 feet of pipe for water conveyance and water control structures, resulting in an estimated soil savings of approximately 220,000 tons per year.

ANRC and its partners successfully addressed erosion from agricultural sources and lead levels declined as a result. ADEQ collected 12 samples in 2011–2012; of those, 10 samples had no detectable lead and two samples had very low lead levels that fell well below the applicable water quality criteria. Therefore, ADEQ removed the four reaches from Arkansas' 2014 CWA section 303(d) list for lead impairment.

Section 319 funds in the amount of $250,000 were used by JCCD and TNC to purchase materials for implementing BMPs. The JCCD and TNC also provided $200,400 in cash and in-kind match to purchase and install BMPs. Funds in the amount of $450,000 were used by CCCD to help purchase materials for BMPs. The CCCD also provided $450,000 in cash and in-kind match to purchase and install BMP materials.

Section 319 funds in the amount of $294,751 were used by TNC to identify, quantify and rank stream segments on the basis of the levels of sediment and nutrient load contributed to the main stem of the Cache River, its tributaries and the associated bottomland hardwood and wetlands. This data was used for future projects designed to reduce sediment inputs in the watershed through BMPs. TNC also provided $247,220 in cash and in-kind match to identify priority stream segments in the watershed and install monitoring stations.

4 NPS Pollution Management Program Milestones:

The Arkansas NPS program has funded unique, various and diverse projects prior to FY 2014. The program has managed these projects with the guidance and fiscal support of EPA since the inception of the program. Included in this report are the milestones that have been established by the ANRC NPS program staff, cooperating partners and stakeholders. In the past, the Arkansas 319(h) program has funded projects that have, in turn, leveraged the success of previous projects. In FY 2014 there were active projects that were continuations of prior projects. The following are examples of these types of projects and will serve as models as to how the 319(h) program is working to address milestones.

There were numerous projects funded by the Arkansas 319(h) program that directly addressed milestones. In FY 2014, Project 13-600 (SWAT) was a continuation of a previous project initiated. It served to identify and prioritize watersheds and sub-watersheds that are impaired or are threatened through the use of remote sensing technology. This project improved the capability for ANRC to directly address our first milestone by enhancing the risk matrix and to continue the process of identifying 12-digit hydrologic unit areas for priority watersheds for program management purposes.

Project 13-200 (Lee Creek and Frog Bayou Watershed Management Planning) was the “Phase 2” project for the city of Fort Smith, Arkansas. It was funded to assist in production of two, 9 element watershed management plans. The city of Fort Smith utilized 319(h) assistance to develop and produce these plans. NPS staff will continue to work with partners to collect monitoring data through ongoing projects and will diligently work to update the milestones within the management plan.

The following milestones are anticipated to be fully achieved by Sept. 30, 2016. The program management team will continue to use the adaptive management process to adjust objectives and to measure progress toward identified short-term milestones. Project partners supported by Clean Water Act (CWA) Section 319 grants will meet in September of each year to review progress toward project objectives and established program milestones. The Nonpoint Source (NPS) Pollution Management Program Stakeholder Group met to approve these measurable milestones that are being reported. The Arkansas Natural Resources Commission (ANRC) will review progress toward program milestones and discuss possible additions, deletions and/or revisions, as appropriate. This process will be repeated annually.

ANRC and the U.S. Environmental Protection Agency (EPA) recognize the achievement of goals and milestones are subject to potential changes in national funding levels, in addition to environmental and weather related factors, the national economic climate, and other variables beyond the control of the state. EPA and the state must also recognize that changes to the goals and milestones can be influenced by revisions to national EPA guidance. Subsequently, Arkansas may choose to re-evaluate and update applicable goals and milestones to adjust for such changing factors. This adaptive management approach will enable the state to make appropriate modifications to the Management Program to continue to attain satisfactory progress.

Milestones for the NPS Pollution Management Program for FY 2014

1. Continue the process of identifying 12-digit hydrologic unit areas for priority watersheds for program management purposes. This will occur in concert with a thorough analysis of the modeling assumptions and metrics and be accompanied by significant validation efforts. The qualitative risk assessment matrix will be updated every other year or six months after ADEQ releases the impaired waters list. Priority watersheds will be evaluated and updated every two years after the qualitative risk assessment matrix is updated.

13-600- Continued Development of a Comprehensive Watershed Model for 12-digit HUCs in selected Priority Watersheds in Arkansas- Phase III. This project has served to calibrate and validate the Soil and Water Assessment Tool (SWAT) model at locations with available flow and water quality data so that sub watersheds within the 8-digit HUCs of Cache River, and Lower Ouachita-Smackover watershed are assessed and ranked based on their contribution to nonpoint source (NPS) pollution. Water quality will be monitored and the required data entered into the WQX or STORET database. A qualitative comparison of one year of monitoring data with the model output at the 12-digit HUC level is being performed. The impact of land use change on water quality is being modeled for Cache river watershed to predict long term impact of Biomass Crop Assistance Program (BCAP). This project began in July of 2013 and will end in June of 2015

13-700- StreBanD- This project serves as a continuation to develop a cloud based, interactive and user-friendly web interface for the StreBanD tool. This tool has been developed to assist in delineating streambanks utilizing remote sensing technology and for ease of use and adoption by interested agencies and conservation planners. The tool is continuing to undergo testing and refinement to ensure user friendliness.

2. Continue to conduct strategic baseline monitoring in selected high priority 12-digit hydrologic unit areas within matrix-identified priority watersheds. ANRC anticipates 3-4 priority watersheds will have baseline monitoring over the life of the plan.

11-500- Water Quality Monitoring in the Upper Illinois River Watershed and Upper White River Basin- This project is a continuation to the baseline monitoring of two of the priority watersheds and will go through September 30, 2015. The accomplishments that have been made for FY 2014 are as follows: Financial review for year two of the project was completed, 33 discharge measurements were taken at Sager Creek, 45-56 samples were collected at each of the 19 sites in the UIRW and UWRB and were also analyzed, around 9 samples were collected at each of the 29 sites in the UIRW and analyzed for pathogens and datasondes have been deployed to measure dissolved oxygen levels at two locations in the UWRB.

11-600- Water Quality Monitoring for the Lake Conway Point Remove Watershed- This project contributes to the baseline monitoring of one of the priority watersheds. It will conclude in Oct. 14 but began in July 2011. The accomplishments that have been made for FY 2014 are as follows: Monitoring

equipment has been tested, calibrated, and maintained, 586 samples have been collected including grab and routine samples, the streams' profile has been surveyed at 7 sites, velocity measurements have been measured at 7 sites and 586 samples have been analyzed and prepared.

12-800- Water Quality Monitoring for the L'Anguille Watershed- This project also contributes to this milestone and is monitoring the L'Anguille Watershed thru September 30, 2015. The accomplishments that have been made for FY 2014 are as follows: monitoring equipment has been installed and maintained, 277 grab samples and 97 routine samples have been collected, in-situ data has been collected at each monitoring station, 374 samples have been analyzed and data had been entered and validated into the WQX database.

13-400- Water Quality Monitoring for the Bayou Bartholomew Watershed (Deep Bayou) -This project is a more focused monitoring for the NWQI but still is collecting data within a priority watershed in the upper portion of the Bayou Bartholomew Watershed. It is scheduled to conclude September 30, 2017. The accomplishments that have been made for FY 2014 are as follows: A QAPP was developed and approved by EPA, 516 grab samples and 106 routine samples have been collected from 10 monitoring locations, in-situ data has been recorded at each monitoring station, 568 samples have been analyzed, the streams' profile has been surveyed at 5 locations and velocity measurements have been taken at 5 locations.

11-1600- Cache River Monitoring- This project is trying to ascertain the effectiveness of BMP's implemented by MRBI partners in the upper Cache River watershed thru in stream water quality monitoring at the outflow of selected 12 digit HUCs. This monitoring began in the late summer of 2011 and is scheduled to continue through 2014. 1,092 samples have been collected and analyzed so far with 406 samples being collected during FY 2013.

13-500- Middle Cache River Monitoring- This project is trying to ascertain the effectiveness of BMP's implemented by MRBI partners in the middle Cache River watershed thru in stream water quality monitoring at the outflow of selected 12 digit HUCs. This monitoring began in the summer of 2013 and is scheduled to continue through June 2016. 328 samples have been collected and analyzed so far with all those being collected during FY 2013.

3. Continue to employ a formal annual review process of select NPS projects funded with CWA 319 grants aimed at improving project effectiveness. The formal review results will be reported annually in the NPS annual report.

The NPS Stakeholder Meeting took place Sept. 17, 2014 at the Cooperative Extension Service in Little Rock. Seventy-five people registered for the meeting and 73 attended. Dr. Dharmendara Saraswat presented on the addition of threatened and endangered species to the risk matrix. He provided an overview of the Endangered Species workgroup's effort to put together an evaluation tool of how to

include threatened and endangered species in the priority watershed matrix. The majority of stakeholders agreed that threatened and endangered species should be in the matrix. Additional information and data will continued to be incorporate as it become available. Stakeholders were further invited to be participate in future meetings of the workgroup.

The NPS Project Review Meeting took place Sept. 18, 2014. Eighty people registered for the Project Review Meeting with 71 attending. The following are the projects that were presented and discussed.

Project Number	Project Name	Project Type
11-500	Illinois and Upper White River WQ monitoring	Monitoring
11-600 & 12-800	Lake Conway-Point Remove and L'Anguille River WQ monitoring	Monitoring
11-1600	Cache River WQ monitoring	Monitoring
11-1800	Larkin Creek – Phase II WQ monitoring	Monitoring
11-800	SWAT Model WQ Monitoring for calibration and verification	Monitoring
09-1600	West Fork Stream Rest. @ Airport- Phase II	Stream restoration
09-1900	White River Streambank Restoration	Stream restoration
11-900	SWAT Modeling (Saline, Poteau, and Strawberry)	Modeling
12-500	AR Captains and Corporals	Outreach and education
11-1900	L'Anguille River - Conservation Tillage	Implementation comparison demonstration
12-600	Main St. Little Rock Demo and Education	Urban LID demonstration
12-700	Little Palarm Creek WMP and LID Plan for Lake Conway	Urban LID demonstration and WMP development
11-300 & 11-400	BWD & IRWP Rain Gardens	Urban LID demonstration
09-2400	Upper Sager Creek runoff natural treatment	Urban/suburban LID implementation and demonstration
12-200	Boone County Conservation District- Bull Shoals	BMP demonstration and implementation
12-300	Cross County Conservation District – L'Anguille River	BMP demonstration and implementation
12-400	St. Francis County Conservation District – L'Anguille River	BMP demonstration and implementation

TABLE 1

4. As resources allow, continue cooperation with the Arkansas State Plant Board and the Abandoned Pesticide Program in the collection of data associated with the environmental risk reductions related to farmer participation in abandoned pesticide collection. Any developments in this area will be reported annually in the NPS annual report.

Since 2005, the program has been conducted in all 75 counties in the state, successfully recovering over 1.7 million pounds of unwanted agriculture pesticides. In FY 2014, NPS staff participated in quarterly

meetings of the Abandoned Pesticide Collection Advisory Committee, giving input as to where and when collection events should be held. Nine different collection events garnered nearly 400,000 pounds of pesticides in the last year.

5. Continue to produce and submit the NPS annual report by the end of January each year.

The 2013 Arkansas Annual Report was submitted January 16, 2014 to EPA Region VI. ANRC received correspondence dated February 27, 2014 from the Region related to receipt, review, acceptance and suggestions to the report. No further action was required.

6. Continue to report load reductions (sediment and nutrients) and BMPs in the Grants Reporting and Tracking System (GRTS) database each year. These results will be included in the NPS Annual Report.

Load reductions and BMPs are entered into the GRTS database every quarter for cost share demonstration projects and they are entered in at the conclusion of all other applicable projects when final reports are submitted. As you see in Table 2, load reductions are reported to ANRC then entered into the GRTS system and compiled for FY 2014 using this system to form the table listed below. This table depicts active projects that had a quantifiable load reduction during the period of FY 2014.

FY 2014 ACTIVE PROJECT LOAD REDUCTIONS

	Nitrogen Reduced (lbs./year)		Phosphorus Reduced (lbs./year)		Sediment Reduced (tons/year)	
Project #	**FY 14**	**Project Life**	**FY 14**	**Project Life**	**FY 14**	**Project Life**
09-1600	5,275	5,275	1,817	1,817	4,072	4,072
09-1900	2,170	2,170	1,080	1,080	3,240	3,240
09-2100	1,487	3,262	744	1,632	717	1,577
09-2200	445	972	223	485	285	622
09-2500	69	621	34	310	45	397
10-600	0	237	0	118	0	127
11-300	34	34	6.1	6.1	955	955
11-400	34	34	6.1	6.1	955	955
11-1000	1,340	5,080	670	2,539	647	2,472
11-1100	3,177	12,158	1,587	6,075	1,954	7,541
11-1200	82	5,504	42	2,751	48	2,953
11-1300	0	1,944	0	971	0	1,195
11-1400	0	1,021	0	510	0	658
11-2100	150	150	75	75	80	80
12-200	0	243	0	121	0	167
12-400	60	120	57	114	115	230
13-900	42	42	21	21	20	20
Total	14,365 POUNDS	38,867 POUNDS	6,362 POUNDS	18,631 POUNDS	13,133 TONS	27,261 TONS

TABLE 2

09-1600- West Fork Stream Restoration at Fayetteville Airport: Phase II Restoration Implementation. The goal of the project is to implement a river restoration design developed through an ongoing project "West Fork Stream Restoration at Fayetteville Airport: Phase I Reach Restoration Plan Development." The implemented restoration design will restore an unstable section of the West Fork White River (WFWR) that runs through the City of Fayetteville Municipal Airport property to reduce sediment loads from banks, improve water quality, and enhance aquatic and terrestrial habitat. The project has been completed and 3,800 feet of stream bank has been restored. Project partners utilized additional funds to restore another 2,400 feet of stream bank at this site to make a total of 6,200 feet restored.

09-2000- Mullins creek project was to develop and implement a stream restoration plan for a section of Mullins creek. The unstable stream section is located on the campus of the University of Arkansas and its restoration is helping to reduce sediment and nutrient loads that ultimately are received by the West Fork White River (WFWR) and Beaver Lake. The project provided a highly visible location to provide educational opportunities. The completed restoration showed improvement of water quality and enhanced aquatic and terrestrial habitat.

13-1100- White River Bank Restoration- This project is to reduce erosion along a minimum of 1,250 feet of riverbank including approximately 750 feet of bank reconstruction using toe-wood techniques on the White River near the City of Fayetteville waste water treatment plant. The project will reduce sediment and phosphorus loads from eroding riverbanks, improve water quality, and enhance aquatic and terrestrial habitat.

11-1000- Strawberry River Improvement Project- This project with the Sharp County Conservation District addressed impairment (sedimentation) of the Strawberry River. The project offered eligible landowners technical and financial assistance to implement BMPs on their property. The project was very popular and successful with landowners, which spawned an additional project in the watershed (09-2100) to supplement the first project. Both projects ended June 30, 2014. Load reductions for these projects have been calculated and entered into the GRTS database.

11-1100 Strawberry River Sub Watershed Improvement Project- This project with the Izard County Conservation District addressed impairment (sedimentation) of the Strawberry River. The project offered eligible landowners technical and financial assistance to implement BMPs on their property. This project ended on June 30, 2014 and load reductions for the project have been entered into the GRTS database.

12-200- Boone County/ Bull Shoals Watershed Project- This project with the Boone County Conservation District is addressing needs and preserve water quality in the Bull Shoals watershed. The project offers eligible landowners technical and financial assistance to implement BMPs on their property. This project started in June 2012 and will continue thru June 2015. Load reductions for the project have been calculated and entered into the GRTS database.

13-900- Poplar Creek Watershed Improvement- This project with the Greene County Conservation District sought to address impairment (sedimentation) of a tributary of the Cache River called Poplar Creek. The project offers eligible landowners technical and financial assistance to implement BMPs on their property. This project started in June 2013 and will continue thru June 2016. Load reductions for the project have been calculated and entered into the GRTS database.

11-1200 South Fork of the Spring River Sub-Watershed project in cooperation with the Fulton County Conservation District took a proactive approach in helping to prevent sediment from entering the Spring River. This project offered landowners technical and financial assistance for BMP implementation. Results for this project include approximately 55,923 tons of sediment reduced and livestock excluded from 5.4 miles of stream. This project was completed June 2014.

11-1300 Lower Norfork Dam Watershed Project in cooperation with the Baxter County Conservation District took a proactive approach in helping prevent sediment from entering the Upper White River Watershed. This project offered landowners technical and financial assistance for BMP implementation which resulted in approximately 51,579 tons of sediment being reduced and approximately 8 miles of stream being fenced to prevent cattle from entering. This project was so successful with landowners that an additional $89,500 (project 09-2200) was provided to supplement implementation on the ground. This project was completed June 2014.

11-1400 Crooked Creek Watershed Project in cooperation with the Crooked Creed Conservation District took a proactive approach in helping prevent sediment from entering the Crooked Creek Watershed. This project offered landowners technical and financial assistance for BMP implementation which resulted in approximately 197,652 tons of sediment being reduced and approximately 4 miles of stream being fenced to prevent cattle from entering. This project was so successful with landowners that an additional $125,000 (project 09-2300 & 09-2500) was provided to supplement the implementation on the ground. This project was completed June 2014.

12-400- Lower L'Anguille River Watershed Cost-Share Project Phase IV- St. Francis County Conservation District has assisted 35 applicants in helping water quality in the Lower L'Anguille River Watershed. BMPs implemented include: Cover Crops, Structure for water control, Irrigation Water Conveyance and Drop Pipes.

12-300- L'Anguille River Watershed Water Quality Project in cooperation with the Cross County Conservation District has assisted 16 applicants in helping water quality in the watershed. BMPs implemented include: Structure for water control, Irrigation Pipeline, Cover Crop, Tree/Shrub Establishment and No-Till/Strip Till planting.

7. Continue to partner and assist the Natural Resources Conservation Service (NRCS) in the review, selection or development of National Water Quality Initiative (NWQI), Mississippi River Basin Initiative (MRBI), Regional Conservation Partnership Program (RCPP), Environmental Quality Incentive Program (EQIP) or other programs that will improve or enhance water quality in watersheds on an annual basis. ANRC will also participate in the State Technical Committee annually or as it convenes. A summary of meetings attended, programs reviewed or participation will be reported annually. Additionally ANRC will monitor (in-stream WQ monitoring) a minimum of 2 NWQI 12 digit watersheds and 2 MRBI 12 digit watersheds yearly through the life of this plan. Monitoring results will be assessed and reported in the NPS Annual Report as they become available.

February 2014 attended and participated in the State Technical Committee (STC) meeting. The focus of the meeting was EQIP funding allocation by County and the possibility of RCPP being initiated. The RCPP is a national version of the MRBI program.

In July 2014 ANRC's NPS staff assisted Arkansas, Craighead, Jackson, Little River County Conservation Districts, the Beaver Water Alliance and the Illinois River Watershed Partnership develop RCPP pre proposals for submission.

ANRC has several projects addressing the monitoring aspect of this milestone. There are monitoring projects in the Bayou Bartholomew (NWQI), Lake Conway Point Remove (MRBI), L'Anguille River (MRBI), Cache River (MRBI), and Little River Ditches (MRBI) watersheds. The projects below have made accomplishments for FY 2014:

13-400-Water Quality Monitoring for the Bayou Bartholomew Watershed (Deep Bayou) - This project contains focused monitoring for the NWQI. It is scheduled to conclude September 30, 2017. There have been 516 grab samples and 106 routine samples collected from 10 monitoring locations and 568 samples have been analyzed. From a preliminary assessment that was performed in September 2014, Equilibrium determined the Cousart Bayou to be an area of concern in regards to loading. This project is only 25% complete and more data may show more precise calculations in the future. However, substantial loadings are occurring throughout all portions of the watershed and continued efforts need to be made to address nonpoint source pollution, so that water quality doesn't keep degrading.

11-600-Water Quality Monitoring for the Lake Conway Point Remove Watershed- This project contributes to the baseline monitoring of one of the priority watersheds and also provides data for a MRBI Watershed. There have been several accomplishments made for FY 2014 including 586 samples being collected and analyzed. The Lake Conway Point Remove watershed was selected as a MRBI watershed and this monitoring assisted in determining the effectiveness of BMPs. Results from this project show that loadings tended to decrease from year 1 to year 3 of the project. However, discharge was almost double in year 1 compared to year three, so increased flows showed an increase in loadings. Also the more downstream sites that were monitored typically had higher constituent loadings due to an increase in discharge.

12-800-Water Quality Monitoring for the L'Anguille Watershed- This project is monitoring the L'Anguille Watershed, which is an MRBI watershed. The accomplishments that have been made for FY 2014 include 277 grab and 97 routine samples being collected and 374 samples having been analyzed. This watershed tends to show and experience high amounts of sediment deposition especially during certain times of the

year. Trend analysis will be determined at the end of the project when all of the data has been accumulated.

11-1600-Cache River Monitoring- This project is trying to ascertain the effectiveness of BMPs implemented by MRBI partners in the upper Cache River watershed thru in stream water quality monitoring at the outflow of selected 12 digit HUCs. This monitoring began in the late summer of 2011 and is scheduled to continue through 2014. There have been 1,092 samples collected and analyzed so far with 406 samples being collected during FY 2014.

13-500- Middle Cache River Monitoring- This project is trying to ascertain the effectiveness of BMPs implemented by MRBI partners in the middle Cache River watershed thru in stream water quality monitoring at the outflow of selected 12 digit HUCs. This monitoring began in the summer of 2013 and is scheduled to continue through June 2016. There have been 328 samples collected and analyzed so far with all those being collected during FY 2014.

11-2000S- Little River Ditches Monitoring- This project ascertained the effectiveness of BMPs implemented by MRBI partners in the watershed through water quality monitoring at the field level. The project was completed at the end of June 2014. The project was successful in showing declining levels of sedimentation and nutrient loading at the field level.

8. Continue to evaluate and support in-stream water quality monitoring to assess the effectiveness of implemented 319(h) grant-funded projects, and report monitoring data to ADEQ annually or as appropriate.

ANRC 319 data for baseline monitoring is sent to ADEQ annually. Usually the data is sent October 1 of every year but can be sent at other times during the year. Data from baseline monitoring projects 11-500, 11-600, 12-800 and 13-400 have been submitted to ADEQ during FY 2014.

11-1800- Larkin Creek Monitoring- Phase II - This project is trying to ascertain the effectiveness of BMP implementation of project FY08-800 on Lateral 1-A of Larkin Creek. It is a continuation of monitoring that began with project FY06-1800 that took place in 2010. This (phase II) monitoring began in the fall of 2011 and is scheduled to continue through 2014. There have been 445 samples collected and analyzed so far with 177 samples being collected during FY 2014

9. Review ADEQ's 305(b) report and subsequent 303(d) list approved by EPA for delisted streams or stream segments and determine area activities implemented during the period prior to delisting as a result of NPS load reductions. Review of the 303(d) list will occur every two years and draft success stories will be developed for delisted segments as appropriate. The goal is to develop two to three success stories within the time frame of this management plan.

Reviewed the draft 2014 stream segment de-listings and had EPA to vet the list. From the vetted list 2 Success Stories encompassing 6 segments developed. The Success stories were developed for 4 segments of Bayou DeView and 2 segment of the St. Francis River

10. Develop and implement the Arkansas Watershed Stewardship training program, which will provide watershed education to help residents participate in programs designed to address water quality issues. Program facilitators will train 300 people each year. The AWS training program will occur 8 times in 2014 in 8 priority watersheds with a total of 300 people each year being educated in water quality restoration practices.

Project 12-500- "Arkansas Captains and Corporals" (aka Arkansas Watershed Stewardship). The project was modeled after the Texas Watershed Stewardship Program and adapted to fit Arkansas. The overall goal was to develop a watershed educational program that would empower watershed stakeholders to develop and promote watershed stewardship. A second goal was to assemble stakeholders and promote the ideal of developing a watershed management plan meeting all of the required EPA 9 elements.

The program focused on the NPS priority watersheds as identified by use of a risk matrix. Those priority watersheds included: Bayou Bartholomew, Lake Conway Point Remove, Strawberry, L'Anguille, Cache, Poteau and the Lower Ouachita-Smackover. In 2014 nine meetings were held. Eight of the meetings were in priority watersheds with an average attendance of 22 people per meeting. Additional meetings were held at a Floodplain Management Training and the Central Arkansas Master Naturalist conference.

To date, 192 people at ten individual meetings were trained. Meetings have also been scheduled for the Arkansas Department of Environmental Quality in November 2014 and for the Arkansas Association of Conservation Districts annual meeting occurring in January 2015.

11. Work with partners or other stakeholders to initiate or to have two to three watershed management plans accepted as meeting EPA's nine key elements within the time frame of this NPS Management Plan. Progress on working with watershed groups and/or submittal or acceptance of watershed plans could also be reported on an annual basis in the NPS annual report.

There has been discussion with Baxter, Fulton, and Marion counties regarding the possible project initiation to develop watershed management plans.

ANRC is currently using state funds facilitating contracts with entities, partners and conservation districts in the Strawberry (11010012), Cache (08020302) and Lower Little River (11140109) watersheds to develop acceptable EPA 9-element plans.

13-200- Lee Creek and Frog Bayou Watershed Management Planning – Phase II. The goal was to update and revise the draft watershed management plan (WMP) for the Lee Creek and Frog Bayou watersheds. A draft WMP was completed in June 2012 as Phase I of this project. Phase II of the project provided a more accurate assessment of loading and a final WMP that is based on EPA's 9 minimum

elements and practical to implement. This project began in July of 2013 and will be completed in December of 2014

12-700- Initiation of Watershed Management Plan (WMP) for Little Palarm Creek Sub-Watershed and Low Impact Development Plan for Lake Conway Urban Watershed

A draft of the WMP has been initiated for Little Palarm Creek Sub-Watershed. Reports and literature review on the water quality issues of this watershed have been initiated. Mapping data has been collected and assessed for usability from the City of Conway and other sources. A geotechnical (soils) report has been received and reviewed. Meetings focused on watershed advocacy group formation, governance and structure has begun.

12. Work with partners or other stakeholders to initiate Low Impact Development (LID) projects within priority watersheds.

11-300- Rain Gardens implementation for Beaver Lake met its goals. The primary goal was to reduce non-point source sediment and nutrient loads into the West Fork White River and the White River. The project implemented 30 demonstration rain gardens in the Beaver lake watershed. Further reductions will be achieved through the second goal of institutionalizing rain gardens as a water quality Best Management Practice (BMP) for voluntary implementation by individuals and organizations in Northwest Arkansas. This project was successfully completed in 2014 and the average load reductions can be found in table 2.

11-400- IRWP Rain Gardens primary project objective was to reduce sediment and nutrient loads into the West Fork White River and the White River. 30 demonstration rain gardens were implemented in highly visible public and quasi-public (i.e. municipal, school, church) locations within the Illinois River watershed. Using public to quasi-public locations for the implementation the project help institutionalize the idea of rain gardens as a BMP that citizens and organizations can adopt. The secondary objective was reached by training 150 people on how to design, implement and maintain a rain garden (this is a total of 300 people trained across the Illinois River and Beaver Lake watersheds). This training took place in a number of “Rain Garden Academies”. Additional technology transfer took place through the distribution of rain garden fact sheets at various events across the watersheds. There was a total of six Rain Garden Academies. Three academies were financed and sponsored by the Illinois River Watershed Partnership and three by Beaver Water District. This project was successfully completed in 2014 and the average load reductions can be found in table 2.

13-300- IRWP Greenway demonstrated the benefits of rain gardens and other LID practices. The IRWP installed Low Impact Development (LID) demonstration projects and used clean water initiatives such as porous pavers, tree wells, rain gardens and phosphorous removal structures such as vegetated swales, riparian buffers with native grasses and trees to improve water quality. As the infrastructure was installed, the IRWP educated and involved the community on the key educational water quality improvement and best management practice aspects.

09-2400- Upper Sager Creek Regional Treatment- The goal was to construct a regional treatment feature in upper Sager Creek that would reduce peak flow and sediment and nutrient transport in the stream system during storm flow events. The project resulted in a system level reduction in sediment and nutrient loading and provided channel protection resulting from the decrease in peak flows. This project began in April 2013 and was completed in March of 2014.

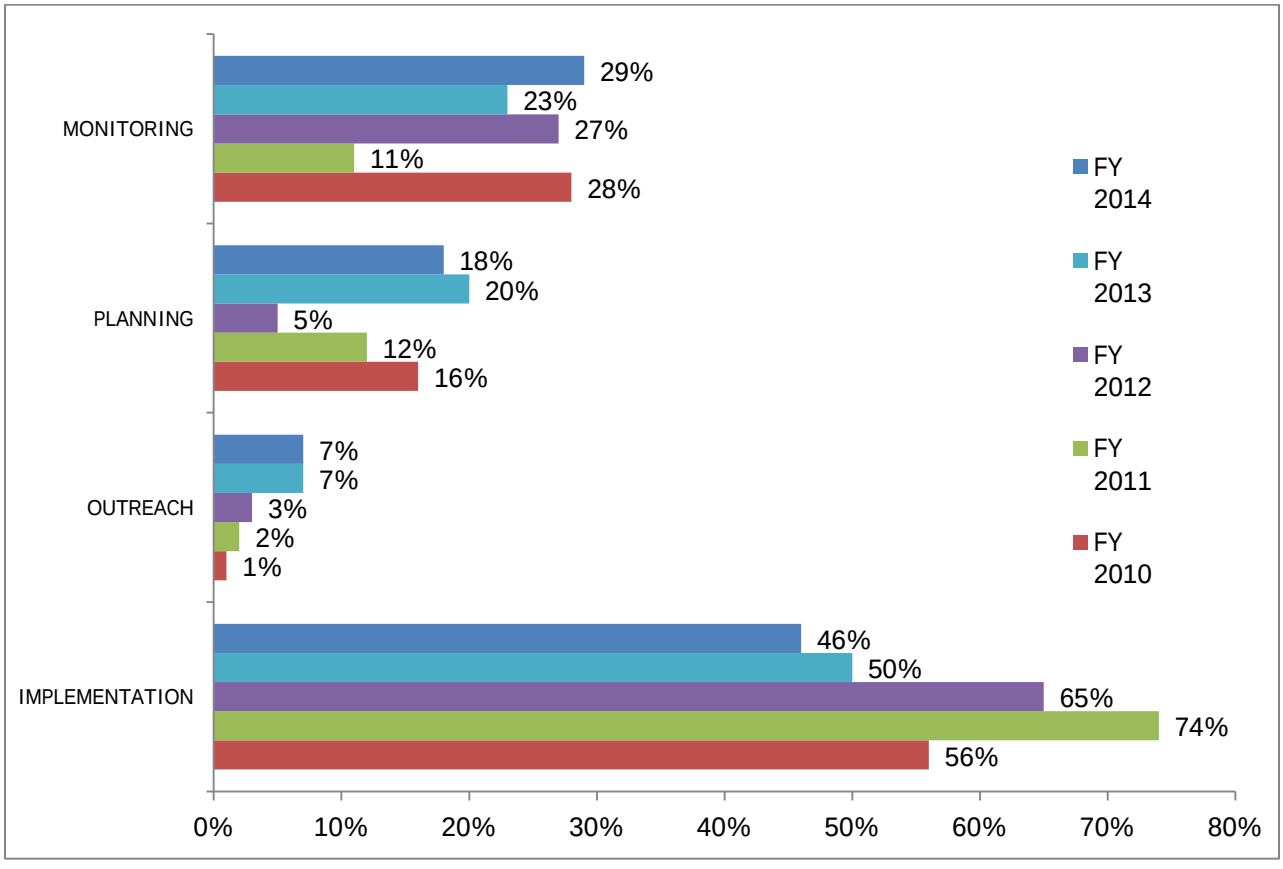
5 FEDERAL RESOURCE ALLOCATION:

Program Expenditures:

The Arkansas Nonpoint Source Program allocates most of its Clean Water Act 319(h) funds to its partners who plan to implement projects in priority watersheds that best meet the goals and milestones of the Program. These partners must be capable of carrying out projects and are typically required to provide a minimum of 43% match in non-federal funds. In FY 2014, ANRC and its project partners spent approximately $1.8 in federal funds to address water quality resource concerns and to reduce or prevent nonpoint source pollution.

The chart below shows how federal funds disbursed for projects were allocated among monitoring, planning, outreach, and implementation projects. Monitoring expenditures increased 6% of federal expenditures from FY 2013 to FY 2014. Planning expenditures decreased 2% while outreach expenditures stayed the same. Implementation expenditures decreased 4% in FY 2014.

Program Expenditures for FY 2014:



FY 2014 Non-point Source Program (Program) Accomplishments

- **Success Stories**- Four reaches of Bayou DeView and two reaches of the St. Francis River were removed from Arkansas' 303(d) list. This is an accomplishment that can attributed to the dedication and hard work of all of our partners, especially EPA, NRCS, CCCD, PCCD, JCCD, TNC and ADEQ. These successes would not be possible without the dedication and commitment of all staff involved and funding provided by EPA.

- **Watershed Management Plans**-Two 9 element Watershed Management Plans were initiated in FY 2014. The plans are scheduled to be completed, reviewed and submitted to EPA in early 2015. The Arkansas NPS staff will continue to provide assistance to stakeholders for initiation and completion of Watershed Management Plans.

- **Enhancing Partnerships** –ANRC, EPA, NRCS, CCCD, PCCD, JCCD, TNC and ADEQ have further strengthened partnerships with one another through initiatives and programs that share a mutual goal of reducing non-point source pollution. The continuation of strengthening partnerships with partners and other entities will be a primary goal of the Program in subsequent years

- **State Funds Utilized for 319(h) Activities**- For the first time, non-federal state funds were allocated to the Program for project development and implementation.

- **Update of the Arkansas State Waterplan** - ANRC has completed the development stage of the update to the State Water Plan. The State Water Plan is the mechanism that enables the existence of the NPS Program.

- **GRTS Reporting**- Load reductions directly related to 319(h) funded projects have been accomplished. The Program has exhibited load reductions in various watersheds due to practices implemented through funding. Total load reductions in FY 2014 were 13,133 tons for Sediment, 14,365 pounds for Nitrogen and 6,362 pounds for Phosphorous and were entered into the GRTS database.

APPENDICES

Appendix 1-Best Management Practices Implemented in FY 2014

The below table contains BMPs that have been implemented during FY 2014 and the quantity of each BMP according to active projects during FY 2014.

11-1000

Nutrient Management	1,486.1 Acres
Fence	685 Feet
Brush Management	129.8 Acres
Pest Management	12.5 Acres
Pond	1 Each
Prescribed Grazing	2,725.5 Acres
Watering Facility	1 Each

11-1100

Brush Management	91.7 Acres
Fence	17,204 feet
Forage and Biomass Planting	285 Acres
Heavy Use Area	8 Each
Herbaceous Weed Control	336 Acres
Integrated Pest Management	989 Acres
Nutrient Management	1,024 Acres
Pipeline	5,870 feet
Prescribed Grazing	1,564 Acres
Pumping Plant	1 Each
Water Well	2 Each
Watering Facility	1 Each

11-1200

Brush Management	65.3 Acres
Critical Area Planting	8 Acres
Fence	10,952.1 feet
Heavy Use Area	4 Each
Pasture Planting	55 Acres
Pest Management	17.45 Acres
Pipeline	2,976.3 feet
Pond	1 Each
Watering Facility	6 Each

11-1300

Forage and Biomass Planting	139 Acres
Brush Management	345 Acres
Fencing	1,360 feet
Heavy Use Area	2 Each
Pipeline	960 feet
Watering Facility	3 Each

11-1400

Fencing	7,680 feet
Forage and Bio Mass Planting	64.06 Acres
Pipeline	1,150 feet
Water Facility	5 Each

12-200

Fence	1,493 feet
Pipeline	500 feet
Pond	1 Each
Heavy Use Area	1 Each
Watering Facility	1 Each

12-300

Irrigation Pipeline	654.6 feet
Structure for Water Control	473.9 feet

12-400

Cover Crop	272 Acres
Drop Pipe	270 feet
Irrigation Water Conveyance	2,948 feet

Total of All BMPS

Brush Management	631.8 Acres
Cover Crop	272 Acres
Critical Area Plantings	8 Each
Fencing	39,374.1 feet
Forage and Biomass Planting	488.06 Acres
Heavy Use Area	15 Each
Herbaceous Weed Control	336 Acres
Integrated Pest Management	989 Acres
Irrigation Water Conveyance	3,602.6 feet
Nutrient Management	2,410.1 Acres
Pasture Planting	55 Acres
Pest Management	29.95 Acres
Pipeline	11,456.3 feet
Pond	3 Each
Prescribed Grazing	4,289.5 Acres
Pumping Plant	1 Each
Structure for Water Control	743.9 feet
Water Well	2 Each
Watering Facility	17 Each

Appendix 2-Stream Segments Removed from the List of Impaired Waterbodies in FY 2014

The below table contains segments of impaired waterbodies that have exhibited new data that indicates attainment of standards during FY 2014.

STREAM NAME	HUC	RCH	PLNG SEG	MILES	MONITORING STATIONS	Designated Use Not Supported						Water Quality Standard Non-Attainment											SOURC						Justification
						FC	FS	P	SC	DW	AI	DO	pH	Tm	T	Cl	SO	TD	PA	C	Pb	Zn	Othe	IP	MP	SE	AG	UR	Other	
Dorcheat Bayou	11140203	-026	1A	11.7	UWBDT02		x						x								x								UN	TMDL Completed
Beech Creek	11140203	-025	1A	15.7	UWBCH01		x					x			x						x								UN	TMDL Completed
Dorcheat Bayou	11140203	-024	1A	7.0	RED0065								x																UN	TMDL Completed
Big Creek	11140203	-923	1A	18.5	UWBIG01		x						x								x			x						TMDL Completed
Big Creek	11140203	-023	1A	3.3	UWBIG02		x				x					x	x	x			x			x						TMDL Completed
Dorcheat Bayou	11140203	-022	1A	8.4	RED0015A								x				x				x								UN	TMDL Completed
Horsehead Creek	11140203	-021	1A	16.8	UWHHC01		x						x								x								UN	TMDL Completed
Dorcheat Bayou	11140203	-020	1A	11.9	e								x				x				x								UN	TMDL Completed
Little Bodcau Creek	11140205	-010	1A	19.5	RED0056		x														x								UN	TMDL Completed
Bodcau Creek	11140203	-007	1A	7.8	RED0057		x														x								UN	TMDL Completed
Bodcau Creek	11140205	-006	1A	22.4	RED0027		x						x		x						x								UN	TMDL Completed
Bodcau Creek	11140205	-002	1A	6.0	e		x						x		x						x								UN	TMDL Completed
Red River	11140106	-025	1B	8.0	e						x					x	x	x											UN	TMDL Completed
Red River	11140106	-005	1B	25.3	RED0025						x					x	x	x											UN	TMDL Completed
Red River	11140106	-003	1B	9.8	e						x					x	x	x											UN	TMDL Completed
Red River	11140106	-001	1B	34.8	e						x					x	x	x											UN	TMDL Completed
McKinney Bayou	11140201	-014	1B	21.6	RED0055						x						x	x											UN	TMDL Completed
McKinney Bayou	11140201	-012	1B	23.1	RED0054						x					x	x	x											UN	TMDL Completed
Red River	11140201	-011	1B	15.2	RED0046						x							x								x			UN	TMDL Completed
Red River	11140201	-007	1B	40.1	RED0045						x							x								x			UN	TMDL Completed
Red River	11140201	-005	1B	12.0	e						x							x								x			UN	TMDL Completed
Red River	11140201	-004	1B	4.0	e						x							x								x			UN	TMDL Completed
Red River	11140201	-003	1B	15.5	RED0009						x				x			x								x			UN	TMDL Completed
Sulphur River	11140302	-008	1B	7.2	e		x							x	x		x	x								x			UN	TMDL Completed
Sulphur River	11140302	-006	1B	6.5	RED0005		x							x	x		x	x								x			UN	TMDL Completed
Sulphur River	11140302	-004	1B	0.7	e		x							x	x		x	x								x			UN	TMDL Completed
Sulphur River	11140302	-001	1B	6.3	e		x							x	x		x	x								x			UN	TMDL Completed
Sulphur River	11140302	-002	1B	8.5	e		x							x	x		x	x								x			UN	TMDL Completed
Saline River	11140109	-014	1C	25.1	RED0032		x					x																	UN	New data indicates attainment
Mine Creek	11140109	-933	1C	1.3	RED0048B												x							x						New data indicates attainment
Bear Creek	11140109	-025	1C	17.3	RED0033																		NO3	x	x					New data indicates attainment
Beouf River	8050001	-019	2A	58.1	UWBFR01												x												UN	TMDL Completed
Saline River	8040203	-010	2C	29.8	OUA0026,41													x								x			UN	New data indicates attainment
Hurricane Creek	8040203	-004	2C	19.5	OUA0116													x											RE	New data indicates attainment
Saline River	8040204	-006	2C	17.5	OUA0118													x											UN	New data indicates attainment
Flat Creek	8040201	-706	2D	16.0	OUA0137C		x						x												x					New data indicates attainment
Elcc Tributary	8040201	-606	2D	8.5	OUA0137A+		x						x																	New data indicates attainment
Moro Creek	8040201	-001	2D	12.0	OUA0028		x													x									UN	New data indicates attainment
Walker Branch	8040206	-916	2E	3.0	e		x								x		x					x							RE	New data indicates attainment (Tb, Zn); TMDL Completed (SO4)
Little Cornie Bayou	8040206	-816	2E	3.0	e		x								x		x					x							RE	New data indicates attainment (Tb, Zn); TMDL Completed (SO4)

Little Cornie Bayou	8040206	-716	2E	5.0	e		x								x		x					x							RE	New data indicates attainment (Tb, Zn); TMDL Completed (SO4)
Little Cornie Creek	8040206	-016	2E	18.0	e		x								x		x					x							RE	New data indicates attainment (Tb, Zn); TMDL Completed (SO4)
Big Cornie Creek	8040206	-015	2E	15.0	OUA0002		x								x		x					x							RE	New data indicates attainment (Tb, Zn); TMDL Completed (SO4)
Cove Creek	8040102	-970	2F	7.8	OUA0100 OUA0159		x			x	x		x					x							x					RE	New data indicates attainment
Caddo River	8040102	-016	2F	13.5	OUA0023		x								x															RE	New data indicates attainment
D.C. Creek	8040102	-923	2F	5.0	OUA0044T																	x								RE	New data indicates attainment
L. Missouri River	8040103	-008	2G	19.6	OUA0035		x								x															UN	New data indicates attainment
Bayou Meto	8020402	-007	3B	44.8	ARK0050		x					x																			New data indicates attainment
Fourche LaFave R.	11110206	-008	3E	25.7	UWFLR01								x																	UN	New data indicates attainment
Arkansas River	11110203	-932	3F	2.0	Special study/ARK0032							x																		HP	New data indicates attainment
Dutch Creek	11110204	-015	3G	28.9	ARK0057		x					x																		UN	New data indicates attainment
Illinois River	11110103	-024	3J	2.5	ARK0040			x							x												x	x			New data indicates attainment
Cache River	8020302	-028	4B	5.9	UWCHR04		x											x			x							x			New data indicates attainment
Cache River Ditch	8020302	-032	4B	11.4	e		x											x			x							x			New data indicates attainment
Cache River	8020302	-031	4B	3.4	e		x											x			x							x			New data indicates attainment
Cache River	8020302	-029	4B	3.9	e		x											x			x							x			New data indicates attainment
Cache River	8020302	-027	4B	3.9	e		x											x			x							x			New data indicates attainment
Bayou DeView	8020302	-007	4B	18.2	e		x														x							x			New data indicates attainment
Bayou DeView	8020302	-006	4B	10.2	e		x														x							x			New data indicates attainment
Bayou DeView	8020302	-005	4B	8.6	e		x														x							x			New data indicates attainment
Bayou DeView	8020302	-004	4B	21.2	UWBDV02		x														x							x			New data indicates attainment
Departee Creek	11010013	-020	4C	46.1	UWDTC01		x															x						x			New data indicates attainment
Glaise Creek	11010013	-021	4C	30.1	UWGSC01		x															x						x			New data indicates attainment
Cypress Bayou	8020301	-010	4D	5.0	UWCPB01		x														x							x			New data indicates attainment
Bull Creek	8020301	-009	4D	29.0	UWBLB01		x															x						x			New data indicates attainment
Bayou Des Arc	8020301	-006	4D	17.8	WHI0056		x															x						x			New data indicates attainment
Hicks Creek	11010004	-015	4F	9.1	WHI0065			x											x							x					TMDL Completed
Crooked Creek	11010003	-049	4I	36.2	WHI0067+											x	x													UN	New data indicates attainment
White River	11010001	-023	4K	6.2	WHI0052											x		x												UN	New data indicates attainment
St. Francis River	8020203	-008	5A	55.9	FRA0013										x													x			New data indicates attainment
St. Francis River	8020203	-009	5A	17.1	e										x													x			New data indicates attainment
Caney Creek	8020205	-901	5B	9.0	FRA0034													x								x					New data indicates attainment

Highlighted cells depict stream segments removed from Arkansas' 303(d) list