



Arkansas Natural Resources Commission



J. Randy Young, PE
Executive Director

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Mike Beebe
Governor

August 16, 2012

Ms. Marty Garrity
Executive Secretary
Arkansas Legislative Council
Room 315, State Capitol Building
Little Rock, Arkansas 72201

RE: Status Report to Legislative Council on Grand Prairie and Bayou Meto Projects

Dear Ms. Garrity:

Enclosed is a written report in response to Senator Mary Anne Salmon's request on the status of the two large irrigation projects currently under construction in East Arkansas. I look forward to appearing before the Legislative Council on September 21 to provide further information.

The Grand Prairie Area Demonstration Project and Bayou Meto Project are critical features of the Arkansas Water Plan. Both facilities will supplement agricultural water use to reduce the overdraft of the alluvial aquifer in the Grand Prairie Critical Groundwater Area. Further, supplying surface water will ensure protection of the deeper, Sparta aquifer for continued municipal and industrial uses.

Both projects are actively under construction but have relied on Congressional earmarks for the 65 percent federal cost share. The projects are not in the President's budget, so the earmarks ban threatens further work.

The US Army Corps of Engineers hopes to "reprogram" money within its Memphis District during the next few months to continue construction in Federal Fiscal Year 2013. The internal Corps of Engineers reprogramming request is for \$11.4 million from the Federal Fiscal Year 2012 budget to go to the projects. Seven million dollars would go to Grand Prairie and \$4.4 million to Bayou Meto for "shovel ready" work. The reprogramming process includes approval at Corps of Engineers headquarters, the Office of Management and Budget, both the Senate and House Appropriations Subcommittees. It is my understanding that the only remaining approval or signoff at this time is the House Energy and Water Development Subcommittee

Ms. Marty Garrity

Page 2

August 16, 2012

Without this money, both projects will be mothballed. Shutdown, maintenance, and restarting will not only delay completion when federal money again becomes available, but will add to the total cost.

The Arkansas Natural Resources Commission, White River Irrigation District, and Bayou Meto Water Management District continue to stress the importance of groundwater protection for agriculture as well as for the hundreds of thousands of Arkansans who depend on the alluvial and Sparta aquifers for their drinking water.

Attached are reports on each of the projects with progress to date, expected work in the coming year, money spent, and money needed to proceed.

Please contact Edward Swaim of my staff if you have any questions. His e-mail is edward.swaim@arkansas.gov, and his telephone number is 501-682-3979.

Sincerely,



J. Randy Young, P. E.
Executive Director

JRY/ECS/lab

cc: Sen. Mary Anne Salmon
Mr. Lynn Sickel, WRID
Mr. Gary Canada, BMWMD
Mr. Dennis Carman, WRID
Mr. Gene Sullivan, BMWMD

**Status Report to the Arkansas Legislative Council on the Grand Prairie Area
Demonstration Project and Bayou Meto Water Management District Irrigation Project**
Arkansas Natural Resources Commission
September 21, 2012

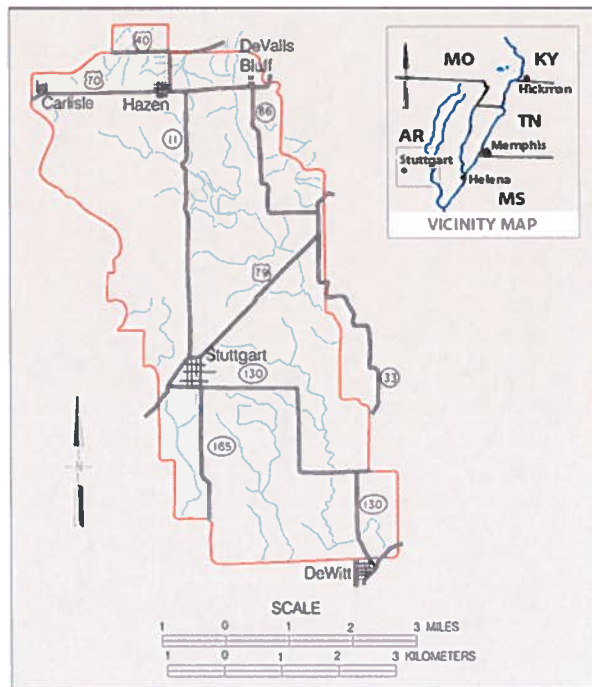
The Grand Prairie Area Demonstration Project

Overview

The State of Arkansas through the Arkansas Natural Resources Commission is the non-federal sponsor of the project with the White River Irrigation District (WRID), an improvement district which will operate the project upon completion. The State is using its bonding authority to provide the non-federal cost share (35 percent of project cost) to match federal money (65 percent of project costs) as it becomes available.

To date, a total of \$132 million has been invested in the project (\$99 million federal and \$33 million state and local), and the project is 23% complete.

Project area



The project encompasses 362,662 acres located between the White and Arkansas Rivers and covers most of the area known as the "Grand Prairie." The project area is approximately 40 miles in length and averages about 15 miles in width. The city of Stuttgart is located near the center.

What will happen in Federal Fiscal Year 2013?

Federal money for the project has come from Congressional appropriations. With the “earmarks” ban and the lack of money for the project in the President’s budget, federal money is running out.

The US Army Corps of Engineers hopes to “reprogram” money within the Memphis District during the next few months to continue construction in Federal Fiscal Year 2013. Seven million dollars of reprogrammed money would go to Grand Prairie. The reprogramming process requires approval at Corps of Engineers headquarters, the Office of Management and Budget, both the Senate and House Appropriations Subcommittees. Approval or signoff at this time remains with the House Energy and Water Development Subcommittee.

If federal money is unavailable, design and construction activities will be suspended. This will delay the project and increase its cost. The Alluvial and Sparta aquifers will continue to decline in the area and less water will be available for food and fiber production.

Completed construction



On-Farm storage reservoirs
Approximately 250 have been constructed as part of the project



Tailwater recovery structures

- Over 200 have been built in the project area to conserve water by reusing irrigation runoff



Pumps and motors

Six electric motors and water pumps sit in storage in Memphis awaiting completion of pump station

Ongoing construction

Work continues on the pump station at DeValls Bluff. The inlet channel from the river and the first segment of large pipes to move the water from the pump station to nearby high ground for distribution are complete. There is currently not enough available federal money to complete the infrastructure necessary to deliver water.



Pump station substructure
\$9.8 million contract, 79% complete



Discharge pipes
\$10.6 million contract, 98% complete

Ongoing design work

Widened Canal Reservoir

Design is “shovel ready” pending funding

Discharge Pipes, Segment 2

Design complete and is “shovel ready” pending funding

Pump station header pipes

Next option to get “shovel ready”

100% design to be completed in FY13 pending funding

Pump station superstructure

Updating plans based on substructure as-built drawings received to date

100% design to be completed in FY13 pending funding

Electrical supply

The Corps of Engineers is conducting motor start analysis to evaluate Entergy’s proposed design.

Estimate for electric substation is \$7.63 million. Schedule to complete substation is 26 months

Conservation efforts

The White River Irrigation District and Bayou Meto Water Management District have sponsored Department of Agriculture Natural Resources Conservation Service Mississippi River Basin Initiative (MRBI) projects and will assist with installation and monitoring for more than \$30 million of on farm work for reservoirs, pipelines, tailwater recovery, irrigation water management, and other water quality and water conservation practices during the next three years. This work will conserve water and reduce runoff of nutrients into the Mississippi River and Gulf of Mexico.

The Bayou Meto Project

Overview

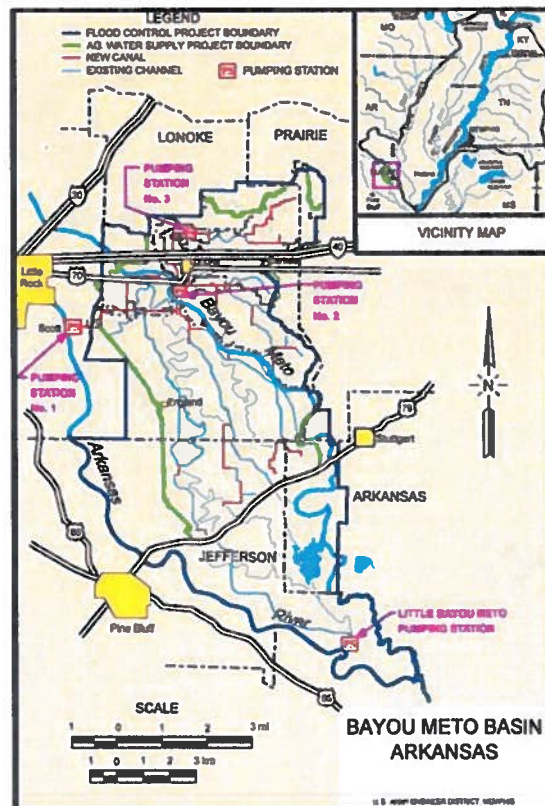
The Bayou Meto Project will deliver water from the Arkansas River to approximately 268 thousand acres of cropland in Lonoke, Prairie, Pulaski, Jefferson, and Arkansas Counties to supplement diminishing groundwater supplies and conserve groundwater for future use at sustainable levels. About 22 thousand acres of commercial fishponds will also receive water.

In addition to groundwater conservation and agricultural water supply, the project will have flood control and wildlife habitat restoration features, including water control for 33,700 acres in the Bayou Meto Wildlife Management Area.

Water will be pumped from the Arkansas River near North Little Rock. Distribution will be through a system of new canals, existing streams, pipelines, channel improvements, and control structures.

A separate pumping station on the south end of the project area near Reydell will pump water back into the river to regulate water levels in the system and in the Bayou Meto Wildlife Management Area.

Project area



Sponsorship and financing

The State of Arkansas through the Arkansas Natural Resources Commission is the non-federal sponsor of the project and is using its bonding authority to underwrite the non-federal cost share (35 percent of project cost) as federal money (65 percent of project costs) becomes available for construction.

To date, a total of \$81 million has been invested in the project (\$60 million federal and \$21 million state and local), and the project is 13% complete.

The Bayou Meto Water Management District (BMWMD) is an improvement district with taxing authority and will operate the project when complete.

Landowners in the project area have paid \$2,370,000 in property taxes to the BMWMD since 2004 in anticipation of the eventual delivery of water.

What will happen in Federal Fiscal Year 2013?

We have a three-year plan to complete “shovel ready” construction and begin delivering water to land in the upper end of the project area. This depends on continued federal cost share.

The 65 percent federal cost share for the project has come from the Congress, as it has never been part of the President’s budget. The “earmarks” ban threatens completion of the project.

The US Army Corps of Engineers hopes to “reprogram” money within the Memphis District during the next few months to continue construction on both projects in Federal Fiscal Year 2013. Four million four hundred thousand dollars of reprogrammed money would go to Bayou Meto. The reprogramming process requires approval at Corps of Engineers headquarters, the Office of Management and Budget, both the Senate and House Appropriations Subcommittees. Approval or signoff at this time remains with the House Energy and Water Development Subcommittee.

If no additional federal money becomes available through Corps of Engineers reprogramming, design and construction activities will be suspended. Until the project can deliver water, unsustainable depletion of the alluvial and Sparta aquifers will continue and we will see continued loss of water available for food and fiber production. Additionally, the flood control and wildlife benefits will be postponed. The cost of the project increases with delay.

Work completed to date

Construction continues on the two pump stations, both of which will be complete in the next year.



Pump Station No. 1
Construction is 69 percent complete.
Completion Date: July 2013



Little Bayou Metro Pump Station
Construction is about 60 percent complete.
Completion Date: December 2012

Ongoing design work

Outlet structure design – 100% Complete

Inlet channel design – 100% Complete

“Canal 1000” from the pumping plant to the natural channels and ditches that will deliver water to users is in the design phase.

Bridge design (to cross public highways) completion date September 2013.

Power

The Memphis District, Corps of Engineers is developing a strategy to get sufficient electrical power to the pumping plants if federal funds are reprogrammed. The Corps is comparing estimates to determine whether Entergy or the North Little Rock Electric Department is the more cost-effective electricity source for Pump Station No. 1.

Pump testing for both plants is being coordinated with the 249th Engineer Battalion (Prime Power) to occur in late 2012. This Army unit will travel to each pump station and provide electricity from high-output, portable generators to test the installed pumps.

Work with Arkansas Game and Fish Commission

Review continues on a proposed amendment to the State’s agreement with the federal government to give credit for work-in-kind by the Arkansas Game and Fish Commission. This work, which includes items such as channel clearing, is required on the southern end of the project area and is part of the 35 percent state and local cost share.

Conservation efforts

The Bayou Meto Water Management District and White River Irrigation District have sponsored Department of Agriculture Natural Resources Conservation Service Mississippi River Basin Initiative projects and will assist with installation and monitoring for more than \$30 million of on farm work for reservoirs, pipelines, tailwater recovery, irrigation water management, and other water quality and water conservation practices during the next three years. This work will conserve water and reduce runoff of nutrients into the Mississippi River and Gulf of Mexico.

Attachments

- A. Grand Prairie fact sheet, construction schedule schematic, and estimated costs map
- B. Bayou Meto fact sheet, construction schedule schematic, and estimated costs map
- C. Project photographs
- D. 2012 Drought impact on groundwater levels summary
- E. Copy of PowerPoint presentation

Attachment A.

As of: 3 April 2012

Project Name: Grand Prairie Region, AR

Appropriation: MR&T, Construction

Authority: FCA 1950, Sec. 204 (authorized construction); WRDA 1986, Sec. 1001(b) (de-authorized project); WRDA 1996, Sec. 363 (authorized for construction, expanding the scope to include ground water protection and conservation, agricultural water supply, and waterfowl management).

Location and Description: The project is primarily located in Arkansas and Prairie Counties and a small portion in Lonoke and Monroe Counties. This project will provide for agricultural water supply, ground water protection, and fish and wildlife restoration and enhancement. It will address depletion of the Alluvial and Sparta aquifers. The project features include a major pumping station, conveyance channels, and conservation measures for the Grand Prairie area.

Local Interest/Sponsor: The State of Arkansas and the White River Regional Irrigation Water Distribution District.

Summarized Financial Data:	Construction¹
Estimated Federal Cost	\$ 293,000,000
Estimated Non-Federal Cost	157,000,000
Cash	(86,350,000)
Other	(70,650,000)
Total Estimated Cost	\$ 450,000,000

Allocations thru FY 2011	\$ 98,925,600
Allocation for FY 2012	592,000
Balance to Complete After FY 2012	\$ 193,482,400
President's Budget Request for FY 2013	0
Total Amount that Could be Used in FY 2013	\$ 54,000,000

¹ Includes Planning, Engineering and Design (PED) costs.

FY 2012 Activities: FY 2012 funds are being used for construction and engineering support to complete the DeValls Bluff Pumping Station substructure and the Discharge Pipes, Segment 1 contracts. The Discharge Pipes, Segment 1 contract is scheduled for completion in August 2012. The DeValls Bluff Pumping Station Substructure contract is scheduled for completion in November 2012.

FY 2013 Activities: No funds are included in the President's Budget for this project. An orderly shutdown plan for the project has been initiated due to lack of funding. \$54,000,000 could be used as follows:

Description of work	Amount (\$)
Fully fund construction, DeValls Bluff Pumping Station Superstructure	21,900,000
Fully fund construction, Discharge Pipes, Segment 2	10,000,000
Fully fund construction, Electrical Substation	7,000,000
Fully fund construction, Discharge Pipes Header Pipes	5,800,000
Fully fund construction, Widened Canal Reservoir	9,300,000
Total	54,000,000


Issues and Other Information: As available funds are exhausted, project activities will be suspended. Without further funding, the remaining structures that are needed to realize the benefits of this project will not be completed, including completion of the pump station, the conveyance channels and conservation measures. To date, a total of \$132,000,000 has been invested in the project (\$99,000,000 Federal; \$33,000,000 non-Federal) and the project is 23% complete.

Attachment A

Page 1 of 3

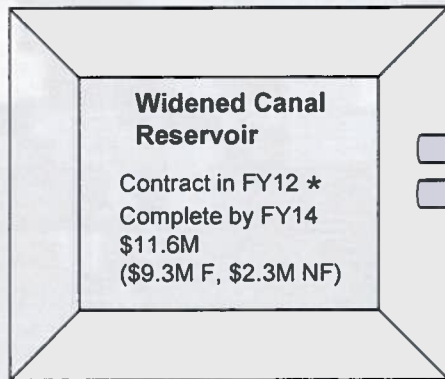
Grand Prairie Project Project Schedule

* - Assuming \$54.0 Million Federal Funds in FY12 - FY13

 - Fully Funded as of September 30, 2011

Pumps 
Complete and
in Storage

Motors 
Complete and
in Storage



Canal 1000

Canal 1000
Contract in FY14
Complete by FY15
\$2.0M
(\$1.6M F, \$0.4M NF)

State Hwy 70

**Canal 2000
Segment 1 to Hwy 63**

Contract in FY14
Complete by FY16
\$12.5M (\$10.0M F, \$2.5M NF)

Pump Station Header Pipes

Contract in FY13 *
Complete by FY15
\$7.2M
(5.8M F, \$1.4M NF)


Discharge Pipes Segment 2

Contract in FY12 *
Complete by FY14
\$12.5M (\$10.0M F, \$2.5M NF)

Discharge Pipes Segment 1 

Under Construction
Complete by FY12
\$10.6M (\$8.6M F, \$2.0M NF)

Pump Station Substructure

Under Construction 
Complete by FY12
\$30.2M (\$25.4M F, \$4.8M NF)

Pump Station Superstructure

Contract in FY13 *
Complete by FY15
\$27.5M
(21.9M F, \$5.6M NF)

Inlet Channel 

Completed FY11
\$1.87M
(\$1.49M F, \$0.38M NF)

Electrical Substation

Contract in FY12 *
Complete by FY15
\$8.7M
(\$7M F, \$1.7M NF)

Items of Work:

Infrastructure and Distribution System - \$332.5M
On-Farm Work - \$106.0M
Sunk PED (Planning, Engineering, and Design) Costs - \$ 11.5M
Total Project Cost \$450.0M

White River



Not to Scale

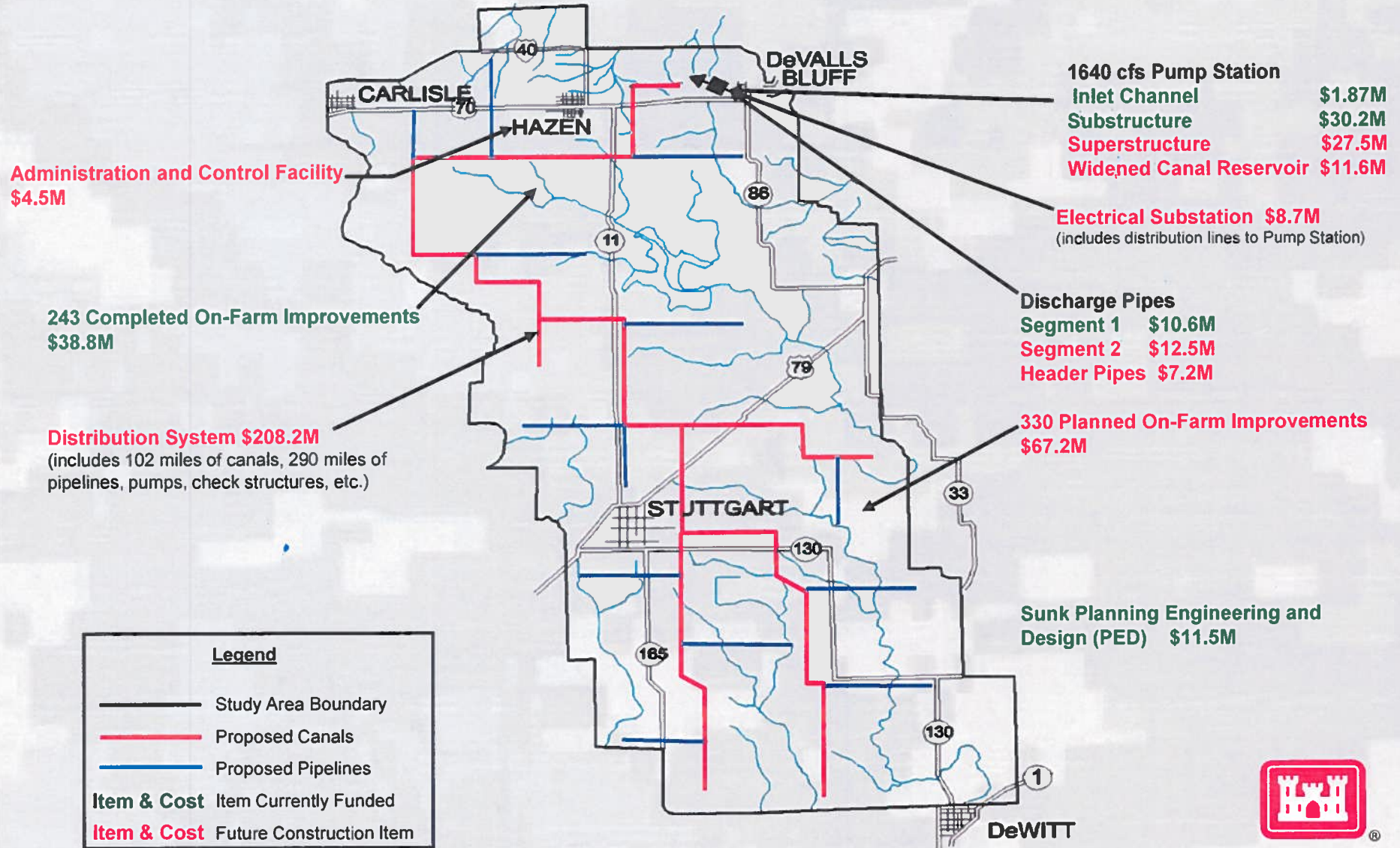
Shovel Ready Items in FY12, Priority. & Fed. Funds Required

1. \$10.0M – Discharge Pipes, Segment 2 – RTA in August 2012
 2. \$9.3M – Widened Canal Reservoir – RTA in May 2012
- Total = \$19.3M Federal Funds**



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Attachment B

Grand Prairie Estimated Costs



Attachment B.

Project Name: Bayou Meto Basin, AR**Appropriation:** MR&T Construction**Authority:** WRDA 1996, Sec. 363

Location and Description: The project is located in east central Arkansas in Lonoke, Pulaski, Prairie, Jefferson, and Arkansas Counties. The major problems are agricultural flooding, loss of environmental resources, and the depletion of the alluvial aquifer, which provides essentially all the water used for agricultural irrigation and supports area wetlands. Features of the project include diversion of excess water from the Arkansas River via a delivery system made up of pump stations, new canals, existing streams, and pipelines to the water depleted areas; channel improvements and a pumping station to provide an outlet to reduce flooding; waterfowl conservation and management measures; and other environmental restoration and enhancement features.

Local Interest/Sponsor: The State of Arkansas is assuming non-Federal sponsorship of the project and is using its bonding authority to insure that funding for the non-Federal cost share is available when Federal funds become available for construction. The Bayou Meto Water Management District (BMWMD) is a legal entity with taxing authority in partnership with the State of Arkansas.

Summarized Financial Data:	PED¹	Construction
Estimated Federal Cost	\$26,459,000	\$ 395,337,000
Estimated Non-Federal Cost	706,000	218,837,000
Cash	(706,000)	(124,173,000)
Other	(0)	(94,664,000)
Total Estimated Cost²	\$ 27,165,000	\$ 614,174,000

Allocations thru FY 2011	\$ 26,459,000	\$ 60,303,700
Allocation for FY 2012	0	0
Balance to Complete After FY 2012	\$ 0	\$ 335,033,300
President's Budget Request for FY 2013	0	0
Total Amount that Could be Used in FY 2013	\$ 0	\$ 90,600,000

¹ Preconstruction, engineering and design (PED) costs are included in the Construction costs.

² Total estimated cost at Oct 2008 price levels.

FY 2012 Activities: Prior year funds are being used to amend the Project Partnership Agreement (PPA) at the sponsor's request to add a provision to allow credit to the sponsor for work-in-kind services. An Integral Determination Report, which is required to amend the PPA for work in-kind credit, was approved by the ASA(CW) on 7 December 2011. A draft PPA amendment has been prepared for review by higher headquarters and is scheduled to be executed with the sponsor in August 2012. ARRA funds are being used to construct Pump Station No. 1 which is 64% complete and has a scheduled completion date of July 2013 (Total \$31.2M; \$20.3M Fed; \$10.9 non-Fed) and Little Bayou Meto Pump Station which is 60% complete and has a scheduled completion date of November 2012 (Total \$11.9M; \$7.5M Fed; \$4.4M non-Fed).

FY 2013 Activities: No funds are included in the President's Budget for this project. An orderly shutdown plan for the project could be initiated due to lack of funding. Funds of \$90,600,000 could be used as follows:

Description of work	Amount (\$)
Design & construct electrical substation/ transmission line, Little Bayou Meto Pump Station	4,400,000
Design & construct electrical substation & transmission line, Pump Station No. 1	4,400,000
Fully fund construction for inlet channel feeding Pump Station No. 1	3,300,000
Fully fund construction of Outlet Structure at the Reservoir	1,600,000
Fully fund construction of Phase 1 Canal 1000	6,000,000
Complete plans and specifications of Canal 1000	3,000,000
Initiate construction of wildlife management area features	2,800,000
Item 2, Canal 1000 and 2000	15,700,000
Item 5, Canals 2100, 2140, and 2160; Caney Creek (2120)	6,600,000
Design and construct Little Bayou Meto connection channel cleanout, diversion structure, and levee	11,700,000
Design and construct Lower Boggy Slough channel cleanout	700,000
Design and construct Wabbaseka Bayou channel cleanout and restoration	3,600,000
Design and construct Herbaceous Wetland Complex Restoration	4,700,000
Design and construct Moist-Soil Habitat	600,000
Riparian Buffer Restoration	1,500,000
Design of Water Supply Features	20,000,000
Total	90,600,000

Issues and Other Information: If no additional funds are appropriated, design and construction activities will be suspended. The impact of not completing this project is the continual depletion of the Alluvial and Sparta aquifers and the environmental benefits of the waterfowl management component will not be realized. To date, a total of \$81,000,000 has been invested in the project (\$60,000 Federal; \$21,000,000 non-Federal) and the project is 13% complete.

Bayou Meto 3-Year Construction Schedule

Electrical Infrastructure (PS No. 1)

* Contract in FY12
Complete by FY13
\$6.8M Total (\$4.4M F; \$2.4M NF)

Inlet Channel

* Contract in FY12
Complete by FY14
\$5.0M (\$3.3M F; \$1.7M NF)

Arkansas River

Electrical Infrastructure (LBMPs)

* Contract in FY12
Complete by FY13
\$6.8M Total (\$4.4M F; \$2.4M NF)

Little Bayou Meto Pump Station

Under Construction
Complete by FY13
\$11.9M (\$7.5M F; \$4.4M NF)
Existing Levee

Pump Station Number 1

Under Construction
Complete by FY13
\$31.2M (\$20.3M F; \$10.9M NF)

Regulation Reservoir

Under Construction
Complete by FY13
Included in Pump Station No. 1 Contract

Outlet Control Structure

* Contract in FY12
Complete by FY14
\$2.4M (\$1.6M F; \$0.8M NF)

Canal 1000 (1st 4 Miles)

* Contract in FY13
Complete by FY15
\$9.2M (\$6.0M F; \$3.2M NF)

Canal 1000

Canal 1000 (Remainder), Canals 2000 & 2100

* Contract in FY13
Complete by FY15
\$34.5M (\$22.4M F; \$12.1M NF)

Other Items:

Remaining Distribution System (canals, pumps, pipelines, etc.) - \$300.0M
Agricultural Water Supply Mitigation - \$ 2.4M
On-Farm Work - \$ 82.0M
Waterfowl Management Area Improvements - \$ 54.6M
Flood Control - Channel, Creek and Ditch Improvements - \$ 39.1M
Flood Control Mitigation - \$ 5.0M
Sunk PED (Planning, Engineering, and Design) Costs - \$ 23.3M

Total Cost

Total Project Cost - \$614.2M

Shovel Ready Items in FY12, Priority, & Fed. Funds Required

1. \$4.4M - Electrical Infrastructure - LBMPs - Contract in June
 2. \$4.4M - Electrical Infrastructure - PS #1 - Contract in August
 3. \$3.3M - Inlet Channel to PS No.1 - RTA in April
 4. \$1.6M - Outlet Control Structure - RTA in March
 5. \$2.5M - Earthwork for a portion of Canal 1000 - RTA in Sept.
- Total = \$16.2 M Federal Funds**



Fully Funded as of January 18, 2012

* Assuming \$39.1 Million Federal Funds in FY12-13



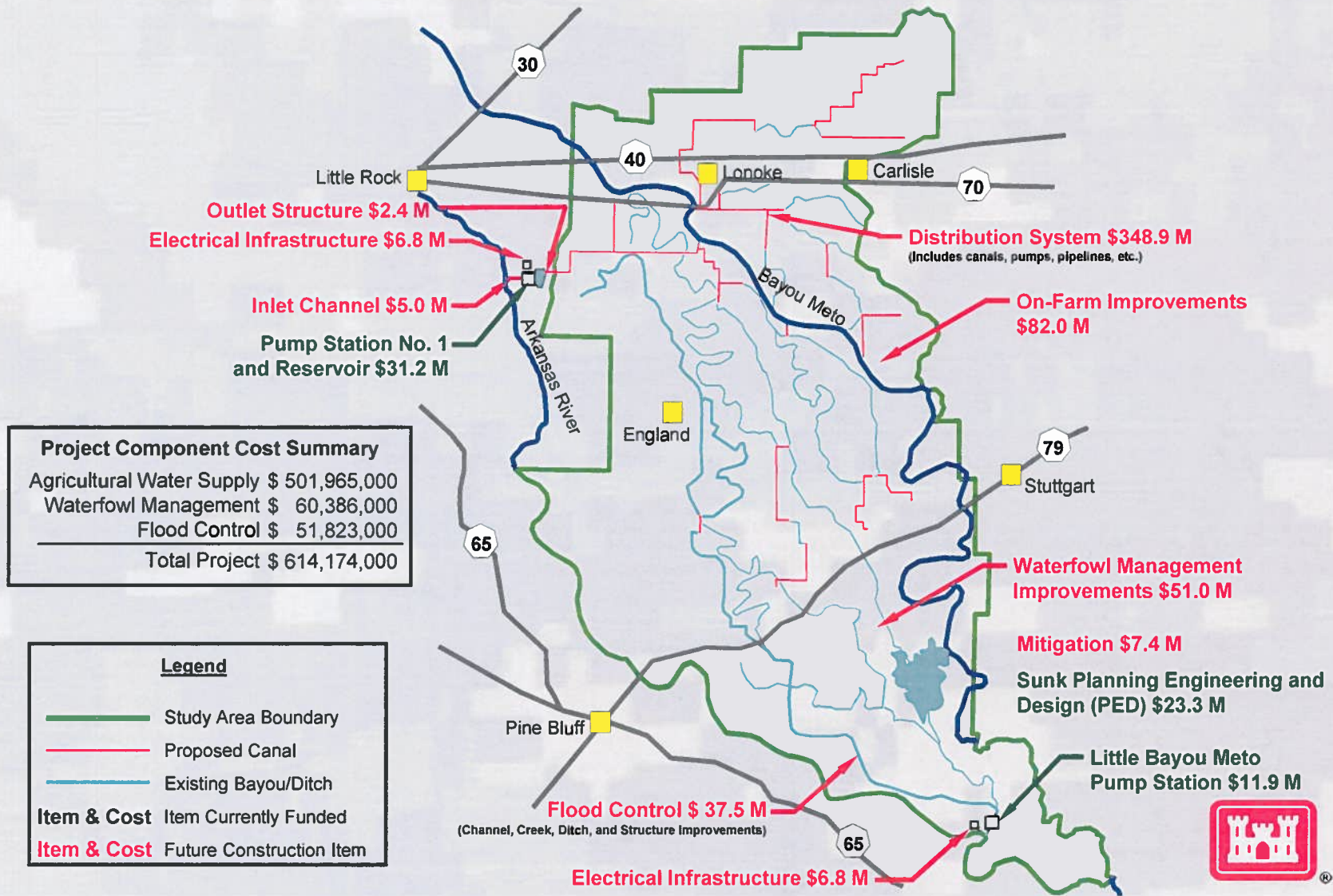
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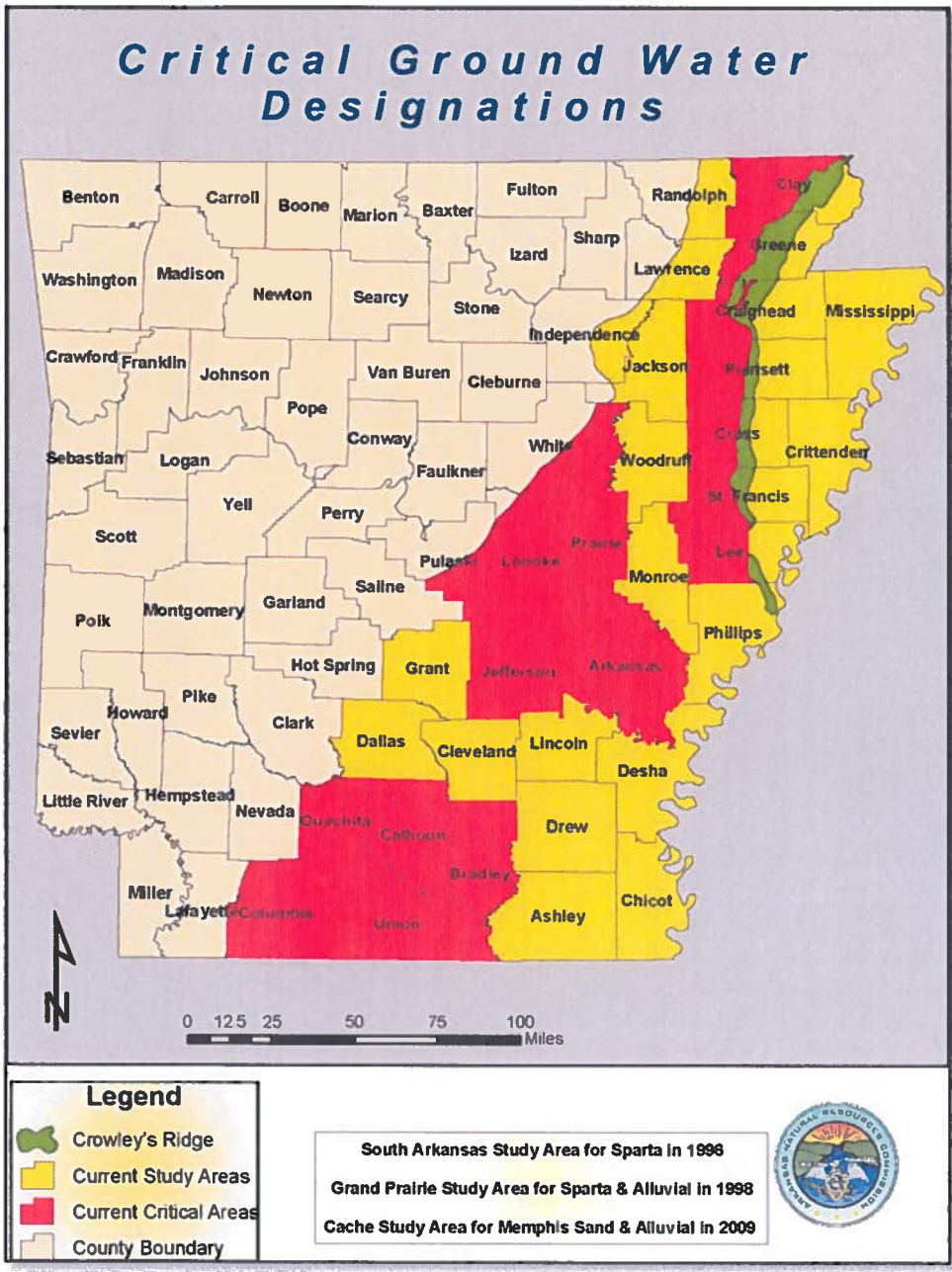
Attachment B
Page 2 of 3

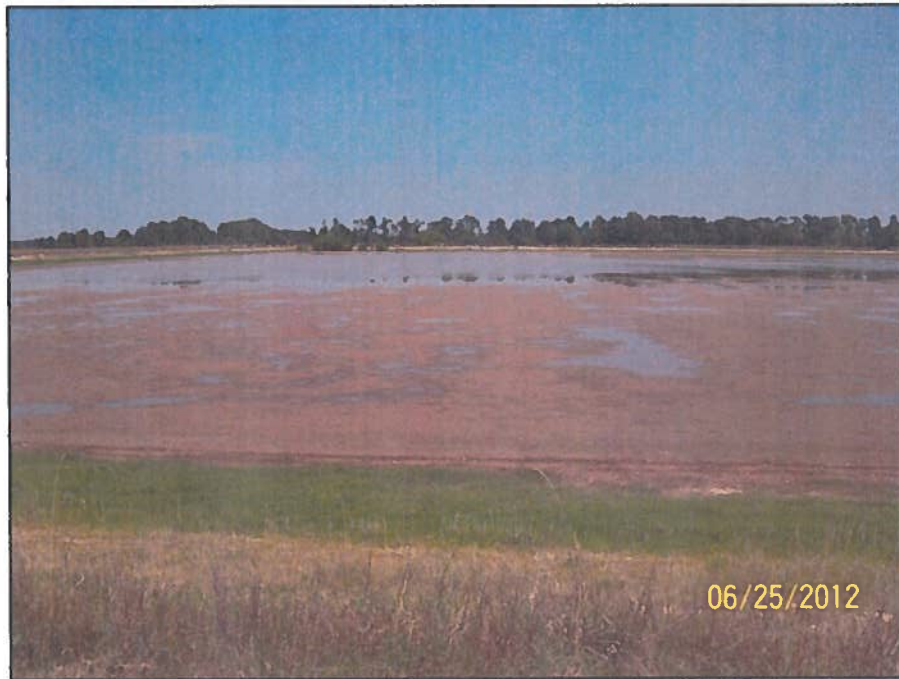
Bayou Meto Estimated Costs



Attachment C.

Status Report on Grand Prairie Area Demonstration Project and Bayou Meto Project
 Arkansas Natural Resources Commission
 Attachment C

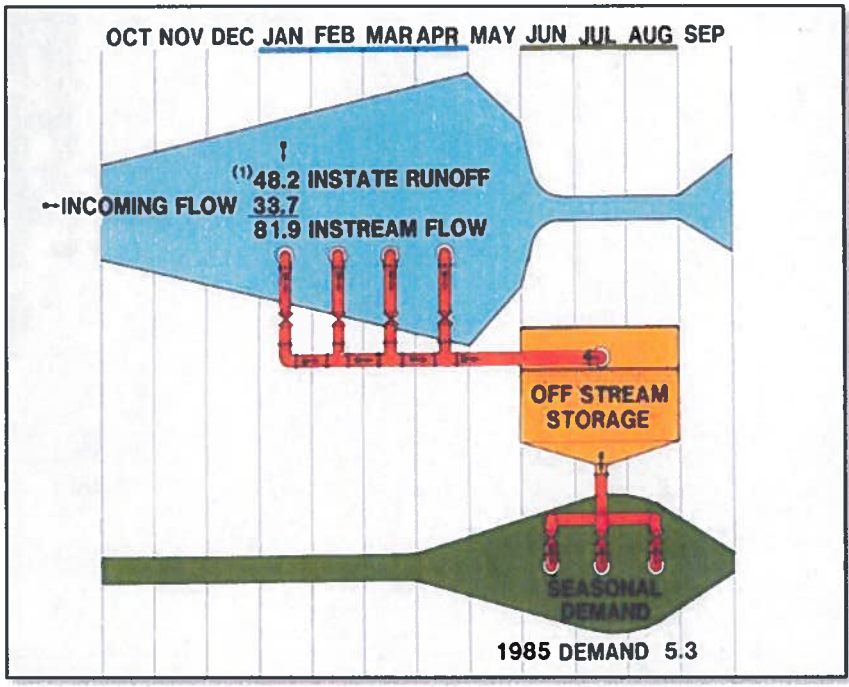




On-Farm Storage Reservoirs, Grand Prairie Area Demonstration Project
Lack of rainfall this summer and inability to deliver water from Project have caused them to dry out, so groundwater overdraft continues where groundwater is still available.



On-farm storage reservoirs completed by the Grand Prairie Project
Empty now, but reservoirs have been critical for the survival of many farms in 2012.



Seasonal Availability and Demand

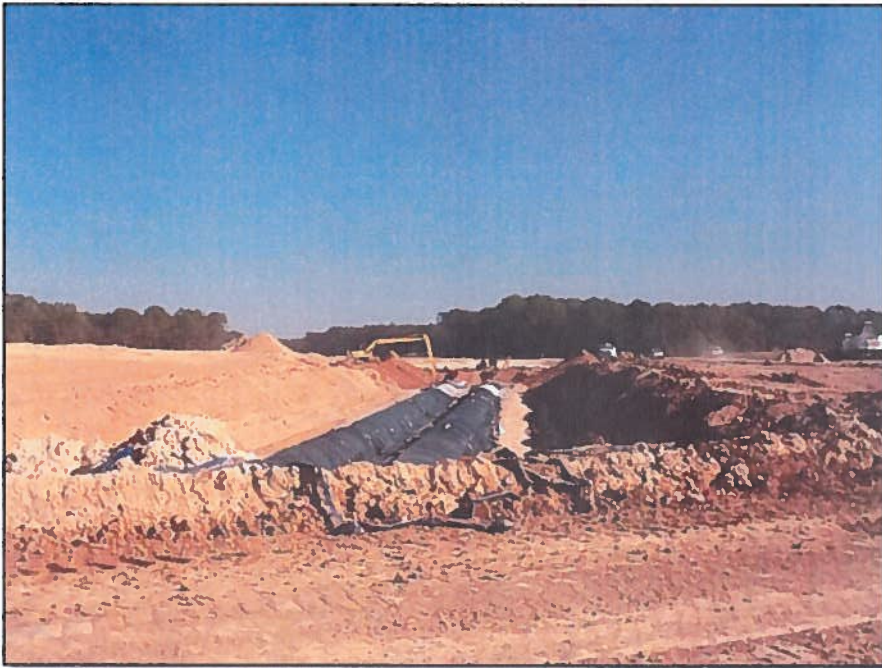
Irrigation projects are designed to capture, distribute, and store excess surface water during the spring, when there are high instream flows. Water stored on farms is then used during summer months when flows are lower, but demand is high.



White River flooding at Grand Prairie plant spring 2011



**Grand Prairie Area Demonstration Project
Pump station at DeValls Bluff currently under construction**



Grand Prairie Project Pipeline Segment 1 nearing completion



Grand Prairie Project pump motor in storage in Memphis
Six motors and 6 pumps sit in waiting for federal money to complete the pump station



Bayou Meto Pump Station No. 1 splash basin



Bayou Meto Pump Station No. 1 inlet channel



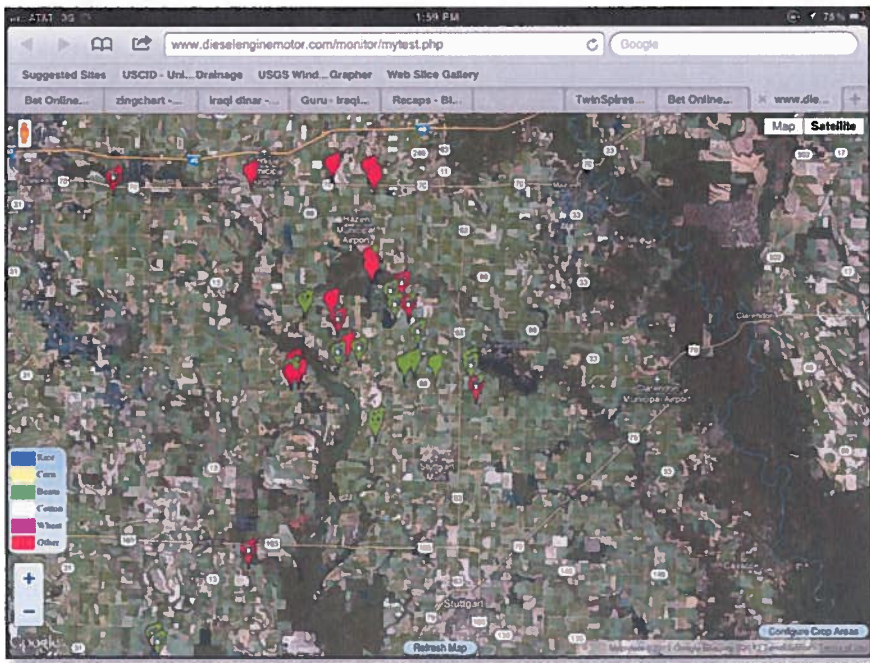
Little Bayou Meto Pump Station



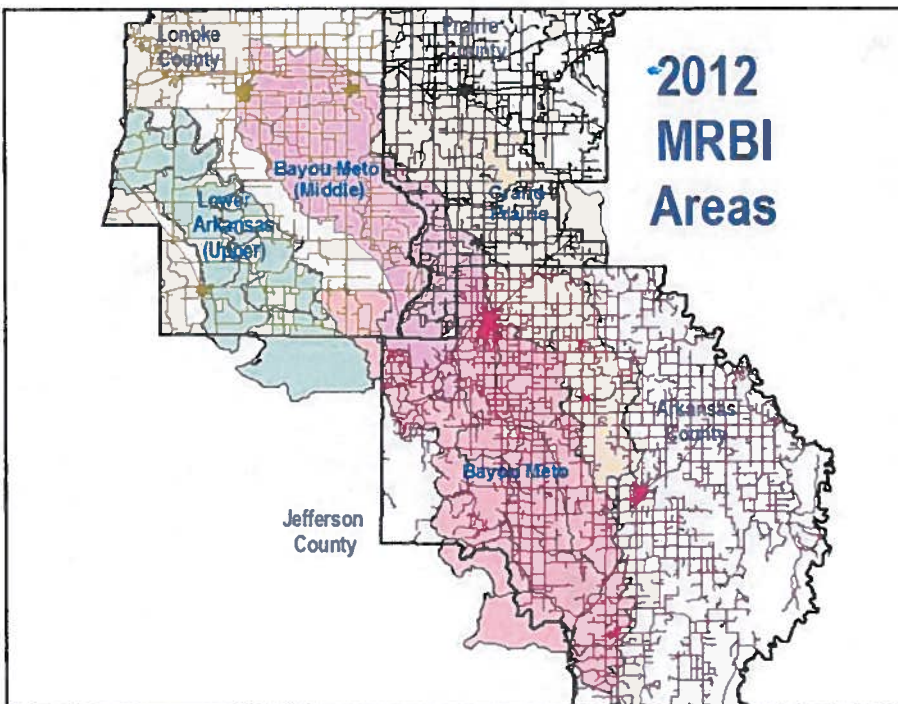
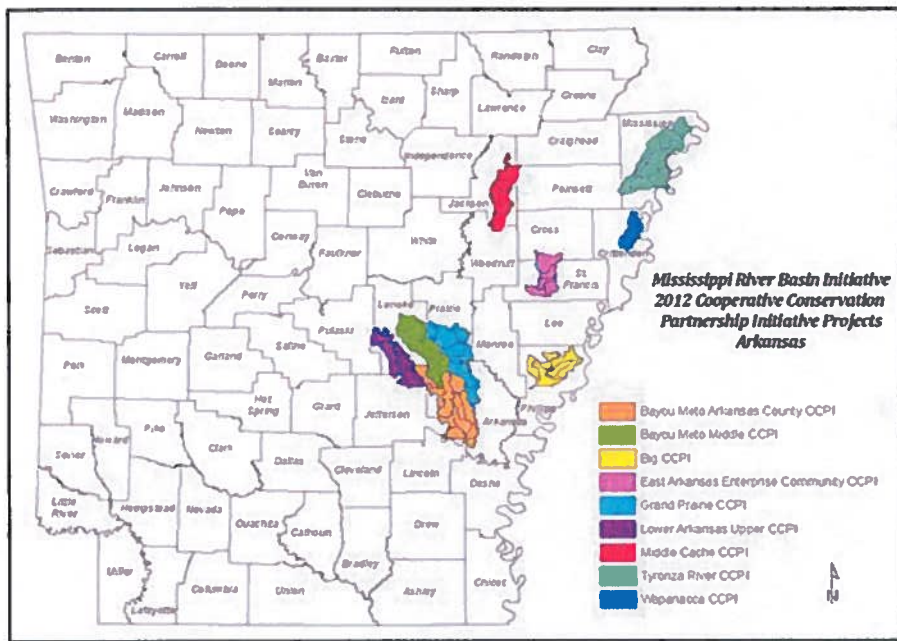
186,000 Gallon per minute pump installation at Bayou Meto Pump Station No. 1



Flow rate measurement for calibrating pumps to increase efficiency



Water conservation stations in Grand Prairie Project area



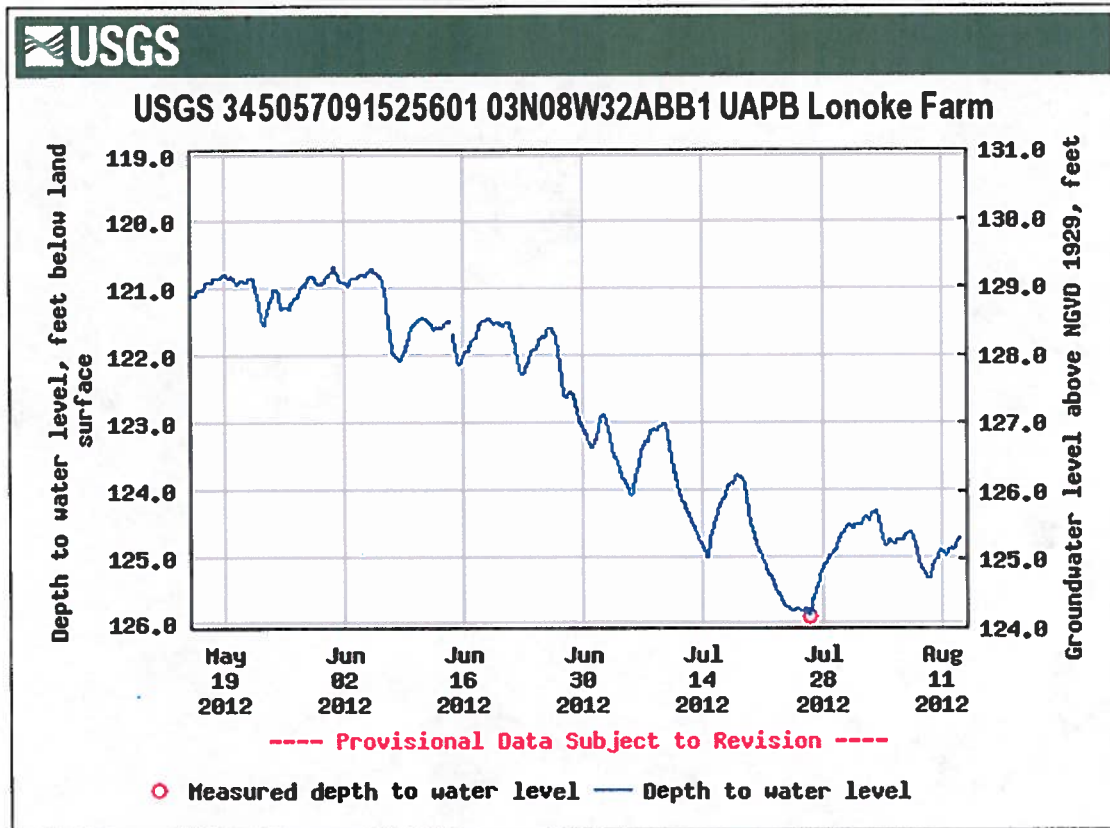
The irrigation districts have sponsored MRBI projects and will assist with installation and monitoring for more than \$30 million of on farm work for reservoirs, pipelines, tailwater recovery, irrigation water management and other water quality and water conservation practices during the next 3 years.



One of more than 200 tailwater recovery systems completed by Grand Prairie

Attachment D.

2012 Drought Impact on Groundwater Levels



Though the impact of abnormally low precipitation on groundwater levels in Arkansas will not be documented comprehensively until after the fall and spring water-level measurements are completed, some preliminary results are available. According to the National Weather Service, Arkansas has experienced serious drought conditions this year with average precipitation in the central Arkansas area being approximately 7.7 inches below normal for the year to date. Real-time data from a US Geological Survey/ Arkansas Natural Resources Commission (ANRC) monitoring well indicate a decline of about 4 feet in the past 90 days. The average decline for a typical year is about 3 feet through the end of August.

Preliminary measurements by the ANRC indicate a 2 foot decline in the alluvial aquifer of the Grand Prairie in one month.

Declines in the potentiometric surface from the deeper Sparta aquifer range from 8.9 feet to slightly over 65 feet. It should be noted that these declines reflect a change on the pressure head in a confined aquifer, rather than a decline in actual water level, or saturated thickness, as observed in the alluvial aquifer.

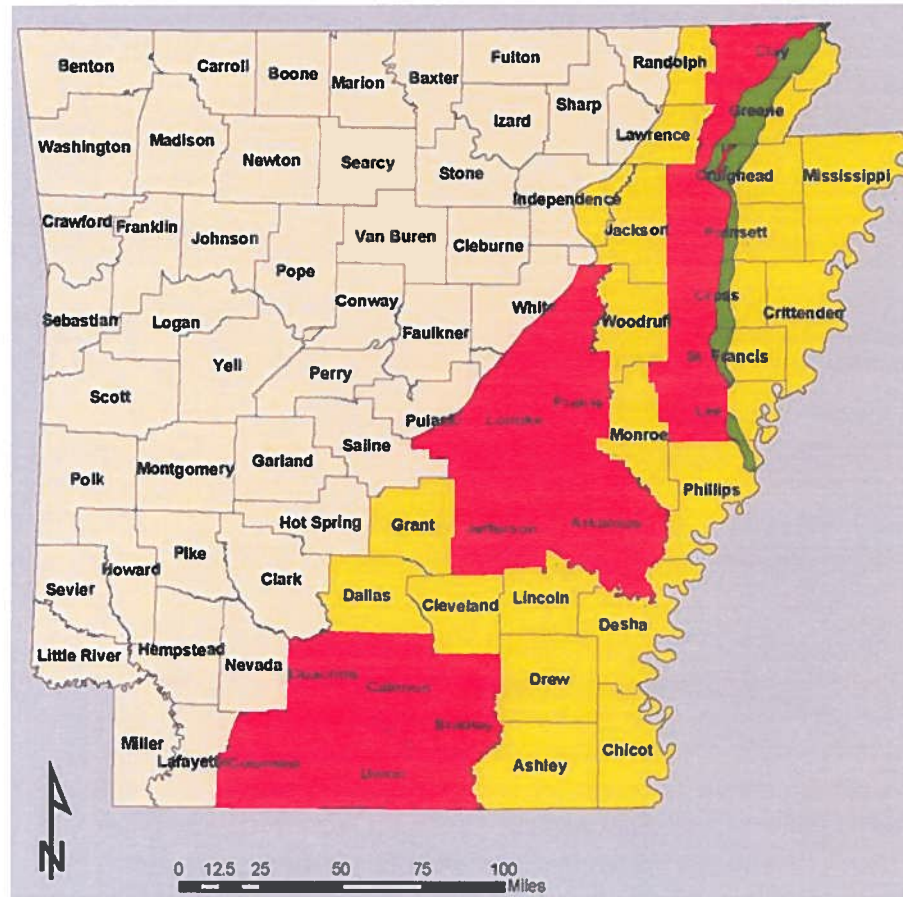
Attachment E.

Arkansas Natural Resources Commission

Report on the Status of the Grand Prairie Area
Demonstration Project and Bayou Meto Project



J. Randy Young, P.E.
Executive Director



Critical Groundwater Areas (In Red)

Both irrigation projects are within the Grand Prairie Critical Groundwater Area, where both the alluvial and Sparta aquifers are threatened by unsustainable withdrawals.



Dry Reservoir in Grand Prairie Project Area

Hundreds of reservoirs across the project areas have saved crops, but have been depleted during the record drought of 2012. If the projects were delivering water, the reservoirs would still be providing water with less demand put on our precious aquifers.



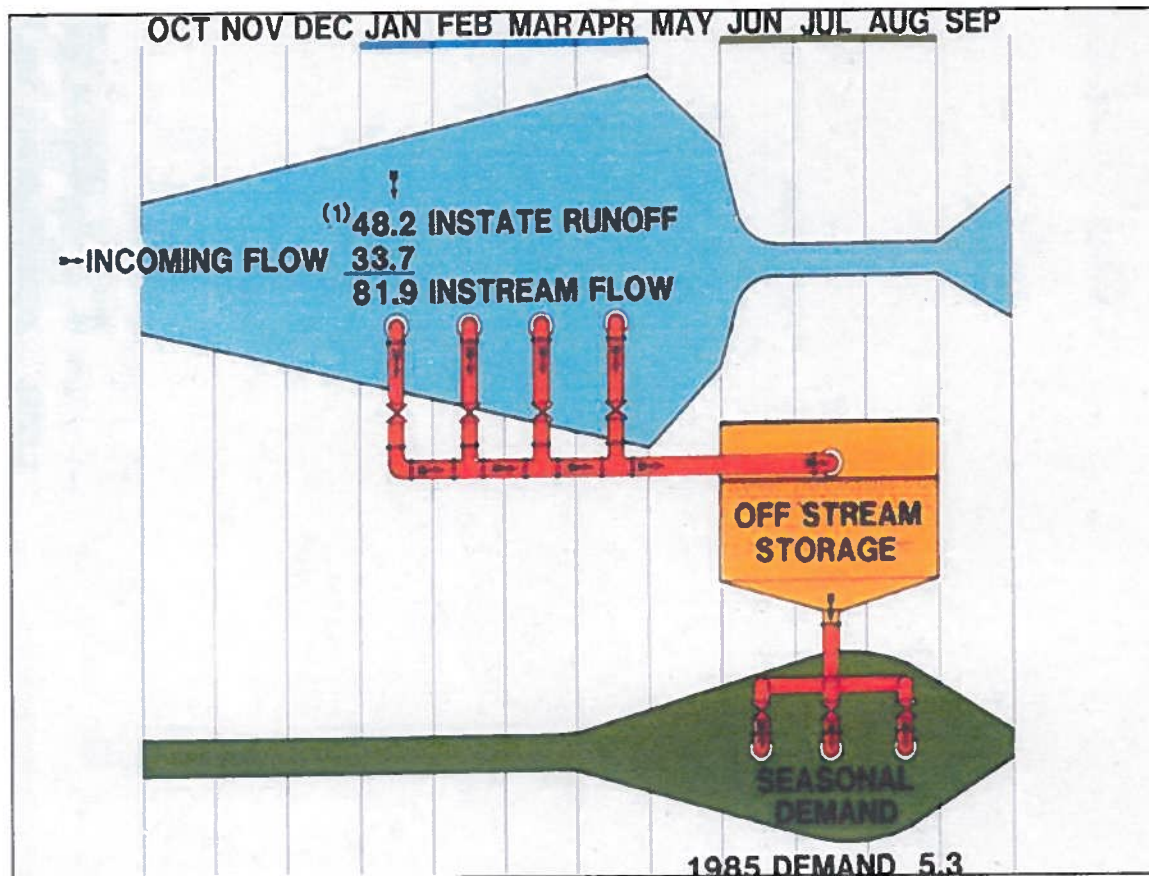
USGS 345057091525601 03N08W32ABB1 UAPB Lonoke Farm



2012 Drought Declines in a Typical Project-Area Well

Real-time data indicate a decline of about 4 feet in the past 90 days. The average decline for a typical year is about 3 feet through the end of August.

Preliminary measurements by the ANRC indicate a 2 foot decline in the alluvial aquifer of the Grand Prairie in one month.



**Arkansas Water Plan Recommendation:
Capture, Distribution, Off-Stream Storage**



Spring 2011 Flooding at White River Pump Station

We are missing the opportunity to withdraw and store our abundant excess surface water for the irrigation season.



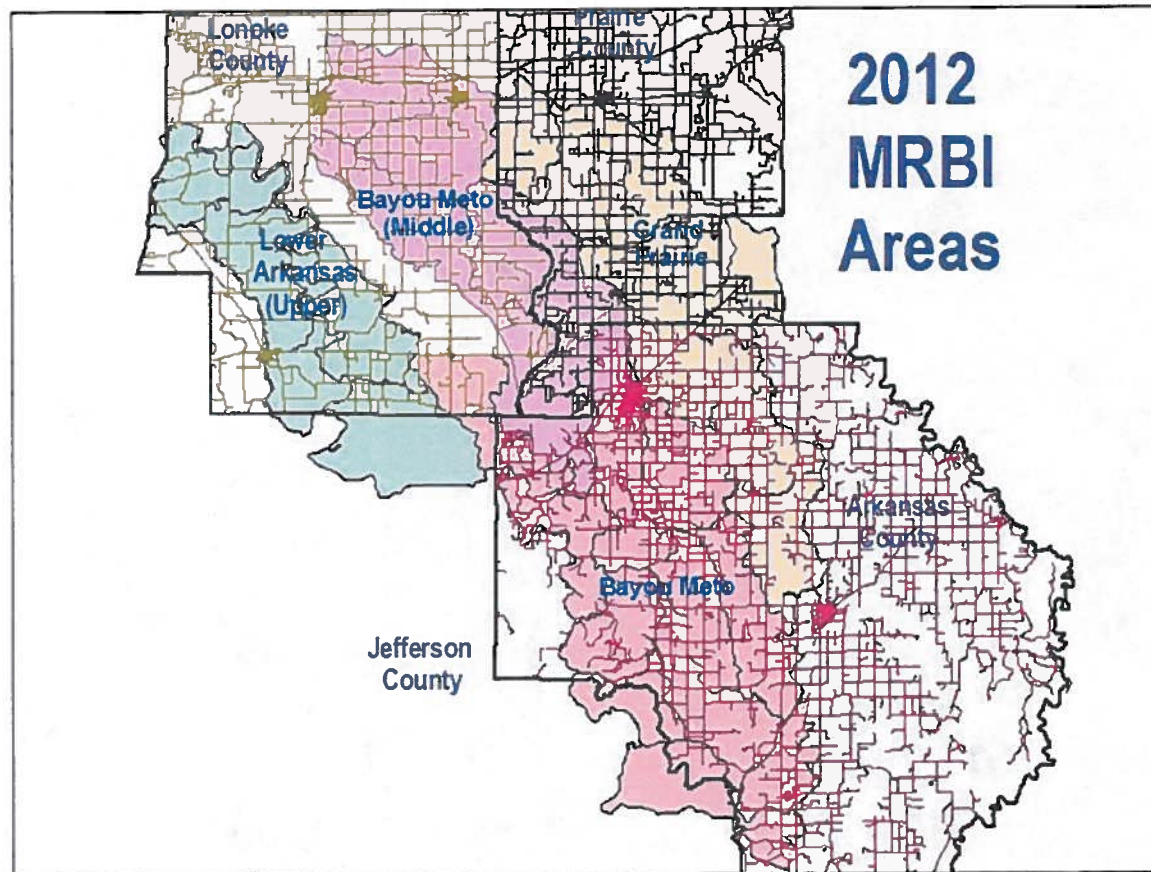
Over 250 Reservoirs Constructed by White River Project

On-farm storage reservoirs are an integral part of both irrigation projects. Over 250 have been built in the White River Project area and are supplementing groundwater use. However, the lack of a surface water delivery system has left them dry during the 2012 drought.



One of over 200 Tailwater Recovery Systems Installed

The projects will employ tailwater recovery and other water conservation measures to use delivered water wisely. In the White River Project area, over 200 tailwater recovery systems are built and in use.



Projects Incorporate Many Conservation Methods

The irrigation districts have sponsored MRBI projects and will assist with installation and monitoring for more than \$30 million of on farm work for reservoirs, pipelines, tailwater recovery, irrigation water management and other water quality and water conservation practices during the next 3 years.



Irrigation Efficiency Integral to the Projects

Flow rate assessment by the White River Irrigation District. Moisture and evaporation sensing equipment and remote pump controls have been installed in pilot projects to test efficiency improvements.



Grand Prairie Pump Station at DeValls Bluff

Substructure 79% complete.



Grand Prairie Pipes from Pumping Plant

The first phase of pipe installation to move water from the pumping plant to the Prairie is nearing completion. The second stage depends on the federal cost share.



Pumps and Motors Stored in Memphis

Six pumps and 6 motors are sitting in storage in Memphis and cannot be installed until money for remainder of pump station is available.

Money Invested in Grand Prairie

- Federal cost share = 65%
- State and local cost share = 35%
- The federal government has invested \$99,000,000 in the project
- The State of Arkansas and White River Irrigation District have invested \$33,000,000 in the project



Bayou Meto Pump Station No. 1 at Scott

69 % complete to date with anticipated completion July 2013.



Inlet Channel Bayou Meto Pump Station No. 1



Setting a 186,000 Gallon Per Minute Pump



Little Bayou Meto Pump Station at Reydell

This pump station will relieve flooding and allow regulation of water levels in the Bayou Meto Wildlife Management Area to support waterfowls and other habitat.

Money Invested in Bayou Meto

- Federal cost share = 65%
- State and local cost share = 35%
- The federal government has invested \$60,000,000 in the project
- The State of Arkansas and Bayou Meto Water Management District have invested \$21,000,000 in the project
- The landowners within the district have paid property taxes of \$2,370,000 since they approved the assessment in 2004

"ORDERLY SHUTDOWN"



Continued Federal Cost Share Vital

- Neither project is in the President's budget and have depended on Congress for progress so far
- The "earmarks" ban has shut funding off
- An internal Corps of Engineers reprogramming request for \$11.4 million from the Federal Fiscal Year 2012 budget would keep the projects going
- Seven million dollars would go to Grand Prairie and \$4.4 million to Bayou Meto for "shovel ready" work

Conclusion

- Great progress has been made with both projects to deliver, store, and conserve water
- The Drought of 2012 has severely stressed water supplies
- The alluvial and Sparta aquifers continue to decline
- The Arkansas Water Plan stresses the need to reduce groundwater use to sustainable levels through conservation and the use of excess surface water
- Agriculture is the base of the Arkansas economy and depends on reliable, abundant water
- Continued aquifer depletion and increasing use of Sparta water for irrigation threaten drinking water supplies for half of our state