US Army Corps
of Engineers
Memphis District

# GRAND PRAIRIE REGION AND BAYOU METO BASIN, ARKANSAS PROJECT

# BAYOU METO BASIN, ARKANSAS

## GENERAL REEVALUATION REPORT

## VOLUME 11

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**NOVEMBER 2006**

US Army Corps of Engineers
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**GRAND PRAIRIE REGION AND BAYOU METO BASIN, ARKANSAS PROJECT**

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# GENERAL REEVALUATION REPORT (GRR) INDEX

# GRAND PRAIRIE REGION AND BAYOU METO BASIN, ARKANSAS PROJECT

# BAYOU METO BASIN, ARKANSAS

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# ECONOMICS AGRICULTURAL WATER SUPPLY COMPONENT

# ECONOMICS OF AGRICULTURAL WATER SUPPLY COMPONENT

## INTRODUCTION

The purpose of this section of the addendum is to address the areas of change from the Economics Appendix (Appendix E). These changes are for the selected plan only. The areas of change are:

(1) Discount Rate,
(2) Agricultural Price Levels,
(3) Price Level of the Project Costs,
(4) Reasonableness of the Benefit Projection Factors, and
(5) Use of the Sparta Aquifer as an Alternate Irrigation Source.

It was decided that only the selected plan would be presented in this section since all three of the above changes were viewed as relative. They would have the same effect on all of the alternatives presented in Appendix E and would not change the selected plan.

## DISCOUNT RATE

Since completion of the draft report, the current discount rate changed from 5.375% to 5.125%. Both of the following sections on changes in agricultural price levels and project cost price levels will use the now current discount rate of 5.125%

## AGRICULTURAL PRICE LEVELS

The agricultural price levels changed from FY 2004 levels to FY 2005 levels during internal technical review (ITR) of the project. An ITR comment was made noting this and a decision was made to incorporate these prices into the analysis of the selected plan. In addition to revising the benefits for the latest Current Normalized Prices, it was decided to reflect the most current available crop production costs and practices. Current University of Arkansas Extension Service crop budgets were revised to reflect project area irrigation practices/costs. These budgets were developed for the Sparta aquifer, the Alluvial aquifer, surface water, conservation practices, and dryland practices.

## PRICE LEVEL OF THE POJECT COSTS

The ITR also caught a discrepancy in the project costs. The price level of the project costs used in Appendix E was actually FY 2003. The price level of the project costs has been revised to current FY 2005 levels. For a detailed breakdown of the project costs please see the Cost Section of this Addendum. The cost of the pump stations and canals increased from $301,771,000 to 332,521,000 while the on-farm portion of the

project increased from $65,000,000 to $70,388,000. The operation and maintenance cost of the project were also revised to reflect the change from FY 2003 to FY 2005 price levels. These costs also reflect 13.2% increase in electricity as well as a significant increase in diesel prices.

## REASONABLENESS OF BENEFIT PROJECTION FACTORS

The benefit projection factors developed and used in Appendix E reflected approximately an 80% increase in benefits by the year 2062, the end of the period of analysis. This would approximate an increase in soybean yields from the current irrigated yield of 48 bushels to 85 bushels per acre. Rice would have a corresponding increase in yield from 7,200 to 12,800 pounds per acre. This increase caused a question to be raised during the comments as to whether this was reasonable. The Memphis District asked three agricultural economists from the University of Arkansas, Louisiana State University, and Mississippi State University to review the reasonableness of the projection process. These three universities are the prominent agricultural universities in the Mississippi Delta region.

## USE OF THE SPARTA AQUIFER AS AN ALTERNATE IRRIGATION SOURCE

The Sparta aquifer is a deep, high quality, low yielding aquifer located beneath the project area. It was never assumed to be a viable long-term source of irrigation water due to its high cost. Irrigating from the Sparta aquifer costs more than the revenue gained in all but the most favorable market conditions. However, a relatively small number of the area's farmers have been put in an unfavorable short term situation by their lenders. Their lenders have forced them to tap into the Sparta in order to secure their loans. The lenders are securing the collateral backing up their farm loans since irrigated land has a higher market value than land that has lost its irrigation water source. Currently there are estimated to be 100 wells irrigating 20,000 acres from the Sparta in the project area. Since there are some farmers irrigating from the Sparta, it was decided to include it in the projection of without-project irrigated acreage.

## DRYLAND SOYBEAN YIELDS

Dryland soybean yields were estimated by interviews with local farmers. The farmers repeatedly stated that their high clay content prairie soils were not suited for growing dryland soybeans. They estimated their yields in a range of 20 to 25 bushels or an average of 22.5 bushels per acre. During Headquarter review, the reviewer pointed out that county dryland averages were more in the range of 26 bushels per acre. This was explained by the Memphis District in that soil types varied greatly within the very large total project area. The flood protection component of the total project used dryland soybean yields of 30 bushels per acre. The soil type in the flood protection component is

more of a sandy-silty complex typically found in overflow areas that is more suitable for growing dryland crops. The clay soils of the prairie found in the irrigation component of the total project is not as suitable for dryland crops. The average of the two areas is very close to the 26 bushel average calculated by Headquarters. Because of this along with more conversations with area residents and NRCS experts, it was felt that 22.5 bushels was a reasonable yield estimate for the irrigation component. However, in order to be conservative and address the Headquarters comment, it was decided to use 26 bushels per acre as the dryland soybean yield level.

## WITHOUT-PROJECT CONDITIONS

a. Crop Budgets. Current crop budgets were developed for the Sparta and Alluvial aquifers, surface water, conservation and dryland practices. These budgets were developed using University of Arkansas Extension Service crop budgets for the eastern Arkansas area as a base. They were revised using NRCS irrigation data to reflect project area specific irrigation practices/costs. These budgets are presented in Tables 1 through 5. The Sparta budget data presented in Table 1 indicates that only baitfish production is profitable. However, it should be noted that the local cash market price ($9.00/cwt range) is much higher than the current normalized price of $5.34 per cwt that is mandated for use by the Corps. At the market price level irrigating from the Sparta aquifer may be profitable until groundwater depths decline further making pumping unprofitable.

**Table 1**
**Crop Data for Irrigated Practices**
**Using Sparta Aquifer as the Irrigation Source**
**Bayou Meto, Arkansas**
**(October 2005 Price Levels)**

| Item | Unit | Price 1/ | Yield | Gross Revenues | Production Cost 2/ | Net Return |
|---|---|---|---|---|---|---|
| | | ($) | | ($) | ($) | ($) |
| Soybeans | bu. | 5.33 | 48 | 255.84 | 332.89 | -77.05 |
| Rice | cwt. | 5.34 | 72 | 384.48 | 415.42 | -30.94 |
| Double-Crop | | | | 360.82 | 365.84 | -5.02 |
| Soybeans | bu. | 5.33 | 41 | | | |
| Wheat | bu. | 2.56 | 56 | | | |
| Cotton | | | | 547.68 | 602.63 | -54.95 |
| Lint | lb. | 0.467 | 1,000 | | | |
| Seed | ton | 91.68 | 0.88 | | | |
| Corn | bu. | 2.13 | 175 | 372.75 | 502.94 | -130.19 |
| Grain Sorghum | cwt. | 3.68 | 64 | 235.52 | 327.81 | -92.29 |
| Baitfish | lb. | 2.75 | 450 | 1,237.50 | 1,123.81 | 113.69 |

1/ FY 2005 Current Normalized Prices.
2/ Excludes charges for land and management, 2006 crop budgets from University of Arkansas Extension Service revised for project area irrigation practices.

**Table 2**
**Crop Data for Irrigated Practices**
**Using Alluvail Aquifer as the Irrigation Source**
**Bayou Meto, Arkansas**
**(October 2005 Price Levels)**

| Item | Unit | Price 1/ | Yield | Gross Revenues | Production Cost 2/ | Net Return |
|---|---|---|---|---|---|---|
| | | ($) | | ($) | ($) | ($) |
| Soybeans | bu. | 5.33 | 48 | 255.84 | 249.86 | 5.98 |
| Rice | cwt. | 5.34 | 72 | 384.48 | 304.94 | 79.54 |
| Double-Crop | | | | 360.82 | 297.00 | 63.82 |
| Soybeans | bu. | 5.33 | 41 | | | |
| Wheat | bu. | 2.56 | 56 | | | |
| Cotton | | | | 547.68 | 519.43 | 28.25 |
| Lint | lb. | 0.467 | 1,000 | | | |
| Seed | ton | 91.68 | 0.88 | | | |
| Corn | bu. | 2.13 | 175 | 372.75 | 408.97 | -36.22 |
| Grain Sorghum | cwt. | 3.68 | 64 | 235.52 | 248.09 | -12.57 |
| Baitfish | lb. | 2.75 | 450 | 1,237.50 | 922.19 | 315.31 |

1/ FY 2005 Current Normalized Prices.
2/ Excludes charges for land and management, 2006 crop budgets from University of Arkansas Extension Service revised for project area irrigation practices.

**Table 3**
**Crop Data for Irrigated Practices**
**Using Surface Water as the Irrigation Source**
**Bayou Meto, Arkansas**
**(October 2005 Price Levels)**

| Item | Unit | Price 1/ | Yield | Gross Revenues | Production Cost 2/ | Net Return |
|---|---|---|---|---|---|---|
| | | ($) | | ($) | ($) | ($) |
| Soybeans | bu. | 5.33 | 48 | 255.84 | 230.56 | 25.28 |
| Rice | cwt. | 5.34 | 72 | 384.48 | 276.85 | 107.63 |
| Double-Crop | | | | 360.82 | 282.00 | 78.82 |
| Soybeans | bu. | 5.33 | 41 | | | |
| Wheat | bu. | 2.56 | 56 | | | |
| Cotton | | | | 547.68 | 500.13 | 47.55 |
| Lint | lb. | 0.467 | 1,000 | | | |
| Seed | ton | 91.68 | 0.88 | | | |
| Corn | bu. | 2.13 | 175 | 372.75 | 386.66 | -13.91 |
| Grain Sorghum | cwt. | 3.68 | 64 | 235.52 | 229.90 | 5.62 |

1/ FY 2005 Current Normalized Prices.
2/ Excludes charges for land and management, 2006 crop budgets from University of Arkansas Extension Service revised for project area irrigation practices.

**Table 4**
**Crop Data for Irrigated Practices**
**Conservation Practices**
**Bayou Meto, Arkansas**
**(October 2005 Price Levels)**

| Item | Unit | Price 1/ | Yield | Gross Revenues | Production Cost 2/ | Net Return |
|---|---|---|---|---|---|---|
| | | ($) | | ($) | ($) | ($) |
| Soybeans | bu. | 5.33 | 48 | 255.84 | 219.31 | 36.53 |
| Rice | cwt. | 5.34 | 72 | 384.48 | 260.48 | 124.00 |
| Double-Crop | | | | 360.82 | 273.25 | 87.57 |
| Soybeans | bu. | 5.33 | 41 | | | |
| Wheat | bu. | 2.56 | 56 | | | |
| Cotton | | | | 547.68 | 488.88 | 58.80 |
| Lint | lb. | 0.467 | 1,000 | | | |
| Seed | ton | 91.68 | 0.88 | | | |
| Corn | bu. | 2.13 | 175 | 372.75 | 373.65 | -0.90 |
| Grain Sorghum | cwt. | 3.68 | 64 | 235.52 | 219.30 | 16.22 |

1/ FY 2005 Current Normalized Prices.
2/ Excludes charges for land and management, 2006 crop budgets from University of Arkansas Extension Service revised for project area irrigation practices.

**Table 5**
**Crop Data for Dryland Crops**
**Bayou Meto, Arkansas**
**(October 2005 Price Levels)**

| Item | Unit | Price | Price 1/ | Gross Revenues | Production Cost 2/ | Net Return |
|---|---|---|---|---|---|---|
| | | ($) | | ($) | ($) | ($) |
| Soybeans | bu. | 5.33 | 26 | 138.58 | 159.89 | -21.31 |
| Double-Crop | | | | 249.96 | 315.26 | -65.30 |
| Soybeans | bu. | 5.33 | 20 | | | |
| Wheat | bu. | 2.56 | 56 | | | |
| Cotton | | | | 397.07 | 478.64 | -81.57 |
| Lint | lb. | 0.467 | 725 | | | |
| Seed | ton | 91.68 | 0.638 | | | |
| Corn | bu. | 2.13 | 110 | 234.30 | 335.30 | -101.00 |
| Grain Sorghum | cwt. | 3.68 | 43 | 158.24 | 196.79 | -38.55 |

1/ FY 2005 Current Normalized Prices.
2/ Excludes charges for land and management, 2006 crop budgets from University of Arkansas Extension Service.

b. Irrigation Water Sources. The without-project estimates for the Alluvial aquifer are based on detailed USGS studies. The methodology used to apply these studies to the smaller project specific area is outlined in Appendix E. This methodology remains unchanged. The without-project estimates for surface water capture and on-farm storage reservoir use also remains unchanged. It is based on detailed NRCS modeling of individual farms located within the project area. This result of this process is presented in the NRCS appendix.

The primary change in without-project water sources is the inclusion of the Sparta aquifer as a viable groundwater source. Initially this aquifer was not included in the without-project analysis because it was not considered to be a long-term water source from either a physical or an economic standpoint. It does not have the yield to replace the lost alluvial groundwater. It also is not an economic source due to its depth and the cost of pumping from it. However, some local farmers are using it as a source. This addendum reflects current and forecasted use of the Sparta aquifer.

This addendum relies heavily on data furnished by USGS, the Arkansas Natural Resources Commission, and NRCS to estimate current and future use of the Sparta aquifer. Currently there are approximately 100 Sparta wells located in the project area that serve about 20,000 acres. The Sparta aquifer is a pressurized aquifer located at a depth of about 450 feet. Since the aquifer is pressurized the wells drilled into it have water levels that are less than 450 feet deep. The average is in excess of 200 feet. As the aquifer is pumped, the pressure will lessen and the pumping depth will

increase. When all pressure is relieved and water depths reach the top of the aquifer, permanent damage will occur in the aquifer. Historical trends show that these wells are being drilled at a rate of 10 to 20 per year. Studies indicate that if current trends continue the Sparta aquifer will be depleted or highly damaged by 2027.

Current Sparta use is estimated at approximately 51,000 acre-feet annually. This is well above the safe yield mark that is estimated at 31,000 acre-feet. Anything above the safe yield mark causes the level in the aquifer to decline. NRCS has estimated that farmers can viably use the Sparta at less than 300 feet in depth. This point is forecast to be reached by 2012 when approximately 32,000 acres will be irrigated by Sparta wells. At this point it is expected that future drilling into the Sparta will cease. However the farmers will attempt to maintain these well as long as they are functional. After 2012 irrigation from the Sparta is expected to decline as the aquifer depth becomes greater and greater. For the purpose of this analysis it was assumed that withdrawals will decline after the year 2012 and Sparta pumping will cease by 2027. Two factors will limit long term Sparta use: (1) the forecast of 2027 as the point of depletion, a physical limitation and (2) the extreme depth and cost of pumping from the Sparta will force farmers into bankruptcy if this trend continues. Table 6 and Figure 1 illustrate the future water use forecasts.

c. Acres of Irrigated and Dryland Crops. Irrigated and dryland acreage forecasts are presented in Table 7. Irrigation is forecast to decline from a high of 290,061 acres in 2000 to 59,526 acres in 2049. The majority of the dryland crops is expected to be soybeans. This forecast is backed-up by historical trends in irrigation. Irrigated acreage in Lonoke and Jefferson counties (the two counties containing most of the project area) has decreased by 31,460 and 16,326 acres respectively between the years 1997 and 2002. This data is taken from USDA NASS data that is published every 5 years. More recent data will not be available until after the 2007 crop year. However, a review of satellite imaging of the project area counties by NRCS has shown that irrigation has continued to decrease for the years 2003, 2004, and 2005.

**Table 6**
**Present and Projected Irrigation Water Sources**
**Without-Project Conditions**
**Bayou Meto, Arkansas**

| | 2000 | 2006 | 2009 | 2012 | 2019 | 2027 | 2029 | 2039 | 2049 | 2062 |
|---|---|---|---|---|---|---|---|---|---|---|
| Alluvial Aquifer | 598,573 | 454,436 | 382,367 | 308,762 | 137,017 | 119,545 | 115,177 | 82,259 | 59,216 | 59,216 |
| Sparta Aquifer | 0 | 50,647 | 65,000 | 75,970 | 40,517 | 0 | 0 | 0 | 0 | 0 |
| Storage plus Tailwater Recovery | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 |
| Total Sources | 678,624 | 585,134 | 527,418 | 464,783 | 257,585 | 199,596 | 195,228 | 162,310 | 139,267 | 139,267 |

**Figure 1**
**Without Project Water Sources**
**Bayou Meto IPA**

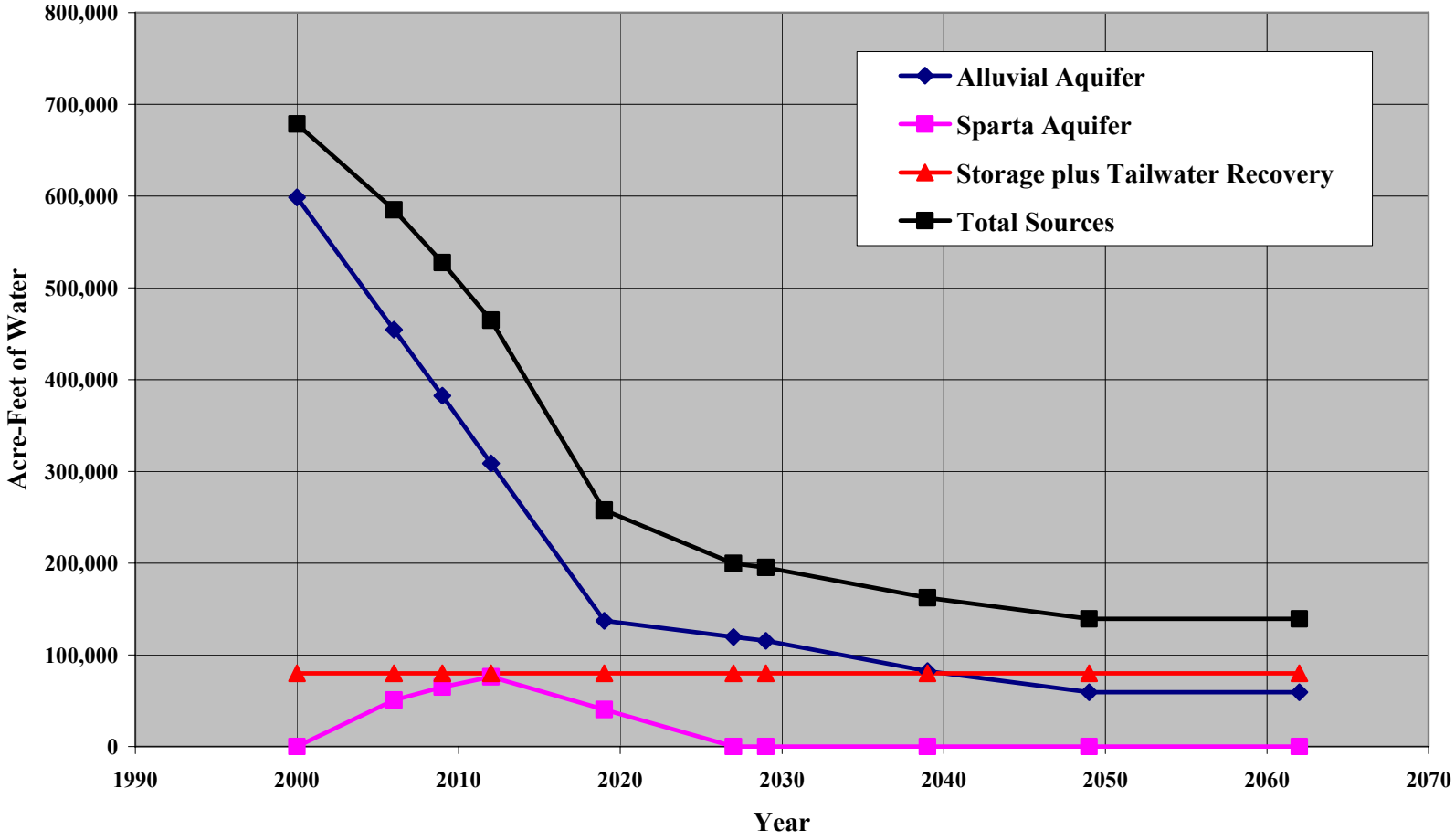
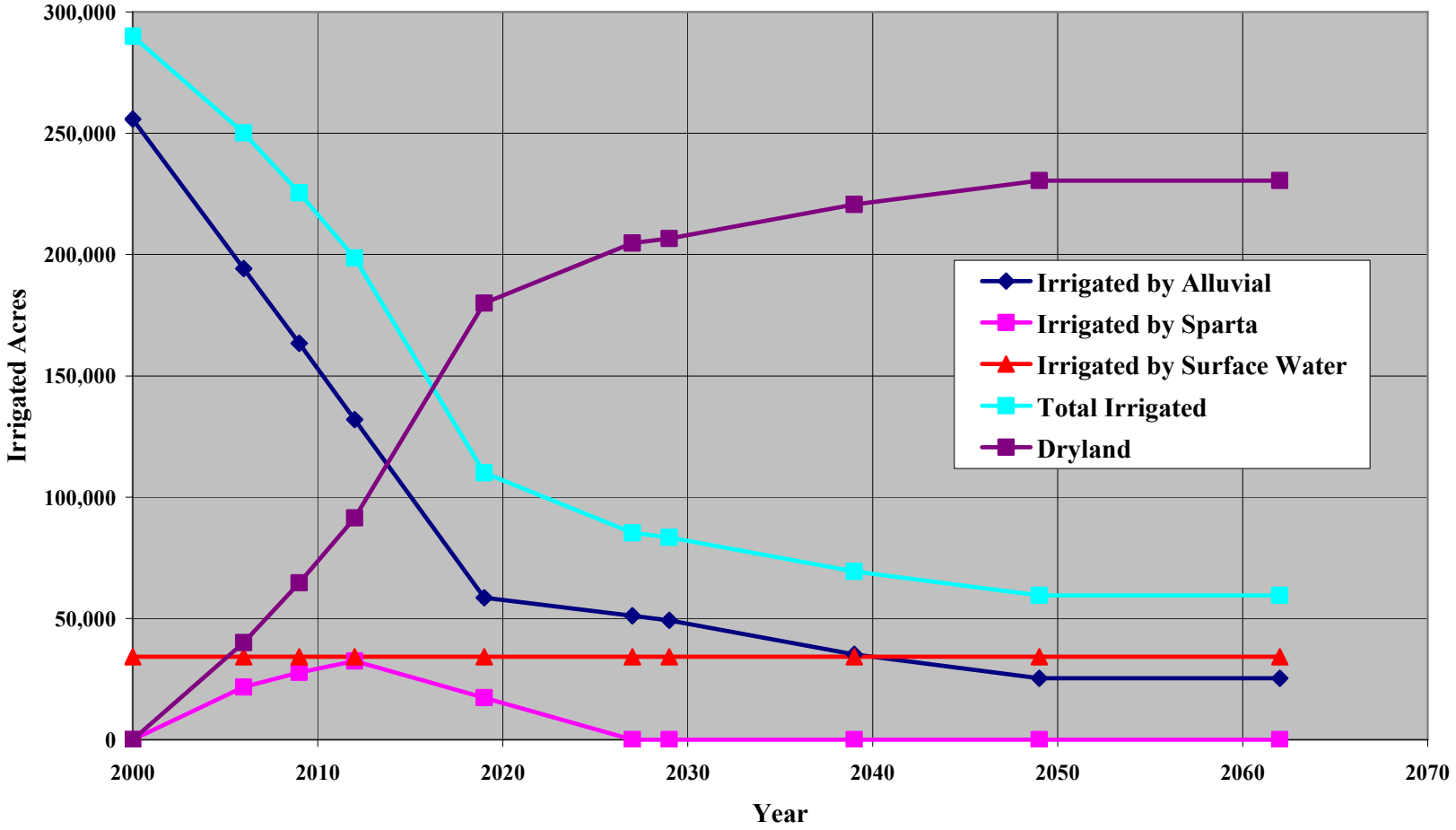


**Table 7**
**Present and Projected Irrigated and Dryland Acreage**
**Without-Project Conditions**
**Bayou Meto, Arkansas**

| Item | 2000 | 2006 | 2009 | 2012 | 2019 | 2027 | 2029 | 2039 | 2049 | 2062 |
|---|---|---|---|---|---|---|---|---|---|---|
| Irrigated by Alluvial | 255,845 | 194,237 | 163,433 | 131,973 | 58,564 | 51,097 | 49,230 | 35,160 | 25,310 | 25,310 |
| Irrigated by Sparta | 0 | 21,648 | 27,783 | 32,471 | 17,318 | 0 | 0 | 0 | 0 | 0 |
| Irrigated by Surface Water | 34,216 | 34,216 | 34,216 | 34,216 | 34,216 | 34,216 | 34,216 | 34,216 | 34,216 | 34,216 |
| Total Irrigated | 290,061 | 250,101 | 225,432 | 198,660 | 110,098 | 85,313 | 83,446 | 69,376 | 59,526 | 59,526 |
| Dryland | 0 | 39,960 | 64,629 | 91,401 | 179,963 | 204,748 | 206,615 | 220,685 | 230,535 | 230,535 |
| Total | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 |

**Figure 2**
**Without Project Irrigated Acreage**
**Bayou Meto IPA**



**WITH-PROJECT CONDITIONS**

a. Crop Budgets. The crop budgets presented in Tables 1 through 5 are also used for with-project conditions.

b. Irrigation Water Sources. The projected irrigation water sources are presented in Table 8. The import, conservation, existing surface water, and alluvial aquifer projections are the same as those presented in Appendix E. Additionally the basis of the with-project conservation figures is presented in the NRCS appendix. The primary difference again is the Sparta aquifer. Existing State of Arkansas law allows the State to regulate groundwater when an alternative surface water source is provided. When the project begins to provide supplemental surface water to the project area, the State is expected to begin regulating the Sparta aquifer. As a minimum, new well drilling will not be allowed. Also existing Sparta usage is expected to drastically decline since the with-project water will be much cheaper than Sparta water.

c. Acres of Irrigated and Dryland Crops. Under with-project conditions, 277,474 acres of the original 290,061 acres are expected to remain in irrigation for an average year. Only 12,587 acres are expected to be converted to dryland practices. This data is presented in Table 9.

**Table 8**
**Present and Projected Irrigation Water Sources**
**With-Project Conditions**
**Selected Plan -- WS4B**
**Bayou Meto, Arkansas**

| Item | 2000 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2019 | 2027 | 2029 | 2039 | 2049 | 2062 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alluvial Aquifer | 598,573 | 454,436 | 430,413 | 406,390 | 382,367 | 347,272 | 312,177 | 312,176 | 148,565 | 148,565 | 148,565 | 148,565 | 148,565 | 148,565 | 148,565 |
| Sparta Aquifer | 0 | 50,647 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage plus Tailwater Recovery | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 |
| With Project Import | 0 | 0 | 0 | 0 | 0 | 0 | 189,451 | 189,451 | 323,613 | 323,613 | 323,613 | 323,613 | 323,613 | 323,613 | 323,613 |
| With Project Conservation | 0 | 0 | 19,389 | 38,778 | 58,168 | 77,557 | 96,946 | 96,946 | 96,946 | 96,946 | 96,946 | 96,946 | 96,946 | 96,946 | 96,946 |
| Total Sources | 678,624 | 585,134 | 529,853 | 525,219 | 520,586 | 504,880 | 678,625 | 678,624 | 649,175 | 649,175 | 649,175 | 649,175 | 649,175 | 649,175 | 649,175 |

# Table 9
# Present and Projected Irrigated and Dryland Acreage
# With-Project Conditions
# Selected Plan -- WS4B
# Bayou Meto, Arkansas

| Item | 2000 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2019 | 2027 | 2029 | 2039 | 2049 | 2062 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Irrigated by Alluvial | 255,845 | 194,237 | 183,969 | 173,701 | 163,433 | 148,433 | 133,432 | 133,432 | 63,500 | 63,500 | 63,500 | 63,500 | 63,500 | 63,500 | 63,500 |
| Irrigated by Sparta | 0 | 21,648 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Irrigated by Existing Surface Water | 34,216 | 34,216 | 34,216 | 34,216 | 34,216 | 34,216 | 34,216 | 34,216 | 34,216 | 34,216 | 34,216 | 34,216 | 34,216 | 34,216 | 34,216 |
| With Project Surface Water | 0 | 0 | 0 | 0 | 0 | 0 | 80,976 | 80,976 | 138,320 | 138,320 | 138,320 | 138,320 | 138,320 | 138,320 | 138,320 |
| With Project Conservation | 0 | 0 | 8,287 | 16,575 | 24,862 | 33,150 | 41,437 | 41,437 | 41,437 | 41,437 | 41,437 | 41,437 | 41,437 | 41,437 | 41,437 |
| Total Irrigated | 290,061 | 250,101 | 226,473 | 224,492 | 222,511 | 215,798 | 290,061 | 290,061 | 277,474 | 277,474 | 277,474 | 277,474 | 277,474 | 277,474 | 277,474 |
| Dryland | 0 | 39,960 | 63,588 | 65,569 | 67,550 | 74,263 | 0 | 0 | 12,587 | 12,587 | 12,587 | 12,587 | 12,587 | 12,587 | 12,587 |
| Total | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 |

## BENEFITS.

All project benefits are based on current (2005) price levels, estimated over a 50-year period of analysis plus the installation period, and discounted to the end of the project installation period using the current Federal discount rate of 5.125%. The project benefits consist solely of irrigation benefits. Irrigation benefits consist of the difference between with- and without-project revenue streams. They are comprised of the increased crop production of maintaining irrigation practices versus dryland practices and any efficiencies or cost savings of using surface water in place of groundwater. The following sections present the methodologies used to calculate each of the benefit categories in this analysis.

a. Economic Projections. The methodology to project future yield levels under without- and with-project conditions is different than the methodology used in prior Memphis District studies. This study is a very large and complex study that was conducted by two Corps of Engineers districts, Memphis and Vicksburg. Memphis District conducted the irrigation water study while Vicksburg District conducted the flood protection study. The two districts employ somewhat different methods to estimate future conditions. It was decided for consistency purposes that the same method should be used by both Districts. The projection factors used in this analysis are presented in Table 10. A detailed description of how these factors were derived can be found in Appendix F prepared by the Vicksburg District.

This methodology was reviewed by Agricultural Economists from the University of Arkansas, Louisiana State University, and Mississippi State University to determine if it yielded reasonable results. All of the Agricultural Economists view that the results of the process are indeed reasonable. In fact, the Agricultural Economist from the University of Arkansas felt that the process may have yielded low or conservative results. The letters provided by the three above are attached to this addendum.

Production inputs per acre when adjusted for inflation have increased at a much lower "real" rate than crop yields. Production inputs per acre are based on output indices published by the Economic Research Service of the U.S. Department of Agriculture. This methodology is the same as the methodology presented in the initial submission for Headquarters review. This methodology has already undergone District and Division level technical review. These projection factors are also presented in Table 10.

With yield increases projected much higher than production input increases, it would appear on the surface that agriculture has a very bright and profitable outlook. The farmers do retain some of this increased profitability and are able to stay in production. However, most of this effect is captured by the market and results in lower commodity prices when adjusted for inflation.

**Table 10**
**Projection Factors**
**Bayou Meto, Arkansas**

| Year | Crop Yield Projection Factor | Production Input Projection Factor |
|---|---|---|
| 2000 | 1.00000 | 1.0000 |
| 2006 | 1.00000 | 1.0000 |
| 2007 | 1.01410 | 1.0082 |
| 2008 | 1.02820 | 1.0164 |
| 2009 | 1.04230 | 1.0246 |
| 2010 | 1.05640 | 1.0328 |
| 2011 | 1.07050 | 1.0410 |
| 2012 | 1.08460 | 1.0492 |
| 2013 | 1.09870 | 1.0574 |
| 2019 | 1.18330 | 1.1066 |
| 2027 | 1.29610 | 1.1721 |
| 2029 | 1.32430 | 1.1885 |
| 2039 | 1.46530 | 1.2705 |
| 2049 | 1.60630 | 1.3525 |
| 2062 | 1.78960 | 1.4590 |

b. Benefit Streams. The irrigation benefits were derived from maintaining as high a level of irrigation practices as possible and from lower irrigation costs due to reduced pumping costs as surface water is substituted for groundwater. Without the project, the aquifer is expected be depleted to such a point that a large portion of the presently irrigated crops will shift to dryland practices. As the groundwater available without the project declines, the irrigated acres will shift to dryland crops. With the project, import water is provided to replace the lost groundwater. This allows irrigation practices to continue to the level at which the import sources can sustain. Irrigation benefits are the difference in total net revenues between the with- and without-project conditions. Total revenues for Alternative WS4B and without-project conditions and project benefits during the project implementation period and by decade throughout the period of analysis are presented in Table 11. The benefits begin in 2007 as conservation measures and on-farm storage reservoirs are constructed. Average annual equivalent revenues and benefits are also presented in Table 11. Benefits under traditional methods are estimated at $45.9 million.

**Table 11**
**Without- and With Project Revenue Streams**
**Selected Plan -- WS4B**
**Bayou Meto, Arkansas**
**October 2005 Price Levels, 5.125% Discount Rate 1/**

| N | Year | Without-Project | With-Project | Benefit | Present Value Factor | PV Benefit |
|---|---|---|---|---|---|---|
| -5 | 2007 | 5,445,567 | 14,329,096 | 8,883,529 | 1.28390 | 11,405,563 |
| -4 | 2008 | 5,477,411 | 15,836,489 | 10,359,079 | 1.22130 | 12,651,543 |
| -3 | 2009 | 5,509,255 | 17,355,069 | 11,845,814 | 1.16176 | 13,761,993 |
| -2 | 2010 | 5,397,803 | 18,445,378 | 13,047,575 | 1.10513 | 14,419,267 |
| -1 | 2011 | 5,286,351 | 28,810,701 | 23,524,350 | 1.05125 | 24,729,973 |
| 0 | 2012 | 5,174,899 | 29,726,592 | 24,551,693 | 1.00000 | 24,551,693 |
| 1 | 2013 | 4,827,936 | 30,996,029 | 26,168,093 | 0.95125 | 24,892,398 |
| 7 | 2019 | 2,746,157 | 36,529,226 | 33,783,069 | 0.70479 | 23,809,969 |
| 15 | 2027 | 4,721,463 | 43,923,111 | 39,201,648 | 0.47251 | 18,523,171 |
| 17 | 2029 | 4,641,313 | 45,774,491 | 41,133,178 | 0.42756 | 17,586,902 |
| 27 | 2039 | 5,936,167 | 55,048,845 | 49,112,678 | 0.25938 | 12,738,846 |
| 37 | 2049 | 6,455,121 | 64,352,287 | 57,897,167 | 0.15735 | 9,110,119 |
| 50 | 2062 | 7,723,099 | 76,490,249 | 68,767,150 | 0.08217 | 5,650,597 |

| | |
|---|---|
| Total Present Value | 822,147,104 |
| Amortization Factor 5.125%, 50 Years | 0.05584 |
| Annual Benefit | 45,908,694 |
| Rounded Use | 45,909,000 |

1/ FY 2005 Current Normalized Prices.

## COSTS.

The project costs like the annual benefits are based on current (2005) price levels, estimated over a 50-year period of analysis plus the installation period, and discounted to the end of the project installation period using the current Federal discount rate of 5.125%. The annual costs consist of interest, sinking fund, operation, maintenance, and replacement charges.

a. First Costs. Project costs for the off-farm component total $332,521,000 and are presented in Table 12. This cost includes the excavation of the canals plus the structures necessary to carry the water underneath existing roads and streams where necessary. Also included are the costs for the pumping plant, relocations, lands and damages, diversion structures, cultural resources, mitigation, contingencies, engineering and design, and construction management. Total project costs for the on-farm component are $70,388,000 (Table 12). The largest component of these costs is for the storage reservoirs which account for approximately 37% of the on-farm cost. The remaining on-farm costs are for pipelines, pumps, water control structures, tailwater recovery system, and technical assistance. All costs are based on October 2005 price levels and are assumed to be end of year expenditures.

b. Annual Interest and Sinking Fund Costs. The annual interest and sinking fund costs for both the off-farm and the on-farm components are presented in Table 12. All annual costs are based on a reference point at the beginning of year 2012, the current discount rate of 5.125 percent, and a 50 year period of analysis. Annual interest charges are slightly more than $24.5 million. Annual sinking fund charges are slightly less than $2.2 million.

c. Annual Operation and Maintenance Costs. Annual off-farm operation, maintenance, and replacement costs are presented in Table 13. Annual on-farm costs are presented in Table 14. Both use the beginning of 2012 as the reference point for discounting, a discount rate of 5.125 percent, and a 50-year period of analysis. Annual costs are $3,315,000 and $920,000 for the off-farm and on-farm components, respectively. Approximately 56% of the off-farm costs are for the large pumping station followed by the small pumping stations at 22%, building maintenance at 13%, structures at 5%, and canals at 4%. The annual on-farm costs include reservoirs (43%), pipelines (26%), water control structures (15%), pumps (13%), and tailwater recovery (3%). Any cost of maintaining existing on-farm development is reflected in the without- and with-project crop budgets. Including any existing costs in both the annual costs and the crop budgets would be double-counting. A detailed on-farm analysis, including costs for both existing development and with-project features, is presented in the NRCS section.

d. Total Annual Costs. Total project first costs for are $402,909,000. Annual interest charges are $24,549,000 and annual sinking fund charges are $2,199,000. Annual operation and maintenance costs are $4,235,000. Total annual costs are estimated at $30,983,000. Annual costs for all accounts are presented in Table 15.

**Table 12**
**Average Annual Equivalent Interest and Sinking Fund Costs**
**Selected Plan -- WS4B**
**Bayou Meto, Arkansas**
**(October 2005 Price Levels, 5.125% Discount Rate)**

| FY | Off-Farm Cost | On-Farm Cost | Total Cost | Present Value Factor @ 5.125% | Present Value Cost |
|---|---|---|---|---|---|
| 2005 | 24,653,936 | 7,038,831 | 31,692,767 | 1.349700 | 42,775,728 |
| 2006 | 28,071,153 | 15,837,370 | 43,908,523 | 1.283900 | 56,374,152 |
| 2007 | 96,156,004 | 15,837,370 | 111,993,374 | 1.221300 | 136,777,508 |
| 2008 | 117,640,059 | 15,837,370 | 133,477,428 | 1.161760 | 155,068,737 |
| 2009 | 31,948,866 | 15,837,370 | 47,786,236 | 1.105130 | 52,810,003 |
| 2010 | 22,426,187 | | 22,426,187 | 1.051250 | 23,575,529 |
| 2011 | 11,624,420 | | 11,624,420 | 1.000000 | 11,624,420 |
| | 332,520,625 | 70,388,309 | 402,908,934 | | 479,006,077 |
| Interest | | | | 0.05125 | 24,549,000 |
| Sinking Fund (50 Year Period of Analysis) | | | | 0.00459 | 2,199,000 |
| Total | | | | | 26,748,000 |

**Table 13**
**Average Annual Equivalent Off-Farm Operation, Maintenance, and Replacement Costs**
**Selected Plan -- WS4B**
**Bayou Meto, Arkansas**
**(October 2005 Price Levels, 5.125% Discount Rate)**

| Fiscal Year | Number of Years Discounted | Large Pumping Station | Small Pumping Stations | Structures | Canals | Building | Total | Present Value Factor @ 5.125% | Present Value of Total |
|---|---|---|---|---|---|---|---|---|---|
| 2010 | -1 | 1,074,781 | 330,437 | 76,576 | 33,300 | 409,249 | 1,924,343 | 1.051250 | 2,022,966 |
| 2011 | 0 | 1,074,781 | 495,656 | 114,864 | 33,300 | 409,249 | 2,127,850 | 1.000000 | 2,127,850 |
| 2012 | 1 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.951250 | 2,886,947 |
| 2013 | 2 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.904870 | 2,746,188 |
| 2014 | 3 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.860760 | 2,612,319 |
| 2015 | 4 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.818800 | 2,484,975 |
| 2016 | 5 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.778880 | 2,363,822 |
| 2017 | 6 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.740910 | 2,248,587 |
| 2018 | 7 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.704790 | 2,138,966 |
| 2019 | 8 | 1,745,023 | 694,696 | 237,402 | 66,600 | 409,249 | 3,152,970 | 0.670430 | 2,113,846 |
| 2020 | 9 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.637740 | 1,935,476 |
| 2021 | 10 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.606650 | 1,841,121 |
| 2022 | 11 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.577080 | 1,751,379 |
| 2023 | 12 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.548940 | 1,665,977 |
| 2024 | 13 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.522180 | 1,584,763 |
| 2025 | 14 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.496720 | 1,507,495 |
| 2026 | 15 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.472510 | 1,434,020 |
| 2027 | 16 | 1,745,023 | 694,696 | 237,402 | 66,600 | 409,249 | 3,152,970 | 0.449470 | 1,417,166 |
| 2028 | 17 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.427560 | 1,297,601 |
| 2029 | 18 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.406720 | 1,234,354 |
| 2030 | 19 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.386890 | 1,174,172 |
| 2031 | 20 | 1,745,023 | 660,874 | 153,152 | 1,171,600 | 409,249 | 4,139,898 | 0.368030 | 1,523,607 |
| 2032 | 21 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.350090 | 1,062,488 |
| 2033 | 22 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.333020 | 1,010,682 |
| 2034 | 23 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.316780 | 961,395 |
| 2035 | 24 | 1,745,023 | 694,696 | 237,402 | 66,600 | 409,249 | 3,152,970 | 0.301340 | 950,116 |
| 2036 | 25 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.286650 | 869,954 |
| 2037 | 26 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.272670 | 827,526 |
| 2038 | 27 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.259380 | 787,192 |
| 2039 | 28 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.246740 | 748,831 |
| 2040 | 29 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.234710 | 712,321 |
| 2041 | 30 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.223260 | 677,571 |
| 2042 | 31 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.212380 | 644,552 |
| 2043 | 32 | 1,745,023 | 694,696 | 237,402 | 66,600 | 409,249 | 3,152,970 | 0.202030 | 636,995 |
| 2044 | 33 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.192180 | 583,247 |
| 2045 | 34 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.182810 | 554,810 |
| 2046 | 35 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.173900 | 527,769 |
| 2047 | 36 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.165420 | 502,033 |
| 2048 | 37 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.157350 | 477,541 |
| 2049 | 38 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.149680 | 454,264 |
| 2050 | 39 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.142390 | 432,139 |
| 2051 | 40 | 1,745,023 | 694,696 | 237,402 | 1,171,600 | 409,249 | 4,257,970 | 0.135440 | 576,699 |
| 2052 | 41 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.128840 | 391,016 |
| 2053 | 42 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.122560 | 371,957 |
| 2054 | 43 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.116580 | 353,808 |
| 2055 | 44 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.110900 | 336,570 |
| 2056 | 45 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.105490 | 320,151 |
| 2057 | 46 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.100350 | 304,552 |
| 2058 | 47 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.095460 | 289,711 |
| 2059 | 48 | 1,745,023 | 694,696 | 237,402 | 66,600 | 409,249 | 3,152,970 | 0.090810 | 286,321 |
| 2060 | 49 | 1,745,023 | 660,874 | 153,152 | 66,600 | 409,249 | 3,034,898 | 0.086380 | 262,155 |
| 2061 | 50 | 1,745,023 | 1,107,936 | 548,189 | 66,600 | 680,681 | 4,148,429 | 0.082170 | 340,876 |
| | | 89,400,712 | 34,519,795 | 8,749,585 | 5,606,600 | 21,552,380 | 159,829,072 | | 59,368,839 |
| | Total Annual Cost (50 Year Period of Analysis) | | | | | | | 0.05584 | 3,315,000 |

**Table 14**
**Average Annual Equivalent On-Farm Operation, Maintenance, and Replacement Costs**
**Selected Plan -- WS4B**
**Bayou Meto, Arkansas**
**(October 2005 Price Levels, 5.125% Discount Rate)**

| Fiscal Year | Number of Years Discounted | Reservoirs | Tail Water Recovery | Pipelines | Pumping Plants | Water Control Structures | Total | Present Value Factor @ 5.125% | Present Value of Total |
|---|---|---|---|---|---|---|---|---|---|
| 2006 | -5 | 26,113 | 3,637 | 15,904 | 19,878 | 9,426 | 74,959 | 1.283900 | 96,240 |
| 2007 | -4 | 84,868 | 11,819 | 51,688 | 64,605 | 30,636 | 243,616 | 1.221300 | 297,528 |
| 2008 | -3 | 143,623 | 20,002 | 87,471 | 109,332 | 51,845 | 412,273 | 1.161760 | 478,963 |
| 2009 | -2 | 202,378 | 28,185 | 123,255 | 154,058 | 73,055 | 580,930 | 1.105130 | 642,004 |
| 2010 | -1 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 1.051250 | 788,004 |
| 2011 | 0 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 1.000000 | 749,588 |
| 2012 | 1 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.951250 | 713,045 |
| 2013 | 2 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.904870 | 678,279 |
| 2014 | 3 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.860760 | 645,215 |
| 2015 | 4 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.818800 | 613,762 |
| 2016 | 5 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.778880 | 583,839 |
| 2017 | 6 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.740910 | 555,377 |
| 2018 | 7 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.704790 | 528,302 |
| 2019 | 8 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.670430 | 502,546 |
| 2020 | 9 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.637740 | 478,042 |
| 2021 | 10 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.606650 | 454,737 |
| 2022 | 11 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.577080 | 432,572 |
| 2023 | 12 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.548940 | 411,479 |
| 2024 | 13 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.522180 | 391,420 |
| 2025 | 14 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.496720 | 372,335 |
| 2026 | 15 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.472510 | 354,188 |
| 2027 | 16 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.449470 | 336,917 |
| 2028 | 17 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.427560 | 320,494 |
| 2029 | 18 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.406720 | 304,872 |
| 2030 | 19 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.386890 | 290,008 |
| 2031 | 20 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.368030 | 275,871 |
| 2032 | 21 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.350090 | 262,423 |
| 2033 | 22 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.333020 | 249,628 |
| 2034 | 23 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.316780 | 237,454 |
| 2035 | 24 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.301340 | 225,881 |
| 2036 | 25 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.286650 | 214,869 |
| 2037 | 26 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.272670 | 204,390 |
| 2038 | 27 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.259380 | 194,428 |
| 2039 | 28 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.246740 | 184,953 |
| 2040 | 29 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.234710 | 175,936 |
| 2041 | 30 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.223260 | 167,353 |
| 2042 | 31 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.212380 | 159,197 |
| 2043 | 32 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.202030 | 151,439 |
| 2044 | 33 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.192180 | 144,056 |
| 2045 | 34 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.182810 | 137,032 |
| 2046 | 35 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.173900 | 130,353 |
| 2047 | 36 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.165420 | 123,997 |
| 2048 | 37 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.157350 | 117,948 |
| 2049 | 38 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.149680 | 112,198 |
| 2050 | 39 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.142390 | 106,734 |
| 2051 | 40 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.135440 | 101,524 |
| 2052 | 41 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.128840 | 96,577 |
| 2053 | 42 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.122560 | 91,869 |
| 2054 | 43 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.116580 | 87,387 |
| 2055 | 44 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.110900 | 83,129 |
| 2056 | 45 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.105490 | 79,074 |
| 2057 | 46 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.100350 | 75,221 |
| 2058 | 47 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.095460 | 71,556 |
| 2059 | 48 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.090810 | 68,070 |
| 2060 | 49 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.086380 | 64,749 |
| 2061 | 50 | 261,133 | 36,367 | 159,039 | 198,785 | 94,264 | 749,588 | 0.082170 | 61,594 |
| | | 14,035,897 | 1,954,734 | 8,548,322 | 10,684,675 | 5,066,707 | 40,290,335 | | 16,476,646 |
| | Total Annual Cost (50 Year Period of Analysis) | | | | | | | 0.05584 | 920,000 |

## SUMMARY.

Table 15 shows that Selected Plan is economically justified after all concerns raised during review are addressed. Its annual benefits exceed annual costs by $14,927,000 yielding a benefit-to-cost ratio of 1.5 to 1.

**Table 15**
**Summary of First Costs and Average Annual Equivalent Benefits, Costs, Excess Benefits, and Benefit to Cost Ratios**
**Bayou Meto, Arkansas**
**October 2005 Price Levels, 5.125% Discount Rate**

| Item | WS4B |
|---|---|
| **First Cost** | |
| On-Farm | 70,388,000 |
| Import System | 332,521,000 |
| Total | 402,909,000 |
| **Annual Benefits** | 45,909,000 |
| **Annual Costs** | |
| Interest | 24,549,000 |
| On-Farm | 4,360,000 |
| Import System | 20,189,000 |
| Sinking Fund | 2,199,000 |
| On-Farm | 391,000 |
| Import System | 1,808,000 |
| Operation and Maintenance | 4,235,000 |
| On-Farm | 920,000 |
| Import System | 3,315,000 |
| Total | 30,983,000 |
| **Excess Benefits** | 14,927,000 |
| **BCR** | 1.5 |

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Department of
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June 28, 2006

Col. Charles O. Smithers
167 N. Main Street
Suite 590
Memphis, TN 38103

Dear Sir:

I have been requested to review the methods and results of yield projections used by the Memphis District Corps of Engineers office for the Bayou Meto project. Crop yields, used to evaluate the costs and benefits over the life of the project, are based on projection factors from the Vicksburg office. A standard linear regression technique to estimate a time trend from actual county data was used to validate the Vicksburg projection estimates. Counties within the proposed Bayou Meto project area were used. The yield data were collected and reported by the National Agricultural Statistical Service, USDA. For all crops, the Vicksburg projections are within the standard error of the estimated trend coefficient.

In my opinion this is a justifiable approach, recognizing that technological improvements in land productivity are assumed to be linear. Only one-third of estimated period used for the regression analysis includes yield results that are influenced by modern crop variety improvement and land productivity technologies such as biotechnology and precision agriculture. My concern is that the estimates may well be too low. However, for a study such as this, it is appropriate to use a more conservative approach since the timing and magnitude of continued technological improvements are not easily predicted.

What we do know is that current experimental lines of rice, soybeans, cotton and other crops have yields that already achieve the levels projected by the middle period of the of the project. The existence of this yield gap provides the scientific basis for justifying the Vicksburg projections. While no one can accurately predict the actual future of yield levels, the evidence from the experimental lines and the validation based on time trends of the past 30 years means that the crop yield projections are attainable.

Sincerely,

*Eric J. Wailes*

Eric J. Wailes, Ph.D.
L.C. Carter Endowed Professor

June 30, 2006

Re: Projected Crop Yields, Mississippi River and Tributaries, Grand Prairie Region and Bayou Meto Basin Project, Bayou Meto Basin, Arkansas

To Whom It May Concern:

Variety field trials in Arkansas, Illinois, Louisiana, and Mississippi have shown impressive yield results for conventional and irrigated soybeans, ranging from approximately 52 bushels per acre for conventional beans in the Louisiana delta to 68 bushels per acre for irrigated soybeans in the Mississippi delta. These yields were based on early season Maturity Group IV varieties.

A 2005 study completed by scientists at Mississippi State University, for the Yazoo Backwater Area of the Mississippi River Alluvial Valley, found that soybeans planted before April 16 could be expected to yield 62 bushels per acre when irrigated and 41 bushels when not irrigated. That study also documents a shift in cultural practices, beginning in the early 1990's, to plant in early April using a stale seedbed planting system. Coupled with improved early season varieties and increased use of supplemental irrigation, average yields in the study area improved significantly.

Studies conducted by the Vicksburg and Memphis offices of the Corps of Engineers used a linear regression analysis of historical value of farm products sold per acre harvested, in constant dollars, as an appropriate measure of future increases in agricultural output because of improved technology. The results of those analyses were yield estimates for soybeans approaching 50 bushels per acre for dry land soybeans and 85 plus bushels for irrigated soybeans fifty years into the future.

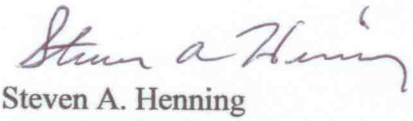
There have been significant technological advancements in soybean production over the past 50 years. The development of new soybean varieties, including applications of recent breakthroughs in genetic engineering, have improved crop yields. Changing cultural practices (planting dates, tillage systems, chemical applications, and irrigation systems) have allowed producers to reduce the risk of early planting. Earlier planting, in turn, has reduced the risks inherent with summer weather conditions in the region.

Yield improvements have not been a steady linear climb as producers adopt new technology. And year-to-year yields vary because of uncontrolled factors, particularly the weather. But a look at historical yields will show an upward "step" pattern to increased soybean yields. As research develops methods for reducing production risk and the agricultural community finds practical ways to adopt that technology, we see jumps in overall yields.

Predicting soybeans yields into the future is an uncertain proposition. In the early 1970's, few would have predicted the current possibility for 60 bushel per acre yields. But recent research and innovation has made that possible. Future research in soybean varieties, genetics, and irrigation interrelationships will very likely lead to additional gains in soybean yields. Given these different factors that will potentially influence yield gains, it does not seem unreasonable that yields for irrigated soybeans could approach 100 bushels per acre fifty years into the future in the alluvial valley of the Mississippi River.

In closing, it is my professional opinion that future soybean yields in the magnitude discussed above are reasonable and attainable.

Sincerely,



Steven A. Henning
Associate Professor
Department of Agricultural Economics & Agribusiness
Louisiana State University

References:

**2006 Soybean Variety Recommendations and Production Tips**, LSU AgCenter, Publication 2269, January, 2006.

**Agricultural Data for the Yazoo Backwater Area of Mississippi**, the Division of Agriculture, Forestry & Veterinary Medicine, Mississippi State University, December 30, 2005.

**Mississippi Soybean Production Trials – 2005**, Information Bulletin No. 425, Mississippi Agricultural and Forestry Experiment Station, Mississippi State University, January, 2006.

**Soybean Update – 2005 Soybean Performance Results for Early Soybeans Production Systems (Roundup Ready) (ESPS) in Arkansas**, Publication No. AG964, University of Arkansas, Division of Agriculture, Cooperative Extension Service.

**Soybean Variety Test Results in Illinois - 2005**, Crop Sciences Special Report 2005-04, Department of Crop Sciences, University of Illinois at Urbana-Champaign.

June 30, 2006

103 Lake Point Lane
Starkville, MS 39759

To Whom It May Concern:

Recent agricultural studies conducted by the Corps of Engineers used linear regression analysis of historical value of farm products sold per acre harvested, in constant dollars, as an appropriate measure of future increases in agricultural output because of improved technology. The results of these analyses would yield estimates of soybean yields that would approach 50 bushels per acre for dry land soybeans and 85 plus bushels for irrigated soybeans fifty years in the future.

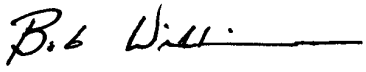
A recent study completed by Mississippi State University in the Yazoo Backwater Area of the Mississippi River Alluvial Valley indicated that in an early soybean production system, soybeans planted before April 16 could be expected to yield 62 bushels per acre when irrigated and 41 bushels when not irrigated (Heatherly: Soybean Production in the Lower Mississippi Delta).

Based on historical increases in productivity, recent development of early maturing soybean varieties, and emphasis on genetic engineering, yields for irrigated soybeans approaching 90-100 bushels per acre 50 years in the future in the alluvial valley of the Mississippi River should be considered reasonable.

No one can be certain of predictions of future conditions, but the past is one indicator of what can be expected. Also, recent development in soybean varieties support even larger increases in future yields than those experienced in the past. These significant developments in agricultural research and genetic engineering should not be considered to be limited to soybean production, but will favorably impact all aspects of the agricultural economy.

It is my professional opinion that future soybean yields in the magnitude discussed above are reasonable. This is simply my opinion, not one expressed by or associated with Mississippi State University.

Sincerely,



Dr. Bob Williams
Extension Economist - Retired

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# APPENDIX E – ECONOMICS
# AGRICULTURAL WATER SUPPLY COMPONENT

## E-1. INTRODUCTION.

The Bayou Meto Basin, Arkansas general reevaluation study area is located in east central Arkansas approximately 20 miles east of Little Rock and includes portions of Arkansas, Jefferson, Lonoke, Prairie, and Pulaski counties. The study area encompasses some 863,712 acres and is approximately 58 miles in length (north to south) and 29 miles in width (east to west). Rice, soybeans, cotton, wheat, and baitfish are the primary crops produced within the study area. Arkansas is ranked number one in rice production in the United States and produces nearly 50 percent of the national crop. The largest baitfish production facility in the world is located in the project area. Arkansas ranks first in mallard harvest in the United States. Hunting and fishing opportunities abound or are abundant on and around the Bayou Meto Wildlife Management Area (WMA), which is located at the southern end of the area. The Bayou Meto Basin is a major wintering area for waterfowl in Arkansas. This area is underlain by the Mississippi River Valley alluvial aquifer of Quaternary age, which supplies about 82 percent of all the water used in the total project area, and its primary use is agricultural irrigation.

This Appendix presents information concerning the optimization of the agricultural water supply features (pump station, canals, and storage reservoirs) of the Bayou Meto, Arkansas Project. The conservation practices were optimized by the US Department of Agriculture, Natural Resources Conservation Service (NRCS) and are presented in Appendix A of this report. The conservation practices are optimized to provide 70% efficiency of water usage meaning that only 30% of the irrigation water delivered to a field would be lost due to evaporation, infiltration, and waste. This analysis is based on supplying supplemental irrigation water to 267,982 acres of cropland and 22,079 acres of fishponds located in the above 863,712 acre study area by importing water from the Arkansas River and capturing all practical surface runoff. The import and on-farm storage features were optimized on a system-wide basis. The demands of the individual farms, unmet by surface water and existing sources, were aggregated and modeled against historical Arkansas River flows to determine the supply that could be provided by the different import system sizes

## E-2. GENERAL.

This section describes the methodology used to determine the benefits accruing to the project under existing and future conditions. The evaluation uses 2000 agricultural land use and current (2004) price levels. The agricultural land use was based on a complete survey of the area conducted by NRCS. The survey was a compilation of the historical records maintained by each county's Farm Service Agency office. It also required a projection of future with- and without-project conditions throughout the period of analysis. The price level of the benefits and costs is October 2004. The costs of individual construction items are assumed to be end of year values. The benefits associated with each item are assumed to occur 1 year after the item's cost. The

reference point for calculating present values of benefits and costs is the beginning of 2012, the first year after project completion. All costs and benefits prior to 2012 are compounded forward and all costs and benefits after 2012 are discounted backward at a discount rate of 5.375 percent. The total present values are amortized over a 50-year period of analysis to obtain average annual equivalent benefits and costs. The benefits accruing to each alternative are comprised of irrigation benefits and incidental waterfowl benefits. The waterfowl benefits are non-monetary in the form of habitat units. These benefits are presented in the Environmental Appendix.

## E-3. AREA DESCRIPTION.

The area that would benefit from project construction consists of approximately 433,000 acres located in Arkansas, Jefferson, Lonoke, Prairie, and Pulaski Counties in Arkansas. The area is predominately agricultural with scattered rural development. A total of 277,000 acres is cleared, in agricultural production and subject to irrigation in any one year. Another 22,000 acres are in baitfish ponds and for this analysis are considered irrigated. Any potential new storage reservoirs under with-project conditions will come from the soybean acreage included in the 277,000 acres of irrigated cropland.

## E-4. PLANS OF IMPROVEMENT.

The following alternatives were carried through detailed hydrologic and economic analyses. Alternative WS1 is used as the base from which to compare the effects of all other alternatives.

a. Alternative WS1 -- No Action. This alternative is the set of conditions that are expected to occur in the proposed project area in the absence of a project. This alternative is synonymous with present and future without-project conditions.

b. Alternative WS2 – Conservation with Storage. Alternative WS2 consists of additional on-farm storage and conservation measures without any import water. Conservation measures would be implemented to maximize the use of existing water sources to the extent practical. These measures are designed to increase the efficiency or usage of irrigation water. The current 60% efficiency rate would be increased to a maximum of 70% through the installation of conservation measures and storage reservoirs. Three levels of on-farm storage were considered for this alternative 5,954, 8,832, and 14,544 acres. The designation of these levels for this alternative is as follows:

- Alternative WS2A – 5,954 acres of additional storage reservoirs
- Alternative WS2B -- 8,832 acres of additional storage reservoirs
- Alternative WS2C -- 14,544 acres of additional storage reservoirs

c. Alternative WS3 – 1,650 CFS Import System Plus Conservation and Storage. This alternative consists of the conservation measures and on-farm storage reservoirs in Alternative WS2 plus a 1,650 cfs import system. The conservation measures are designed to achieve the optimum level increasing the irrigation efficiencies from 60% to a maximum of 70% for the entire project area. Import water is provided by transfer of excess water from the Arkansas River to the farms through a system of new canals, existing streams, and pipelines. On-farm storage is used to capture existing runoff and to store import water for use during peak demand periods or when other sources cannot provide the need. These three components are not independent or stand alone features. They are related and depend on each other to function properly. The above three combinations are designated as:

- Alternative WS3A – 5,954 acres of additional storage reservoirs
- Alternative WS3B -- 8,832 acres of additional storage reservoirs
- Alternative WS3C -- 14,544 acres of additional storage reservoirs

d. Alternative WS4 – 1,750 CFS Import System Plus Conservation and Storage. This alternative is identical to Alternative WS3 with the exception of using a 1,750 cfs import system instead of a 1,650 cfs system. It consists of the same combination of conservation measures and on-farm storage reservoirs as Alternative WS3. The conservation measures are set at a maximum of 70% for the project area with on-farm storage reservoirs of 5,954 acres, 8,832 acres, and 14,544 acres of new reservoirs in addition to the existing reservoirs. These combinations are designated as:

- Alternative WS4A – 5,954 acres of additional storage reservoirs
- Alternative WS4B -- 8,832 acres of additional storage reservoirs
- Alternative WS4C -- 14,544 acres of additional storage reservoirs

e. Alternative WS5 – 1,850 CFS Import System Plus Conservation and Storage. Alternative WS5 also consists of the conservation features and on-farm storage levels used in Alternatives WS3 and WS4. Alternative WS5 uses a 1,850 cfs import system in addition to the conservation features and on-farm storage reservoirs. These combinations of Alternative WS5 are designated as:

- Alternative WS5A – 5,954 acres of additional storage reservoirs
- Alternative WS5B -- 8,832 acres of additional storage reservoirs
- Alternative WS5C -- 14,544 acres of additional storage reservoirs

## E-5. WITHOUT-PROJECT CONDITIONS.

The supply of irrigation water is decreasing as the groundwater reserves are being depleted. Historical and current trends reaffirmed by well data and field observations in concert with previously discussed groundwater models make obvious the dire seriousness of groundwater depletion. The state of Arkansas recognized the urgency of protecting groundwater resources in 1998 when the area was designated as a Critical Groundwater Area. This designation sets the

groundwork where withdrawals can be limited. Withdrawals limitations under current State law can only be implemented after an alternative to groundwater pumping is provided. Currently the Grand Prairie Demonstration Project is being constructed in the neighboring Grand Prairie Area. It is the view of the State that construction of the Grand Prairie Project can also fulfill the need for a groundwater alternative for the Bayou Meto Project area. If this is the view taken by the State, then groundwater limitations can soon become a reality.

a. Present Conditions. The first step in defining present (2002) conditions was to determine existing land use. This was done in conjunction with the National Resource Conservation Service (NRCS). A GIS of the area's Farm Service Agency's records was developed consisting of data broken down to the farm tract level showing the acreage of individual crops on each tract. This data revealed that all of the tracts suitable for irrigation were currently subject to irrigation, either partially or fully. There are 276,814 acres subject to irrigation and 22,079 acres of baitfish ponds in the study area. This figure includes all acreage of planned on-farm storage reservoirs will be constructed. When comparing without- and with-project conditions, any acreage of new reservoirs was omitted from the existing soybean acreage. This omission was made in order to facilitate a direct comparison between without- and with-project conditions. Table E-1 shows the present acreages with Alternative WS4's new storage reservoirs (8,832 acres) omitted. Soybeans account for 50.4% (105,723 acres single-cropped and 40,581 acres double-cropped with wheat) of the total. Rice follows at 28.1% (81,479 acres), cotton at 12.6% (36,446 acres), baitfish at 7.6% (22,079 acres), corn at 0.8% (2,369 acres), and grain sorghum at 0.5% (1,384 acres).

Agriculture uses approximately 678,624 acre-feet of irrigation water during an average year. Groundwater accounts for 87.8% or 595,723 acre-feet of total use. The remaining 12.2% or 80,051 acre-feet come from on-farm storage reservoirs that are filled during non-crop seasons and tailwater recovery systems that reuse or recycle either in-season rain or irrigation water that has been drained from the fields.

NRCS combined the above data with the crop's daily water requirements, in-season rainfall data, and evaporation/transpiration data to conduct a water balance analysis for the period of 1940-95. The result of the analysis was an average ten day water requirement, unmet by rainfall, for each year of the period of record. Ten day periods were used since this time period corresponds to the wilting point of the crops, the point at which yield reductions occur unless supplemental water is applied. The resulting demand is the demand for water that must come from other sources such as groundwater or storage reservoirs (the demand unmet by rainfall). NRCS then compared the seasonal demand for irrigation water with the seasonal availability of rainfall, groundwater, water from storage reservoirs, and tailwater recovery, to determine the amount of irrigation water supplied from each source and determine the volume of water that must come from outside sources as groundwater is depleted. A description of the water balance analysis is presented in the NRCS portion of this report. A comparison of the yearly demand and supply data revealed that in order to meet all demands, substantial amounts of groundwater were required which resulted in significant annual depletion of the alluvial aquifer.

The final step was to estimate the net value of the area's agricultural production. This was done by developing crop practices, budgets, and yields for the area from data supplied by NRCS,

University of Arkansas Extension Service, and interviews with area farmers. All data was modified to reflect local conditions when necessary. This data was applied to the number of acres of irrigated cropland and baitfish ponds in the project area resulting in the value of the area's contribution to the national economy. Table E-1 contains the data compiled for this section.

b. Future Without-Project Conditions. Under future without-project conditions the desired land use and demand for irrigation water was the same as for present conditions. The area farmers would desire to maintain irrigated cropland and baitfish ponds at 276,814 and 22,079 acres respectively. The expected water use would remain at 678,624 acre-feet if sufficient irrigation water was available. The major difference between present and future conditions is the availability of groundwater. The supply of groundwater is expected to significantly decline as the aquifer is depleted. Since a significant amount of groundwater is expected to be lost, a large acreage must shift to dryland farming practices, which results in substantially reduced agricultural production in the project area.

(1). Supply of Irrigation Water. The supply of groundwater available in the future is based on a USGS study titled "RECALIBRATION OF A GROUND-WATER FLOW MODEL OF THE MISSISSIPPI RIVER VALLE ALLUVIAL AQUIFER OF NORTHEASTERN ARKANSAS, 1918-1998, WITH SIMULATIONS OF WATER LEVELS CAUSED BY PROJECTED GROUND-WATER WITHDRAWALS THROUGH 2049" by T.B. Reed U.S. Geological Survey, Water-Resources Investigations Report 03-4109. This report was prepared in cooperation with the Arkansas Soil and Water Conservation Commission and the U.S. Army Corps of Engineers, Memphis District. The USGS study modeled estimated dry cells by decade for the periods 2009, 2019, 2029, 2039, and 2049. (see Figures 1 through 6). The NRCS data cells were overlaid on the USGS data cells to determine the amount of crops that could be irrigated by decade. Data was developed for 92 cells. By 2009 12 cells were dry and 36 were impaired. The problem worsened greatly by 2019 with 52 dry cells and 32 impaired cells. The USGS study estimate for 2049 was 71 dry cells and 18 impaired cells.

The estimate of dry and impaired cells is based on a requirement of 20 feet of saturated thickness in the aquifer to sustain a producing well. When this study was conducted it was felt that 20 feet of saturated thickness was the minimum necessary for wells to be viable. Since the study was completed, current research has found that 20 feet probably cannot support a well. Instead, it is now felt that 30 feet of saturated thickness is required. However, this economic analysis is still based on a 20 foot requirement. This estimate is felt to be very conservative and probably understates the project's economic benefits. However, considerable uncertainty exists when trying to estimate the point at which the aquifer will become exhausted and its yield will be limited to its recharge rate. If a series of "wet" years occur with excessive rainfall, this point will be pushed farther into the future. If a series of "dry" years occur with minimal rainfall, this point could be swiftly accelerated. Using the 20 foot requirement instead of the 30 foot requirement offsets much of the risk of an occurrence of several "wet" years in a row. It also helps offset any potential of the area developing an alternative water source under future without-project conditions and helps alleviate concerns of overstating the near-term effects of depletion of the aquifer on the project area's irrigated cropping practices.

**Table E-1**
**Present (2000) Land Use**
**Irrigated Crops**
**Without-Project Condidions**
**Bayou Meto, Arkansas**
**(October 2004 Price Levels)**

| Item | Percent Dist. | Acres | Unit | Price | Yield | Gross Revenues | Production Cost 1/ | Net Return 2/ | Weighted Net Return |
|---|---|---|---|---|---|---|---|---|---|
| | | | | ($) | | ($) | ($) | ($) | ($) |
| Soybeans | 36.4% | 105,723 | bu. | 5.65 | 48 | 271.20 | 192.71 | 78.49 | 28.61 |
| Rice | 28.1% | 81,479 | cwt. | 4.16 | 72.00 | 299.52 | 287.37 | 12.15 | 3.41 |
| Double-Crop | 14.0% | 40,581 | | | | 392.92 | 277.89 | 115.03 | 16.09 |
| Soybeans | | | bu. | 5.65 | 41 | | | | |
| Wheat | | | bu. | 2.90 | 56 | | | | |
| Cotton | 12.6% | 36,446 | | | | 527.84 | 340.19 | 187.65 | 23.58 |
| Lint | | | lb. | 0.446 | 1,000 | | | | |
| Seed | | | ton | 93.00 | 0.8800 | | | | |
| Corn | 0.8% | 2,369 | bu. | 2.43 | 175 | 425.25 | 326.82 | 98.43 | 0.80 |
| Grain Sorghum | 0.5% | 1,384 | cwt. | 4.40 | 64 | 281.60 | 210.15 | 71.45 | 0.34 |
| Subtotal Crop: | 92.4% | 267,982 | | | | | | | |
| Aquaculture | 7.6% | 22,079 | lb. | 2.75 | 450 | 1,237.50 | 962.66 | 274.84 | 20.92 |
| Total | 100.0% | 290,061 | | | | | | | 93.76 |

1/ Excludes charges for Land and Management.
2/ Includes returns to Land and Management.

Figure E-1
Bayou Meto Project Area

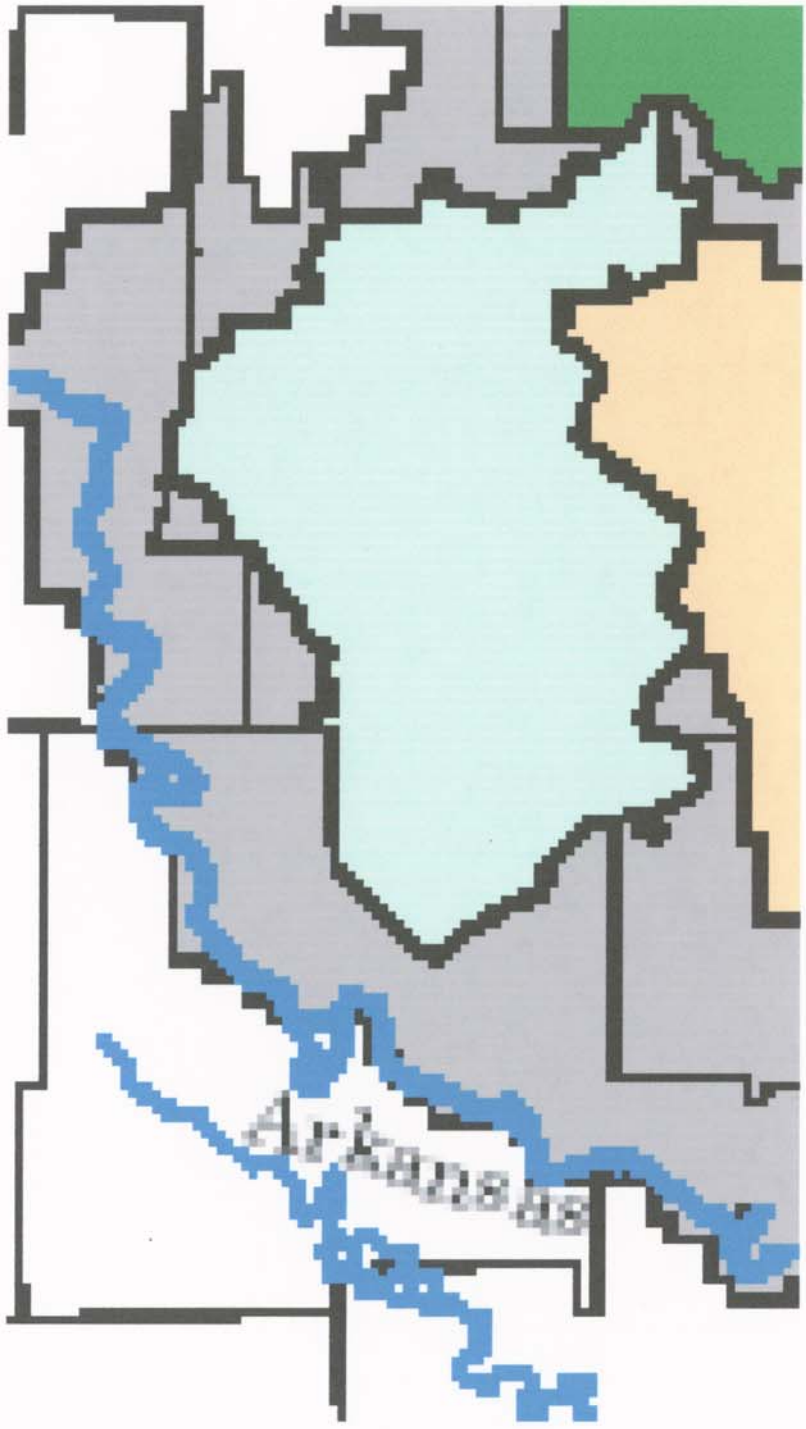
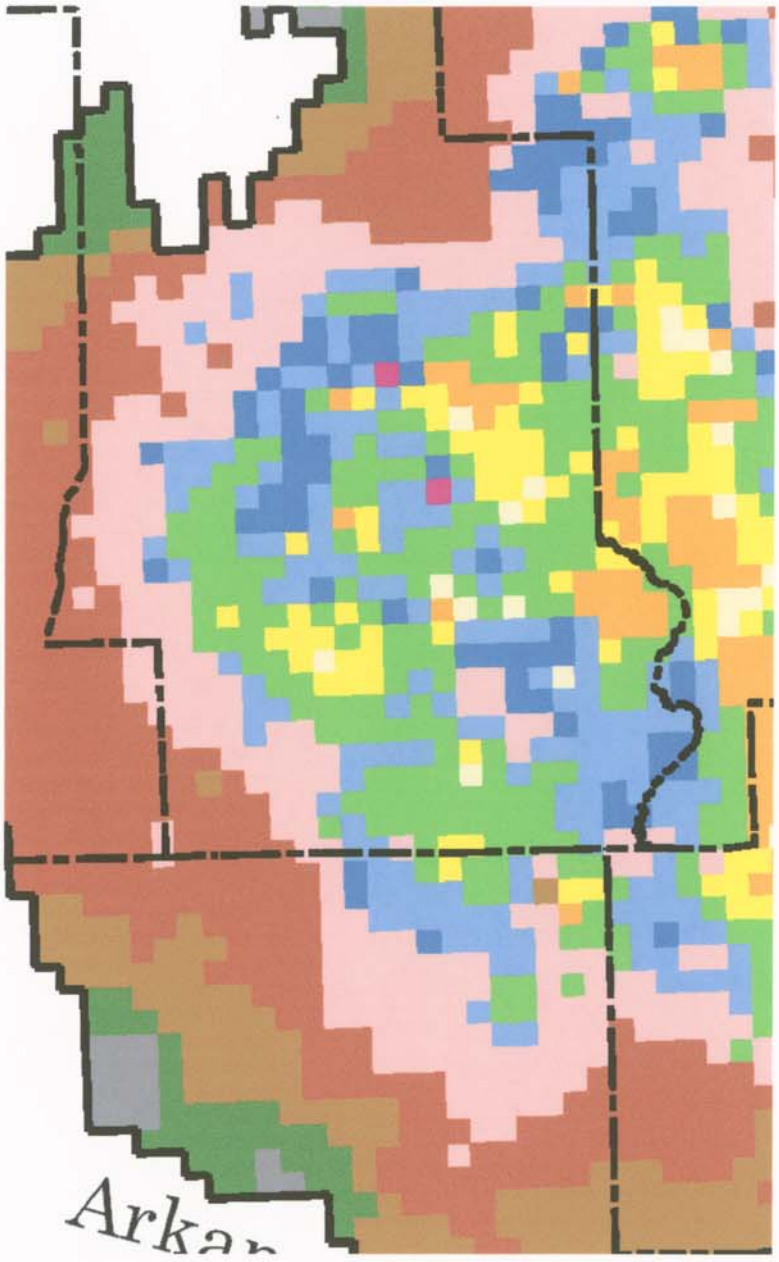
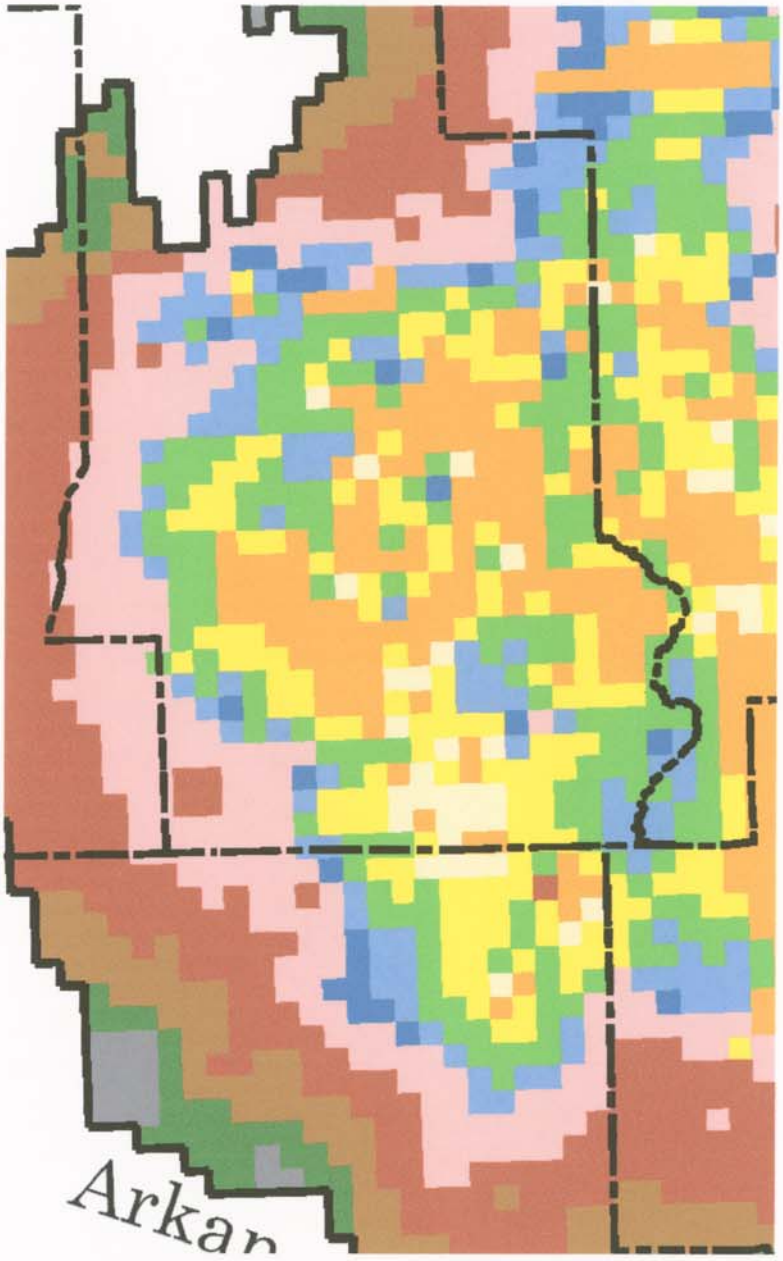


Figure E-2
Saturated Thickness of Aquifer
Bayou Meto Project Area
2009



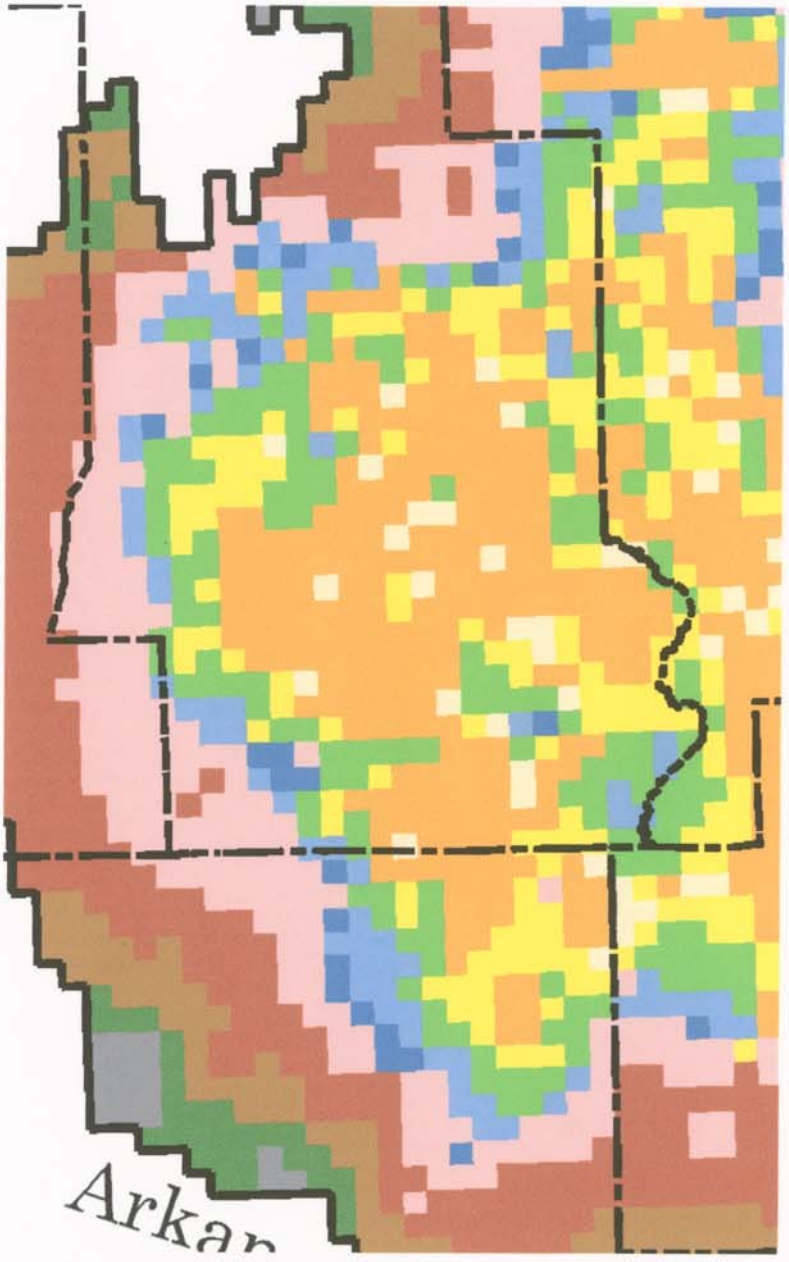

SOURCE: RECALIBRATION OF A GROUND-WATER FLOW MODEL OF THE MISSISSIPPI RIVER VALLEY ALLUVIAL AQUIFER OF NORTHEASTERN ARKANSAS, 1918-1998, WITH SIMULATIONS OF WATER LEVELS CAUSED BY PROJECTED GROUND-WATER WITHDRAWALS THROUGH 2049, By T.B. Reed, U.S. GEOLOGICAL SURVEY, Water-Resources Investigations Report 03-4109, Prepared in cooperation with the Arkansas Soil and Water Conservation Commission and the U.S. Army Corps of Engineers, Memphis District

Figure E-3
Saturated Thickness of Aquifer
Bayou Meto Project Area
2019



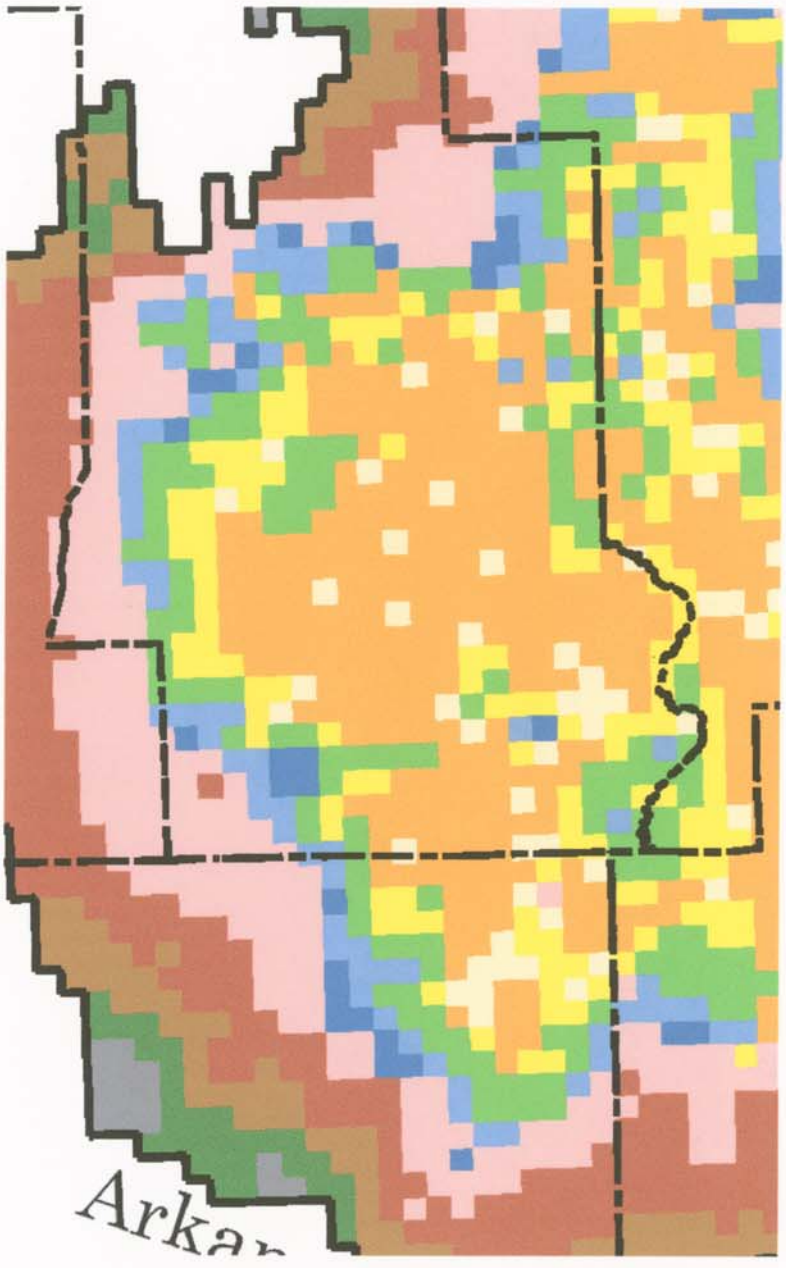

SOURCE: RECALIBRATION OF A GROUND-WATER FLOW MODEL OF THE MISSISSIPPI RIVER VALLEY ALLUVIAL AQUIFER OF NORTHEASTERN ARKANSAS, 1918-1998, WITH SIMULATIONS OF WATER LEVELS CAUSED BY PROJECTED GROUND-WATER WITHDRAWALS THROUGH 2049, By T.B. Reed, U.S. GEOLOGICAL SURVEY, Water-Resources Investigations Report 03-4109, Prepared in cooperation with the Arkansas Soil and Water Conservation Commission and the U.S. Army Corps of Engineers, Memphis District

Figure E-4
Saturated Thickness of Aquifer
Bayou Meto Project Area
2029



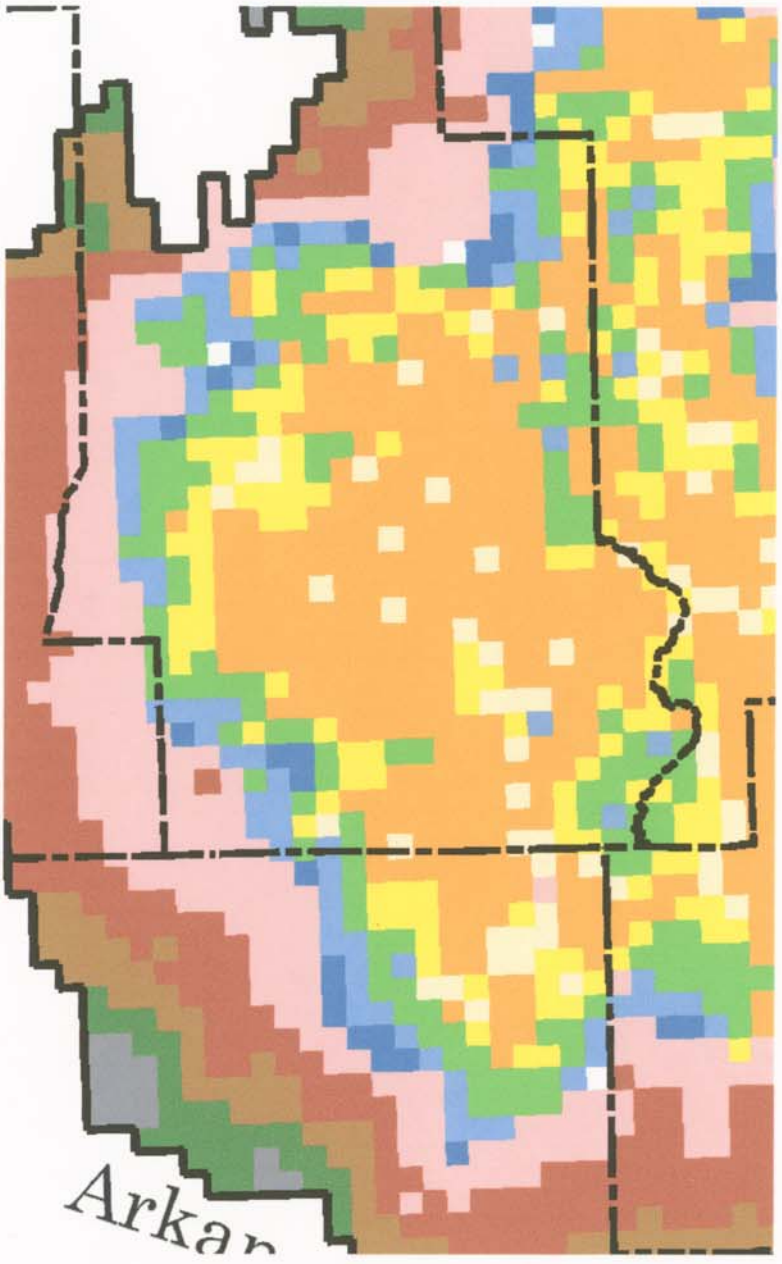

SOURCE: RECALIBRATION OF A GROUND-WATER FLOW MODEL OF THE MISSISSIPPI RIVER VALLEY ALLUVIAL AQUIFER OF NORTHEASTERN ARKANSAS, 1918-1998, WITH SIMULATIONS OF WATER LEVELS CAUSED BY PROJECTED GROUND-WATER WITHDRAWALS THROUGH 2049, By T.B. Reed, U.S. GEOLOGICAL SURVEY, Water-Resources Investigations Report 03-4109, Prepared in cooperation with the Arkansas Soil and Water Conservation Commission and the U.S. Army Corps of Engineers, Memphis District

Figure E-5
Saturated Thickness of Aquifer
Bayou Meto Project Area
2039



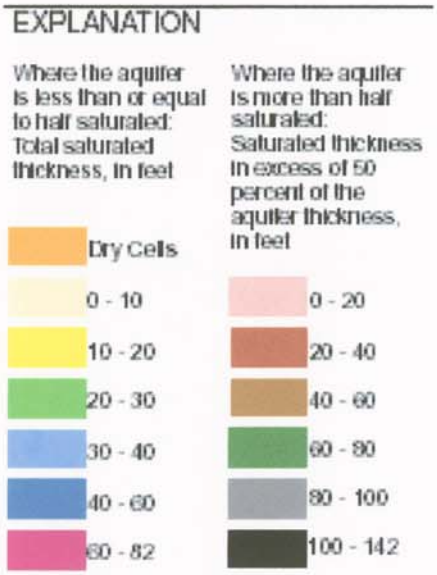

SOURCE: RECALIBRATION OF A GROUND-WATER FLOW MODEL OF THE MISSISSIPPI RIVER VALLEY ALLUVIAL AQUIFER OF NORTHEASTERN ARKANSAS, 1918-1998, WITH SIMULATIONS OF WATER LEVELS CAUSED BY PROJECTED GROUND-WATER WITHDRAWALS THROUGH 2049, By T.B. Reed, U.S. GEOLOGICAL SURVEY, Water-Resources Investigations Report 03-4109, Prepared in cooperation with the Arkansas Soil and Water Conservation Commission and the U.S. Army Corps of Engineers, Memphis District

Figure E-6
Saturated Thickness of Aquifer
Bayou Meto Project Area
2049




SOURCE: RECALIBRATION OF A GROUND-WATER FLOW MODEL OF THE MISSISSIPPI RIVER VALLEY ALLUVIAL AQUIFER OF NORTHEASTERN ARKANSAS, 1918-1998, WITH SIMULATIONS OF WATER LEVELS CAUSED BY PROJECTED GROUND-WATER WITHDRAWALS THROUGH 2049, By T.B. Reed, U.S. GEOLOGICAL SURVEY, Water-Resources Investigations Report 03-4109, Prepared in cooperation with the Arkansas Soil and Water Conservation Commission and the U.S. Army Corps of Engineers, Memphis District

Figure E-7
Saturated Thickness of Aquifer
Bayou Meto Project Area
Legend




SOURCE: RECALIBRATION OF A GROUND-WATER FLOW MODEL OF THE MISSISSIPPI RIVER VALLEY ALLUVIAL AQUIFER OF NORTHEASTERN ARKANSAS, 1918-1998, WITH SIMULATIONS OF WATER LEVELS CAUSED BY PROJECTED GROUND-WATER WITHDRAWALS THROUGH 2049, By T.B. Reed, U.S. GEOLOGICAL SURVEY, Water-Resources Investigations Report 03-4109, Prepared in cooperation with the Arkansas Soil and Water Conservation Commission and the U.S. Army Corps of Engineers, Memphis District.

(2). Acres of Irrigated Crops. Table E-2 presents the present and projected irrigation water sources by decade for the project area. Groundwater use decreases from 598,573 acre-feet in 2000 to 59,216 acre-feet in 2049 due to groundwater mining and aquifer depletion. A summary of the land use by decade based on the individual cell analysis is presented in Table E-3. Irrigated acreage declines from 290,061 acres in 2000 to 186,094 acres in 2009, 67,804 acres in 2019, and 29,322 acres in 2049. Rice acreage decreases from 81,479 acres to 7,858 acres or a 90.4% decrease. Corn decreases from 2,369 acres to 695 acres for a 70.7% decrease. Cotton decreases from 36,446 acres to 2,165 acres for a 94.1% decrease. Irrigated soybeans decrease from 146,304 acres to 16,422 acres or a 88.8% decrease. Baitfish also decreases from 22, 079 acres to 1,879 for a decrease of 91.5% decrease.

It is recognized that the area farmers may choose to partially irrigate their crops instead of a true or complete shift to dryland practices as their existing water sources are depleted. This is not viewed as the best or optimum use of their water resources. Net farm income over the period of analysis would be maximized by fully irrigating all of the acreage that their water sources can supply with a shift of the remaining acreage to dryland crops. It was assumed for this analysis that the farmers would choose to maximize their net farm income instead of partially irrigating a portion of their lands. For this reason, a shift to dryland practices instead of partial irrigation was chosen as the most likely future without-project condition. Any shift to partial irrigation practices would only lower their future without-project income streams. Doing this would cause the estimated benefits of any project analyzed in the following sections to be understated. The dryland crop budgets used in the future without-project analysis are presented in Table E-4.

It was also recognized that the area farmers would try to find alternatives to the alluvial aquifer. The most obvious choice would be to try and tap into the Sparta aquifer. The Sparta aquifer is a much deeper, high quality, lower yielding aquifer that is currently the source of much of the area's municipal and industrial water. Investigations by Memphis District hydrologists in conjunction with other area groundwater experts (NRCS, USGS, and University of Memphis) have concluded that the Sparta aquifer is not a viable long term option. The Sparta has many problems that prevent its exploitation. It is relatively deep, making it very expensive to use. NRCS data has shown that it is not economical to use for agricultural irrigation. Its cost greatly outweighs the added revenues provided by it. It is also low yield adding to the expense. Low yield wells can be utilized for municipal and industrial purposes by pumping into storage. This is not practical for agricultural purposes. Also the Sparta is not large enough to support agricultural irrigation. If agricultural irrigation was economically feasible from the Sparta, exploitation of it would very quickly deplete it. There is just not enough yield in the Sparta under the Bayou Meto project area to make it practical to use as an alternative water source. Lastly, as previously mentioned, the State of Arkansas now feels it has the means to comply with current legislation in regulating groundwater withdrawals in the area. It feels that construction of the Grand Prairie Demonstration Project meets the criteria of providing an alternate irrigation water source and as such can now begin limiting groundwater withdrawals.

**Table E-2**
**Present and Projected Demand and Supply for Irrigation Water**
**Without-Project Conditions**
**Bayou Meto, Arkansas**
**(Acre-Feet)**

| Item | 2000 | 2009 | 2019 | 2029 | 2039 | 2049 | 2062 |
|---|---|---|---|---|---|---|---|
| Demand | 678,624 | 678,624 | 678,624 | 678,624 | 678,624 | 678,624 | 678,624 |
| Supply | | | | | | | |
| Groundwater | 598,573 | 382,367 | 137,017 | 115,177 | 82,259 | 59,216 | 59,216 |
| Storage Reservoirs and Tailwater Recover | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 | 80,051 |
| Total | 678,624 | 462,418 | 217,068 | 195,228 | 162,310 | 139,267 | 139,267 |
| Shortfall | 0 | 216,206 | 461,556 | 483,396 | 516,314 | 539,357 | 539,357 |

**Table E-3**
**Present and Projected Land Use**
**Without-Project Conditions**
**Bayou Meto, Arkansas**
**(Acres)**

| Item | 2000 | 2009 | 2019 | 2029 | 2039 | 2049 | 2062 |
|---|---|---|---|---|---|---|---|
| **Irrigated** | | | | | | | |
| Soybeans Single-Cropped | 105,723 | 64,217 | 25,005 | 21,805 | 15,815 | 11,611 | 11,611 |
| Rice | 81,479 | 49,767 | 18,212 | 15,646 | 11,122 | 7,858 | 7,858 |
| Soybeans Double-Cropped | 40,581 | 26,521 | 11,612 | 9,111 | 6,550 | 4,811 | 4,811 |
| Cotton | 36,446 | 26,298 | 4,900 | 4,813 | 3,484 | 2,165 | 2,165 |
| Corn | 2,369 | 1,991 | 1,370 | 1,172 | 1,164 | 695 | 695 |
| Grain Sorghum | 1,384 | 1,068 | 581 | 554 | 320 | 303 | 303 |
| Aquaculture | 22,079 | 16,232 | 6,125 | 3,770 | 2,727 | 1,879 | 1,879 |
| Total | 290,061 | 186,094 | 67,805 | 56,871 | 41,182 | 29,322 | 29,322 |
| **Dryland** | | | | | | | |
| Soybeans Single-Cropped | 0 | 73,218 | 143,985 | 149,751 | 160,265 | 167,733 | 167,733 |
| Soybeans Double-Cropped | 0 | 14,060 | 28,969 | 31,470 | 34,031 | 35,770 | 35,770 |
| Cotton | 0 | 10,148 | 31,546 | 31,633 | 32,962 | 34,281 | 34,281 |
| Corn | 0 | 378 | 999 | 1,197 | 1,205 | 1,674 | 1,674 |
| Grain Sorghum | 0 | 316 | 803 | 830 | 1,064 | 1,081 | 1,081 |
| Abandoned Fish Ponds | 0 | 5,847 | 15,954 | 18,309 | 19,352 | 20,200 | 20,200 |
| Total | 0 | 103,967 | 222,256 | 233,190 | 248,879 | 260,739 | 260,739 |
| **Total** | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 | 290,061 |

**Table E-4**
**Dryland Crops**
**Without-Project Conditions**
**Bayou Meto, Arkansas**
**(October 2004 Price Levels)**

| Item | Unit | Price | Yield | Gross Revenues | Production Cost 1/ | Net Return 2/ |
|---|---|---|---|---|---|---|
| | | ($) | | ($) | ($) | ($) |
| Soybeans | bu. | 5.65 | 23 | 127.13 | 127.27 | -0.14 |
| Double-Crop | | | | 275.40 | 231.59 | 43.81 |
| Soybeans | bu. | 5.65 | 20 | | | |
| Wheat | bu. | 2.90 | 56 | | | |
| Cotton | | | | 382.68 | 340.19 | 42.49 |
| Lint | lb. | 0.446 | 725 | | | |
| Seed | ton | 93.00 | 0.6380 | | | |
| Corn | bu. | 2.43 | 110 | 267.30 | 248.59 | 18.71 |
| Grain Sorghum | cwt. | 4.40 | 43 | 189.20 | 159.85 | 29.35 |
| Subtotal Crops | | | | | | |
| Aquaculture | lb. | 2.75 | 450 | 1,237.50 | 962.66 | 274.84 |

1/ Excludes charges for Land and Management.
2/ Includes returns to Land and Management.

## E-6. WITH-PROJECT CONDITIONS.

None of the alternatives investigated provides all of the irrigation water needed all of the time. However, all consistently provide a majority of the area's average year's water needs. Major components of the project are increased conservation levels, additional on-farm storage reservoirs, and the import system bringing water from the Arkansas River with the withdrawal limitation set at the minimum navigation pool level. Since none of the alternatives considered could meet all of the area's needs, two key assumptions were made to facilitate the effective use of the water supplied by the project. The first was that the area's farmers would use their remaining groundwater in as optimum method as possible. The second was that reductions in rice acreage would be recommended in order to meet an average year's needs.

Using the remaining groundwater in the optimum method requires the groundwater to be used for baitfish production first. Surface water is not desirable for baitfish production because it usually carries diseases and undesirable species of fish that are not compatible with best management practices. Therefore, if groundwater was available in a cell where baitfish ponds were located, it was assumed to be used for the fish ponds first. If sufficient groundwater was not available in a cell, some ponds were retired from production. If excess groundwater was available in a cell, the excess was used in the production of other crops. It is expected that this criteria will be implemented as part of the area's farmer's agreements with the irrigation district. The agreements will encourage the full use of groundwater for baitfish producers with other producers using imported surface water as their first choice for irrigation.

a. Demand for Irrigation Water. The first step in implementing the project was to look at alternative ways to cut the demand for irrigation water. This had to be done since there was no source available that would provide for all of the area's projected unmet needs. NRCS studied the area's water usage and determined it to be at a 60% efficiency level. This means that of all the water drawn from the area's sources, only 60% actually gets to the fields and is used by the crops. NRCS then developed additional conservation measures that could be applied to the area's farms to make them more efficient in their water use. The optimum conservation level was found to be 70% efficiency. Information on the selection of this level can be found in the NRCS Appendix of this report. This level of conservation was used in all of the alternatives presented in this section. The second step was to look at possible reductions in rice acreage to meet the average years demand. For Alternative WS4B, approximately 24,300 acres of rice would need to be shifted to other less intensive water using crops such as cotton, corn, grain sorghum, and soybeans. Again, this shift is needed to most effectively irrigate the entire project area based on an average year's demand.

It should be pointed out here that the proposed 24,300 acre reduction in rice acreage is only a recommendation and is not a mandatory condition of the project. The farmers of the area produce their crops under a distinctly different set of economic circumstances than those required to be used by Corps of Engineers guidelines. The most prominent is in the prices they receive for their crops. They receive actual prevailing market prices while Corps of Engineer guidelines require using Current Normalized Prices produced by the USDA's ERS. It would not be desirable to mandate acreage controls. Instead of controlling acreage, it would be better to control the amount of water used by the farmers and allow the prevailing market prices to allocate the water to the various

irrigated crops. During some years with higher rice prices, it may be better for the farmers to maximize their rice production and let some of their other crops to shift to dryland practices. However, with lower relative rice prices, it may make more economic sense to shift rice acreage to other crop production in order to maximize irrigation.

b. Supply of Irrigation Water. The yearly un-met demands were modeled against the excess flows available in the Arkansas River for the period 1940 through 1995. Table E-5 shows that Alternative WS4B can provide an average of 644,267 acre-feet per year. This level will provide approximately 94.9% of an average year's crop-season need without any reductions in rice acreage. With WS4B in place there will be an unmet need or shortage of 34,357 acre-feet, which will mean a portion of the area will convert to dryland practices. However, if 24,300 acres of rice production could be converted to other less intensive water uses, then an average year's demand could be met. The estimated groundwater that can be pumped from the alluvial aquifer is 148,565 acre-feet. This figure is significantly higher than the future without-project figure of only 59,216 acre-feet. The higher future with-project figure can be obtained by preventing long term damage to the aquifer caused by prolonged pumping by the area's farmers. The longer pumping is maintained at maximum levels, the more likely long term damage is to occur. The quicker an alternative water source, such as Alternative WS4B, can be implemented, the more likely long term damage can be prevented. Therefore, it is imperative that WS4B should be built as quickly as possible.

c. Acres of Each Crop. Without a shift in rice acreage the expected shortage in available irrigation water directly translates into a reduction in irrigated acreage. The acreage of irrigated crops would decline to 275,367, a 14,685 acre or 5.1% reduction. However, with the 24,300 acre shift in rice production, the area could be irrigated based on an average year's demand. Projected with-project land use by crop is presented in Table E-6 and reflects the proposed rice acreage shift. With the project the production of cotton, corn, soybeans, and grain sorghum are expected to increase by almost 5,000 acres each while rice acreage decreases.

**Table E-5**
**Present and Projected Demand and Supply of Irrigation Water**
**Present Land Use**
**With-Project Conditions**
**Alternative WS4B**
**Bayou Meto, Arkansas**
**(Acre-Feet)**

| Item | Year | | | |
|---|---|---|---|---|
| | 2000 | 2011 1/ | 2013 2/ | 2062 |
| Demand | | | | |
| Without Rice Acreage Reduction | 678,624 | 678,624 | 678,624 | 678,624 |
| With Rice Acreage Reduction 3/ | 678,624 | 644,267 | 644,267 | 644,267 |
| Supply | | | | |
| Existing Sources | 80,051 | 80,051 | 80,051 | 80,051 |
| Conservation | 0 | 92,038 | 92,038 | 92,038 |
| Groundwater 2/ | 598,573 | 317,084 | 148,565 | 148,565 |
| Import System | 0 | 134,162 | 268,324 | 268,324 |
| New Storage Reservoirs | | 55,289 | 55,289 | 55,289 |
| Total | 678,624 | 678,624 | 644,267 | 644,267 |
| Shortfall | | | | |
| Without Rice Acreage Reduction | 0 | 0 | 34,357 | 34,357 |
| With Rice Acreage Reduction 4/ | | 0 | 0 | 0 |

1/ On-farm conservation features complete.
2/ Import system complete.
3/ Rice acreage reduced by 24,300 acres and acreage shifted to other less water intensive crops so that average yearly demand can be met.
4/ At year 2013 when project is complete, groundwater pumping is limited to safe yield of 148,565 acre-feet.

**Table E-6**
**Present and Projected Land Use**
**With-Project Conditions**
**Alternative WS4B**
**With Rice Acreage Reduction**
**Bayou Meto, Arkansas**
**(Acres)**

| Item | Year | | | |
|---|---|---|---|---|
| | 2000 | 2011 | 2013 | 2062 |
| **Irrigated** | | | | |
| Soybeans | 105,723 | 110,583 | 110,583 | 110,583 |
| Rice | 81,479 | 57,179 | 57,179 | 57,179 |
| Double-Crop | 40,581 | 45,441 | 45,441 | 45,441 |
| Cotton | 36,446 | 41,306 | 41,306 | 41,306 |
| Corn | 2,369 | 7,229 | 7,229 | 7,229 |
| Grain Sorghum | 1,384 | 6,244 | 6,244 | 6,244 |
| Aquaculture | 22,079 | 22,079 | 22,079 | 22,079 |
| Total | 290,061 | 290,061 | 290,061 | 290,061 |
| **Dryland** | | | | |
| Soybeans | 0 | 0 | 0 | 0 |
| Double-Crop | 0 | 0 | 0 | 0 |
| Cotton | 0 | 0 | 0 | 0 |
| Corn | 0 | 0 | 0 | 0 |
| Grain Sorghum | 0 | 0 | 0 | 0 |
| Abandoned Fish Ponds | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 |
| **Total** | 290,061 | 290,061 | 290,061 | 290,061 |

d. Crop Data. The crop data per acre is essentially the same as for existing conditions with one exception. There will be as an added beneficial effect a reduction in the on-farm pumping cost of irrigation water. Presently, approximately 88% of irrigation water comes from groundwater and 12% from surface water. With the project approximately 78% of the water will come from surface water and conservation measures while only about 22% will come from groundwater. Groundwater is pumped from depths of 200 feet or more. Surface water is pumped an average of 15 feet. Because of this, surface water requires significantly lower energy, maintenance, and equipment costs to apply to the area's fields than does groundwater. The capital investment of deep wells is also much greater than surface water relift pumps. The current (2004) energy costs per acre under both without- and with-project conditions and current and projected cost reductions per acre are presented in Table E-7. All other data for the irrigated crops are presented in Table E-8.

## E-7. BENEFITS.

All project benefits are based on current (2004) price levels, estimated over a 50-year period of analysis plus the installation period, and discounted to the end of the project installation period using the current Federal discount rate of 5.375%. The project benefits consist solely of irrigation benefits. Irrigation benefits consist of the difference between with- and without-project revenue streams. They are comprised of the increased crop production of maintaining irrigation practices versus dryland practices and any efficiencies or cost savings of using surface water in place of groundwater. The following sections present the methodologies used to calculate each of the benefit categories in this analysis.

a. Economic Projections. The methodology to project future revenues under without- and with-project conditions is different than the methodology used in prior Memphis District studies. This study is a very large and complex study that was conducted by two Corps of Engineers districts, Memphis and Vicksburg. Memphis District conducted the irrigation water study while Vicksburg District conducted the flood protection study. The two districts employ somewhat different methods to estimate future conditions. It was decided for consistency purposes that the same method should be used by both Districts. After consultation between the two Districts and with Headquarters level recommendation, it was decided to use Vicksburg District's methodology. The projection factors used in this analysis are presented in Table E-9. A detailed description of how these factors were derived can be found in Appendix F prepared by the Vicksburg District.

**Table E-7**
**Irrigation Energy Costs and Cost Reductions**
**Without- and With-Project Conditions**
**Bayou Meto, Arkansas**
**(October 2004 Price Levels)**

| Item | 2000 | 2013 |
|---|---|---|
| | $/Acre | $/Acre |
| Soybeans | | |
| Without-Project | 13.00 | 9.96 |
| With-Project | 13.00 | 4.29 |
| Reduction | 0.00 | 5.67 |
| Rice | | |
| Without-Project | 32.00 | 24.51 |
| With-Project | 32.00 | 10.57 |
| Reduction | 0.00 | 13.94 |
| Double-Crop | | |
| Without-Project | 10.00 | 7.66 |
| With-Project | 10.00 | 3.30 |
| Reduction | 0.00 | 4.36 |
| Cotton | | |
| Without-Project | 12.00 | 9.19 |
| With-Project | 12.00 | 3.96 |
| Reduction | 0.00 | 5.23 |
| Corn | | |
| Without-Project | 10.00 | 7.66 |
| With-Project | 10.00 | 3.30 |
| Reduction | 0.00 | 4.36 |
| Grain Sorghum | | |
| Without-Project | 7.00 | 5.36 |
| With-Project | 7.00 | 2.31 |
| Reduction | 0.00 | 3.05 |
| Aquaculture | | |
| Without-Project | 100.00 | 76.59 |
| With-Project | 100.00 | 76.59 |
| Reduction | 0.00 | 0.00 |

Cost reduction due to switch from groundwater to surface water.

**Table E-8**
**Future (2013) Land Use**
**Irrigated Crops**
**With-Project Condidions**
**Alternative WS4B**
**Bayou Meto, Arkansas**
**(October 2004 Price Levels)**

| Item | Percent Dist. | Acres | Unit | Price | Yield | Gross Revenues | Production Cost 1/ | Net Return 2/ | Weighted Net Return |
|---|---|---|---|---|---|---|---|---|---|
| | | | | ($) | | ($) | ($) | ($) | ($) |
| Soybeans | 38.1% | 110,583 | bu. | 5.65 | 48 | 271.20 | 187.04 | 84.16 | 32.09 |
| Rice | 19.7% | 57,179 | cwt. | 4.16 | 72.00 | 299.52 | 273.43 | 26.09 | 5.14 |
| Double-Crop | 15.7% | 45,441 | | | | 392.92 | 273.53 | 119.39 | 18.70 |
| Soybeans | | | bu. | 5.65 | 41 | | | | |
| Wheat | | | bu. | 2.90 | 56 | | | | |
| Cotton | 14.2% | 41,306 | | | | 527.84 | 334.96 | 192.88 | 27.47 |
| Lint | | | lb. | 0.446 | 1,000 | | | | |
| Seed | | | ton | 93.00 | 0.8800 | | | | |
| Corn | 2.5% | 7,229 | bu. | 2.43 | 175 | 425.25 | 322.46 | 102.79 | 2.56 |
| Grain Sorghum | 2.2% | 6,244 | cwt. | 4.40 | 64 | 281.60 | 207.10 | 74.50 | 1.60 |
| Subtotal Crop | 92.4% | 267,982 | | | | | | | |
| Aquaculture | 7.6% | 22,079 | lb. | 2.75 | 450 | 1,237.50 | 962.66 | 274.84 | 20.92 |
| Total | 100.0% | 290,061 | | | | | | | 108.48 |

1/ Excludes charges for Land and Management.
2/ Includes returns to Land and Management.

**Table E-9**
**Projection Factors**
**All Alternatives**
**Bayou Meto, Arkansas**

| Year | Factor |
|---|---|
| Prior to Project Completion | |
| 2008 | 1.02820 |
| 2009 | 1.04230 |
| 2010 | 1.05640 |
| 2011 | 1.07050 |
| After Project Completion | |
| 2012 | 1.08461 |
| 2019 | 1.16921 |
| 2029 | 1.31022 |
| 2039 | 1.45122 |
| 2049 | 1.59223 |
| 2062 | 1.77554 |

Source: Compiled from data presented in Appendix F prepared by the Vicksburg District for the Flood Protection portion of the total project. Factors are based on increases in the value of farm products sold per acre harvested based on constant price levels (no inflation).

b. Benefit Streams. The irrigation benefits were derived from maintaining as high a level of irrigation practices as possible and from lower irrigation costs due to reduced pumping costs as surface water is substituted for groundwater. Without the project, the aquifer is expected be depleted to such a point that a large portion of the presently irrigated crops will shift to dryland practices. As the groundwater available without the project declines, the irrigated acres will shift to dryland crops. With the project, import water is provided to replace the lost groundwater. This allows irrigation practices to continue to the level at which the import sources can sustain. Irrigation benefits are the difference in total net revenues between the with- and without-project conditions. Total revenues for Alternative WS4B and without-project conditions and project benefits during the project implementation period and by decade throughout the period of analysis are presented in Table E-10. The benefits begin in 2007 as conservation measures and on-farm storage reservoirs are constructed. Average annual equivalent revenues and benefits are also presented in Table E-10. Benefits under traditional methods are estimated at $32.3 million.

c. Risk Analysis. This section provides an estimate of the risk inherent with the economic data used to evaluate the effects of the project. It addresses the areas where risk and uncertainty are known to exist so that the economic performance of a project can be expressed in terms of probability distributions. This analysis was performed using Excel spreadsheets in conjunction with an add-on simulation model entitled @Risk. It incorporates the range (maximum and minimum) of possible values for an input variable and specifies the statistical distribution of likely outcomes over the chosen range. In the case where a normal distribution is assumed, 68% percent of the occurrences of a particular outcome fall within (plus or minus) one standard deviation, on either side of the mean, and 95% percent within two standard deviations on either side of the mean. The initial step in constructing an @Risk simulation is to identify the sources of uncertainty. Some sources of risk and uncertainty arise from measurement errors, small sample sizes, estimation and forecasting errors, and modeling errors. The variables affecting the benefits, the shape of their distributions, and the amounts they are allowed to vary during the simulation are presented in Table E-11.

The @Risk simulation was performed utilizing 3,000 iterations, or different combinations, of the economic variables. The 68 and 95 percent confidence bands around the mean results are plus/minus one and two standard deviations, respectively. An additional step was taken to identify which variable(s) contributed the most to uncertainty. The simulation was run again, varying each variable individually while holding the remaining variables constant. The most important variable was the 25% variation in crop yield followed by the 15% variation in crop prices. The 2 standard deviations in the input projection factor, 10% variation in crop mix, and variation in interest rate had negligible effect on the annual benefits.

**Table E-10**
**Present and Projected Irrigation Benefits**
**Alternative WS4B**
**Bayou Meto, Arkansas**
**(October 2004 Price Levels, 5.375%, $000)**

| Year | With-Project | Without-Project | Benefit | Projected Benefit |
|---|---|---|---|---|
| Benefits Accruing During Construction Period | | | | |
| 2007 | 23,860 | 23,860 | 0 | 0 |
| 2008 | 26,060 | 23,046 | 3,014 | 3,099 |
| 2009 | 26,369 | 22,222 | 4,147 | 4,322 |
| 2010 | 27,449 | 21,390 | 6,059 | 6,401 |
| 2011 | 28,321 | 20,547 | 7,773 | 8,321 |
| Benefits Accruing After Project Completion | | | | |
| 2012 | 33,571 | 19,494 | 14,077 | 15,268 |
| 2019 | 34,511 | 12,835 | 21,676 | 25,344 |
| 2029 | 34,511 | 8,535 | 25,975 | 34,033 |
| 2039 | 34,511 | 7,254 | 27,257 | 39,556 |
| 2049 | 34,511 | 6,134 | 28,377 | 45,182 |
| 2062 | 34,511 | 5,822 | 28,689 | 50,938 |
| Average Annual Equivalent (5 3/8%) | | | | 32,330 |

**Table E-11**
**Results of Risk Analysis**
**nd Standard Deviations of Average Annual Equivalent Irrigation Benefits Resulting from Varying Individual Risk-Based Items**
**Plus/Minus Two Standard Deviations**
**Alternative WS4B; Bayou Meto, Arkansas**
**(October 2004 Price Levels, $000)**

| Item | Annual Benefit | | Distribution | Variation in Item |
|---|---|---|---|---|
| | Mean | Standard Deviation | | |
| Crop Yields | 32,372 | 5,589 | Truncated Normal | 25% |
| Crop Prices | 32,372 | 2,437 | Truncated Normal | 15% |
| Output Projection Factor | 32,411 | 1,935 | Truncated Normal | 2 Standard Deviations |
| Production Cost | 32,372 | 726 | Truncated Normal | 5% |
| Crop Mix | 32,372 | 495 | Truncated Normal | 10% |
| Input Projection Factor | 32,368 | 394 | Truncated Normal | 2 Standard Deviations |
| Interest Rate | 32,376 | 175 | Truncated Normal | Allows interest rate to range between 5.625% and 6.625% |
| All Items | 32,330 | 6,525 | | |

b. Reliability Analysis. This section provides information on the reliability of the project in providing adequate water to irrigate the project area. The two factors influencing the reliability of the project are: (1) The demand for irrigation water and (2) The amount of water that the project can provide. The mean or average demand before conservation to irrigate the entire 290,061-acre project area is 678,624 acre-feet with a standard deviation of 46,183 acre-feet. After conservation the demand is effectively reduced by 92,038 acre-feet to 586,586 with a standard deviation of 39,920. The demand varied greatly over the 56-year period of record. After the conservation practices were implemented, it varied from a low of 441,183 acre-feet to a high of 750,599 acre-feet. The wide range between the two extremes is due to the unpredictability of rainfall and wide variation in temperatures from year to year. Lower rainfall and higher temperature levels increase the need for supplemental irrigation water. Higher rainfall and lower temperature levels decrease the need for supplemental irrigation water.

The project is also limited by the amount of water that can be imported from the Arkansas River. This amount varies from year to year depending on the precipitation falling upstream of the pumping station. The mean demand met by Alternative WS4B is 644,267 acre-feet (includes 92,038 acre-feet of conservation) with a standard deviation of 42,311 acre-feet. With no shift in rice acreage to less intensive water using crops, this translates into a mean irrigated acreage of 275,376 acres and a standard deviation of 18,085 acres. This means that on an average year approximately 94.9% of the average demand can be met (644,267 acre-feet/678,624 acre-feet). Figure E-8 graphically presents the mean irrigated crop acreage by alternative. Table E-12 shows the percentage of the area that can be irrigated under each of the alternatives carried into detailed analysis. Table E-12 also reflects no shift of rice acreage to other crops.

c. Summary of Irrigation Benefits. A summary of the irrigation benefits by alternative is presented in Table E-13. The benefits are presented for traditional methodology which is based on the average, or best estimate, and for risk-based results which are based on "Monte Carlo" simulation. Means and standard deviations are presented for the risk-based benefits. Total annual benefits accruing to Alternative WS4B are estimated at $32,330,000.

## Figure E-8. Percent of Mean Year's Irrigated Crop Acreage Provided

**No Reduction in Rice Acreage**

**Bayou Meto, Arkansas**

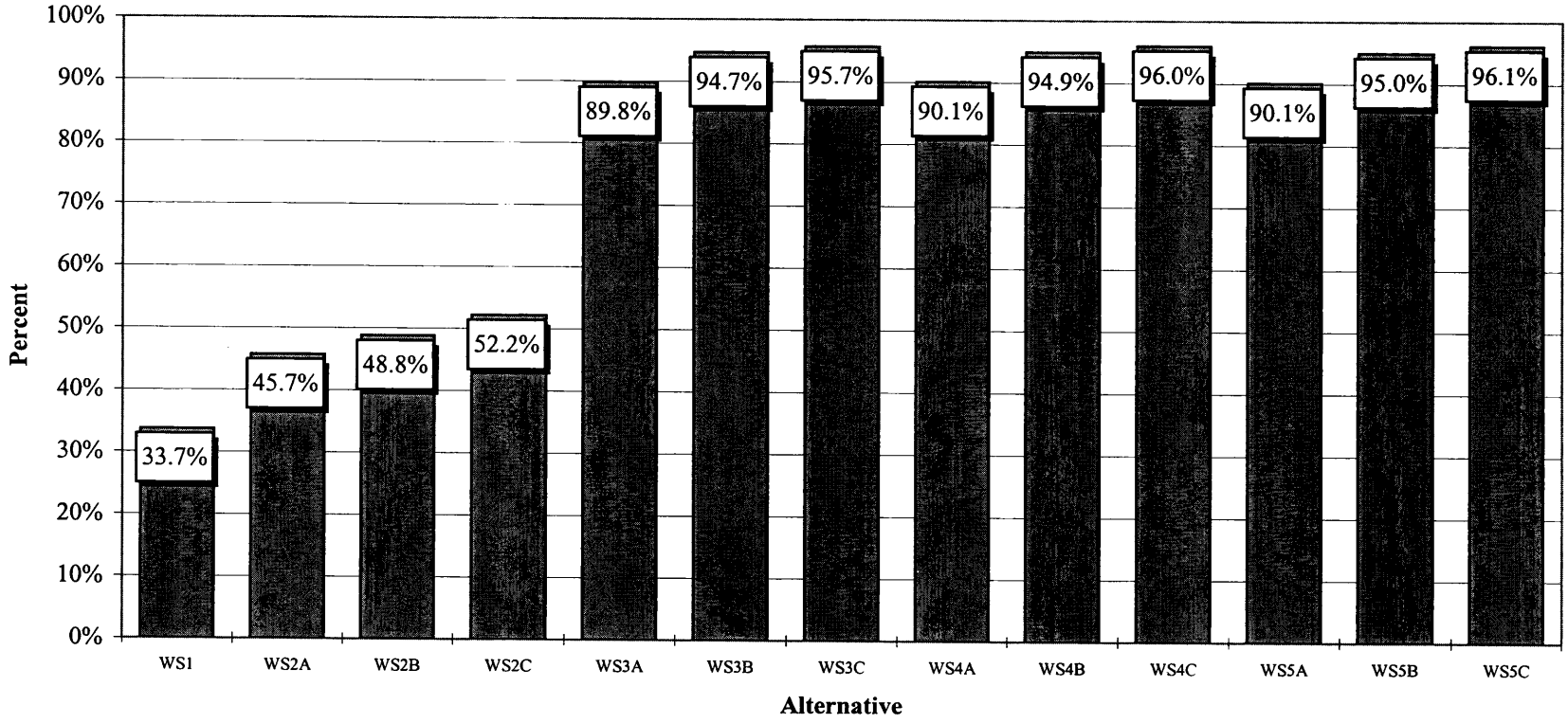


**Table E-12**
**Summary of Reliability Information**
**No Reduction in Rice Acreage**
**Bayou Meto, Arkansas**

| Alternative | Mean Acres Irrigated (Acres) | Standard Deviation (Acres) | Percent of Mean Year's Irrigated Acreage |
|---|---|---|---|
| WS1 | 97,716 | 10,292 | 33.7% |
| WS2A | 132,570 | 10,877 | 45.7% |
| WS2B | 141,573 | 11,279 | 48.8% |
| WS2C | 151,391 | 11,731 | 52.2% |
| WS3A | 260,461 | 43,756 | 89.8% |
| WS3B | 274,546 | 46,120 | 94.7% |
| WS3C | 277,595 | 46,629 | 95.7% |
| WS4A | 261,260 | 42,577 | 90.1% |
| WS4B | 275,376 | 44,886 | 94.9% |
| WS4C | 278,378 | 45,362 | 96.0% |
| WS5A | 261,278 | 40,552 | 90.1% |
| WS5B | 275,467 | 42,871 | 95.0% |
| WS5C | 278,860 | 43,498 | 96.1% |

**Table E-13**
**Summary of Annual Irrigation Benefits**
**Bayou Meto, Arkansas**
**(October 2004 Price Levels, 5.375% Discount Rate)**

| Alternative | Traditional | Risk Based | |
|---|---|---|---|
| | | Mean | Standard Deviation |
| | ($000) | ($000) | ($000) |
| WS2A | 5,664 | 5,669 | 1,121 |
| WS2B | 6,953 | 6,964 | 1,373 |
| WS2C | 7,981 | 7,990 | 1,568 |
| WS3A | 30,054 | 30,091 | 5,972 |
| WS3B | 32,183 | 32,213 | 6,377 |
| WS3C | 32,381 | 32,426 | 6,474 |
| WS4A | 30,165 | 30,204 | 6,014 |
| WS4B | 32,294 | 32,330 | 6,509 |
| WS4C | 32,373 | 32,428 | 6,473 |
| WS5A | 30,167 | 30,207 | 5,929 |
| WS5B | 32,285 | 32,332 | 6,535 |
| WS5C | 32,402 | 32,428 | 6,582 |

## E-8. COSTS.

The project costs like the annual benefits are based on current price levels, estimated over a 50-year period of analysis plus the installation period, and discounted to the end of the project installation period using the current Federal discount rate of 5.375%. The annual costs consist of interest, sinking fund, operation, maintenance, and replacement charges.

a. First Costs. Project costs for the off-farm component of Alternative WS4B total $301,771,000 and are presented in Table E-14. These costs are presented by year for each construction item. This cost includes the excavation of the canals plus the structures necessary to carry the water underneath existing roads and streams where necessary. Also included are the costs for the pumping plant, relocations, lands and damages, diversion structures, cultural resources, mitigation, contingencies, engineering and design, and construction management. Total project costs for the on-farm component of Alternative WS4B are $65,000,000 (Table E-15). The largest component of these costs is for the storage reservoirs which account for approximately 37% of the on-farm cost. The remaining on-farm costs are for pipelines, pumps, water control structures, tailwater recovery system, and technical assistance. All costs are based on October 2004 price levels and are assumed to be end of year expenditures.

b. Annual Interest and Sinking Fund Costs. The annual interest and sinking fund costs for both the off-farm and the on-farm components of Alternative WS4B are presented in Table E-16. All annual costs are based on a reference point at the beginning of year 2012, the current discount rate of 5.375 percent, and a 50 year period of analysis. Annual interest charges are slightly more than $23.6 million. Annual sinking fund charges are slightly less than $1.9 million.

c. Annual Operation and Maintenance Costs. Annual off-farm operation, maintenance, and replacement costs for Alternative WS4B are presented in Table E-17. Annual on-farm costs are presented in Table E-18. Both use the beginning of 2012 as the reference point for discounting, a discount rate of 5.875 percent, and a 50-year period of analysis. Annual costs are $3,055,000 and $856,000 for the off-farm and on-farm components, respectively. Approximately 55% of the off-farm costs are for the large pumping station followed by the small pumping stations at 21%, building maintenance at 15%, structures at 5%, and canals at 4%. The annual on-farm costs include reservoirs (43%), pipelines (26%), water control structures (15%), pumps (13%), and tailwater recovery (3%). Any cost of maintaining existing on-farm development is reflected in the without- and with-project crop budgets. Including any existing costs in both the annual costs and the crop budgets would be double-counting. A detailed on-farm analysis, including costs for both existing development and with-project features, is presented in the NRCS section.

d. Total Annual Costs. Total project first costs for Alternative WS4B are $366,771,000. Federal costs account for $238,401,000 with Non-Federal costs making up the remaining $128,370,000 based on 65% Federal and 35% Non-Federal cost sharing. Annual interest charges are $23,640,000 and annual sinking fund charges are $1,860,000. Alternative WS4B also requires annual operation and maintenance of $3,911,000. Total annual costs for Alternative WS4B are estimated at $29,411,000. Annual costs for all alternatives are presented in Table E-19.

**Table E-14**
**Cost Schedule for Off-Farm Component of Project (Import System and Pumping Station)**
**Alternative WS4B**
**Bayou Meto, Arkansas**
**(October 2004 Price Levels)**

| Item | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | Total |
|---|---|---|---|---|---|---|---|---|
| 1 | 1,885,000 | 1,087,300 | 8,206,000 | 14,565,500 | 2,294,200 | 0 | 0 | 28,038,000 |
| 2 | 8,211,000 | 2,259,700 | 15,739,100 | 138,200 | 0 | 0 | 0 | 26,348,000 |
| 3A | 271,600 | 2,097,100 | 18,293,700 | 10,676,600 | 35,000 | 0 | 0 | 31,374,000 |
| 3B | 750,700 | 589,500 | 304,100 | 31,700 | 1,530,900 | 22,100 | 0 | 3,229,000 |
| 4 | 3,038,000 | 928,625 | 257,425 | 7,278,625 | 192,325 | 0 | 0 | 11,695,000 |
| 5 | 4,681,800 | 4,573,575 | 18,201,675 | 17,606,375 | 463,575 | 0 | 0 | 45,527,000 |
| 6 | 0 | 3,455,966 | 1,251,067 | 26,640,067 | 20,900 | 0 | 0 | 31,368,000 |
| 7A | 1,189,400 | 2,235,075 | 11,592,975 | 10,997,775 | 142,775 | 0 | 0 | 26,158,000 |
| 7B | 1,825,000 | 960,183 | 166,084 | 117,433 | 2,205,100 | 17,200 | 0 | 5,291,000 |
| 8 | 378,500 | 729,400 | 258,700 | 5,458,600 | 201,800 | 0 | 0 | 7,027,000 |
| 9 | 0 | 4,112,400 | 398,500 | 2,618,400 | 27,700 | 0 | 0 | 7,157,000 |
| 10 | 0 | 556,600 | 7,033,300 | 927,800 | 4,176,600 | 33,700 | 0 | 12,728,000 |
| 11 | 0 | 1,108,900 | 639,000 | 747,700 | 9,435,200 | 3,069,800 | 1,400 | 15,002,000 |
| 12 | 0 | 280,400 | 236,500 | 73,100 | 1,963,000 | 7,000 | 0 | 2,560,000 |
| 13 | 0 | 437,600 | 91,200 | 509,200 | 0 | 0 | 0 | 1,038,000 |
| 14 | 0 | 0 | 1,273,300 | 98,800 | 3,223,900 | 35,100 | 8,900 | 4,640,000 |
| 15 | 0 | 0 | 1,872,100 | 121,100 | 65,100 | 781,700 | 0 | 2,840,000 |
| 16 | 0 | 0 | 342,400 | 298,800 | 83,100 | 4,146,700 | 0 | 4,871,000 |
| 17 | 0 | 0 | 860,700 | 7,093,200 | 2,191,700 | 12,207,500 | 10,710,900 | 33,064,000 |
| Mitigation | 363,550 | 363,350 | 363,350 | 363,350 | 362,400 | 0 | 0 | 1,816,000 |
| Total | 22,594,550 | 25,775,674 | 87,381,176 | 106,362,325 | 28,615,275 | 20,320,800 | 10,721,200 | 301,771,000 |

**Table E-15**
**Cost Schedule for On-Farm Component of Project**
**Alternative WS4B**
**Grand Prairie Area Demonstration Project**
**(October 2004 Price Levels)**

| Item | 2005 | 2006 | 2007 | 2008 | 2009 | Total |
|---|---|---|---|---|---|---|
| Reservoirs | 2,411,200 | 5,425,200 | 5,425,200 | 5,425,200 | 5,425,200 | 24,112,000 |
| Tailwater Recovery | 167,900 | 377,775 | 377,775 | 377,775 | 377,775 | 1,679,000 |
| Pipelines | 1,468,500 | 3,304,125 | 3,304,125 | 3,304,125 | 3,304,125 | 14,685,000 |
| Pumping Plants | 734,200 | 1,651,950 | 1,651,950 | 1,651,950 | 1,651,950 | 7,342,000 |
| Water Control Structures | 870,400 | 1,958,400 | 1,958,400 | 1,958,400 | 1,958,400 | 8,704,000 |
| Technical Assistance | 847,800 | 1,907,550 | 1,907,550 | 1,907,550 | 1,907,550 | 8,478,000 |
| Total | 6,500,000 | 14,625,000 | 14,625,000 | 14,625,000 | 14,625,000 | 65,000,000 |

**Table E-16**
**Average Annual Equivalent Interest and Sinking Fund Costs**
**Alternative WS4B**
**Bayou Meto, Arkansas**
**(October 2004 Price Levels, 5.375% Discount Rate)**

| FY | Off-Farm Cost | On-Farm Cost | Total Cost | Present Value Factor @ 5.375% | Present Value Cost |
|---|---|---|---|---|---|
| 2005 | 22,594,550 | 6,500,000 | 29,094,550 | 1.369070 | 39,832,476 |
| 2006 | 25,775,674 | 14,625,000 | 40,400,674 | 1.299240 | 52,490,172 |
| 2007 | 87,381,176 | 14,625,000 | 102,006,176 | 1.232960 | 125,769,535 |
| 2008 | 106,362,325 | 14,625,000 | 120,987,325 | 1.170070 | 141,563,639 |
| 2009 | 28,615,275 | 14,625,000 | 43,240,275 | 1.110390 | 48,013,569 |
| 2010 | 20,320,800 | | 20,320,800 | 1.053750 | 21,413,043 |
| 2011 | 10,721,200 | | 10,721,200 | 1.000000 | 10,721,200 |
| | 301,771,000 | 65,000,000 | 366,771,000 | | 439,803,634 |
| Interest | | | | 0.05375 | 23,639,445 |
| (Use, Rounded) | | | | | 23,639,000 |
| Sinking Fund (50 Year Period of Analysis) | | | | 0.00423 | 1,860,369 |
| (Use, Rounded) | | | | | 1,860,000 |
| Total | | | | | 25,499,000 |

**Table E-17**
**Average Annual Equivalent Off-Farm Operation, Maintenance, and Replacement Costs**
**Alternative WS4B**
**Bayou Meto, Arkansas**
**(October 2004 Price Levels, 5.375% Discount Rate)**

| Fiscal Year | Number of Years Discounted | Large Pumping Station | Small Pumping Stations | Structures | Canals | Building | Total | Value Factor @ 5.375% | Present Value of Total |
|---|---|---|---|---|---|---|---|---|---|
| 2010 | -1 | 996,625 | 291,906 | 67,647 | 33,300 | 408,700 | 1,798,177 | 1.053750 | 1,894,829 |
| 2011 | 0 | 996,625 | 437,858 | 101,470 | 33,300 | 408,700 | 1,977,953 | 1.000000 | 1,977,953 |
| 2012 | 1 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.948990 | 2,641,150 |
| 2013 | 2 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.900590 | 2,506,447 |
| 2014 | 3 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.854650 | 2,378,591 |
| 2015 | 4 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.811050 | 2,257,247 |
| 2016 | 5 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.769680 | 2,142,109 |
| 2017 | 6 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.730420 | 2,032,844 |
| 2018 | 7 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.693170 | 1,929,173 |
| 2019 | 8 | 1,588,712 | 617,633 | 219,543 | 66,600 | 408,700 | 2,901,189 | 0.657810 | 1,908,431 |
| 2020 | 9 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.624250 | 1,737,361 |
| 2021 | 10 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.592410 | 1,648,746 |
| 2022 | 11 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.562190 | 1,564,640 |
| 2023 | 12 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.533520 | 1,484,848 |
| 2024 | 13 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.506300 | 1,409,092 |
| 2025 | 14 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.480480 | 1,337,232 |
| 2026 | 15 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.455970 | 1,269,018 |
| 2027 | 16 | 1,588,712 | 617,633 | 219,543 | 66,600 | 408,700 | 2,901,189 | 0.432710 | 1,255,373 |
| 2028 | 17 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.410640 | 1,142,859 |
| 2029 | 18 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.389690 | 1,084,553 |
| 2030 | 19 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.369820 | 1,029,252 |
| 2031 | 20 | 1,588,712 | 583,811 | 135,293 | 1,171,600 | 408,700 | 3,888,117 | 0.350950 | 1,364,535 |
| 2032 | 21 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.333050 | 926,917 |
| 2033 | 22 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.316060 | 879,632 |
| 2034 | 23 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.299940 | 834,768 |
| 2035 | 24 | 1,588,712 | 617,633 | 219,543 | 66,600 | 408,700 | 2,901,189 | 0.284640 | 825,794 |
| 2036 | 25 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.270120 | 751,775 |
| 2037 | 26 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.256340 | 713,424 |
| 2038 | 27 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.243270 | 677,049 |
| 2039 | 28 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.230860 | 642,510 |
| 2040 | 29 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.219080 | 609,725 |
| 2041 | 30 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.207910 | 578,638 |
| 2042 | 31 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.197300 | 549,109 |
| 2043 | 32 | 1,588,712 | 617,633 | 219,543 | 66,600 | 408,700 | 2,901,189 | 0.187240 | 543,219 |
| 2044 | 33 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.177690 | 494,532 |
| 2045 | 34 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.168630 | 469,317 |
| 2046 | 35 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.160020 | 445,354 |
| 2047 | 36 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.151860 | 422,644 |
| 2048 | 37 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.144120 | 401,103 |
| 2049 | 38 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.136760 | 380,619 |
| 2050 | 39 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.129790 | 361,221 |
| 2051 | 40 | 1,588,712 | 617,633 | 219,543 | 1,171,600 | 408,700 | 4,006,189 | 0.123170 | 493,442 |
| 2052 | 41 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.116890 | 325,319 |
| 2053 | 42 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.110920 | 308,703 |
| 2054 | 43 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.105260 | 292,951 |
| 2055 | 44 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.099900 | 278,033 |
| 2056 | 45 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.094800 | 263,839 |
| 2057 | 46 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.089960 | 250,369 |
| 2058 | 47 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.085380 | 237,622 |
| 2059 | 48 | 1,588,712 | 617,633 | 219,543 | 66,600 | 408,700 | 2,901,189 | 0.081020 | 235,054 |
| 2060 | 49 | 1,588,712 | 583,811 | 135,293 | 66,600 | 408,700 | 2,783,117 | 0.076890 | 213,994 |
| 2061 | 50 | 1,588,712 | 1,030,873 | 530,330 | 66,600 | 680,132 | 3,896,648 | 0.072970 | 284,338 |
| | | 81,428,872 | 30,570,313 | 7,834,308 | 5,606,600 | 21,523,832 | 146,963,925 | | 52,687,297 |
| Total Annual Cost (50 Year Period of Analysis) | | | | | | | | 0.05798 | 3,055,000 |

**Table E-18**
**Average Annual Equivalent On-Farm Operation, Maintenance, and Replacement Costs**
**Alternative WS4B**
**Bayou Meto, Arkansas**
**(October 2004 Price Levels, 5.375% Discount Rate)**

| Fiscal Year | Number of Years Discounted | Reservoirs | Tail Water Recovery | Pipelines | Pumping Plants | Water Control Structures | Total | Value Factor @ 5.375% | Present Value of Total |
|---|---|---|---|---|---|---|---|---|---|
| 2006 | -5 | 24,112 | 3,358 | 14,685 | 18,355 | 8,704 | 69,214 | 1.299240 | 89,926 |
| 2007 | -4 | 78,364 | 10,914 | 47,726 | 59,654 | 28,288 | 224,946 | 1.232960 | 277,349 |
| 2008 | -3 | 132,616 | 18,469 | 80,768 | 100,953 | 47,872 | 380,677 | 1.170070 | 445,419 |
| 2009 | -2 | 186,868 | 26,025 | 113,809 | 142,251 | 67,456 | 536,409 | 1.110390 | 595,623 |
| 2010 | -1 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 1.053750 | 729,343 |
| 2011 | 0 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 1.000000 | 692,140 |
| 2012 | 1 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.948990 | 656,834 |
| 2013 | 2 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.900590 | 623,334 |
| 2014 | 3 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.854650 | 591,537 |
| 2015 | 4 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.811050 | 561,360 |
| 2016 | 5 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.769680 | 532,726 |
| 2017 | 6 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.730420 | 505,553 |
| 2018 | 7 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.693170 | 479,771 |
| 2019 | 8 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.657810 | 455,297 |
| 2020 | 9 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.624250 | 432,068 |
| 2021 | 10 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.592410 | 410,031 |
| 2022 | 11 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.562190 | 389,114 |
| 2023 | 12 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.533520 | 369,271 |
| 2024 | 13 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.506300 | 350,430 |
| 2025 | 14 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.480480 | 332,559 |
| 2026 | 15 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.455970 | 315,595 |
| 2027 | 16 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.432710 | 299,496 |
| 2028 | 17 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.410640 | 284,220 |
| 2029 | 18 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.389690 | 269,720 |
| 2030 | 19 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.369820 | 255,967 |
| 2031 | 20 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.350950 | 242,907 |
| 2032 | 21 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.333050 | 230,517 |
| 2033 | 22 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.316060 | 218,758 |
| 2034 | 23 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.299940 | 207,600 |
| 2035 | 24 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.284640 | 197,011 |
| 2036 | 25 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.270120 | 186,961 |
| 2037 | 26 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.256340 | 177,423 |
| 2038 | 27 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.243270 | 168,377 |
| 2039 | 28 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.230860 | 159,787 |
| 2040 | 29 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.219080 | 151,634 |
| 2041 | 30 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.207910 | 143,903 |
| 2042 | 31 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.197300 | 136,559 |
| 2043 | 32 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.187240 | 129,596 |
| 2044 | 33 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.177690 | 122,986 |
| 2045 | 34 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.168630 | 116,716 |
| 2046 | 35 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.160020 | 110,756 |
| 2047 | 36 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.151860 | 105,108 |
| 2048 | 37 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.144120 | 99,751 |
| 2049 | 38 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.136760 | 94,657 |
| 2050 | 39 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.129790 | 89,833 |
| 2051 | 40 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.123170 | 85,251 |
| 2052 | 41 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.116890 | 80,904 |
| 2053 | 42 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.110920 | 76,772 |
| 2054 | 43 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.105260 | 72,855 |
| 2055 | 44 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.099900 | 69,145 |
| 2056 | 45 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.094800 | 65,615 |
| 2057 | 46 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.089960 | 62,265 |
| 2058 | 47 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.085380 | 59,095 |
| 2059 | 48 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.081020 | 56,077 |
| 2060 | 49 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.076890 | 53,219 |
| 2061 | 50 | 241,120 | 33,580 | 146,850 | 183,550 | 87,040 | 692,140 | 0.072970 | 50,505 |
| | | 12,960,200 | 1,804,925 | 7,893,188 | 9,865,813 | 4,678,400 | 37,202,525 | | 14,767,226 |
| Total Annual Cost (50 Year Period of Analysis) | | | | | | | | 0.05798 | 856,000 |

**Table E-19**
**Summary of Average Annual Equivalent Costs**
**Bayou Meto, Arkansas**
**(October 2004 Price Levels, 5.375% Discount Rate)**

| Alternative | Interest | Sinking Fund | Operation, Maintenance, and Replacement | Total |
|---|---|---|---|---|
| | ($) | ($) | ($) | ($) |
| WS2A | 3,443,000 | 271,000 | 705,000 | 4,419,000 |
| WS2B | 4,044,000 | 318,000 | 810,000 | 5,172,000 |
| WS2C | 5,237,000 | 413,000 | 1,018,000 | 6,668,000 |
| WS3A | 22,942,000 | 1,805,000 | 3,807,000 | 28,554,000 |
| WS3B | 23,576,000 | 1,855,000 | 3,899,000 | 29,330,000 |
| WS3C | 24,833,000 | 1,954,000 | 4,016,000 | 30,803,000 |
| WS4A | 23,006,000 | 1,810,000 | 3,820,000 | 28,636,000 |
| WS4B | 23,640,000 | 1,860,000 | 3,911,000 | 29,411,000 |
| WS4C | 24,897,000 | 1,959,000 | 4,027,000 | 30,883,000 |
| WS5A | 23,052,000 | 1,814,000 | 3,820,000 | 28,686,000 |
| WS5B | 23,686,000 | 1,864,000 | 3,913,000 | 29,463,000 |
| WS5C | 24,943,000 | 1,963,000 | 4,037,000 | 30,943,000 |

## E-9. SUMMARY.

Table E-20 shows that Alternative WS4B is the plan that maximizes net economic benefits (NED plan). Its annual benefits exceed annual costs by $2,919,000 yielding a benefit to cost ratio of 1.10 to 1. All other plans are also economically justified. Alternative WS2B yields the most returns per dollar invested (highest benefit-to-cost ratio) with a BCR of 1.35 to 1.

## E-10. OPTIMIZATION.

a. On-Farm Features. The optimum conservation efficiency is 70%. The optimum conservation efficiency was determined the NRCS and is documented in the NRCS Appendix. The level of on-farm storage reservoirs was determined through a joint effort between the NRCS and the Memphis District. The optimum level of on-farm reservoirs is 8,832 acres when combined with any of the import systems studied. However, if no import systems were built, the largest acreage, or 14,544 acres, would be optimum (return the most net benefit).

b. Import System. The features associated with the 1,750 CFS system are the minimum required to meet an average year's unmet demand based on hydrologic modeling of supplying the average year's demand with the available excess flows in the Arkansas River. It also returns the greatest net economic benefit when combined with any of the three levels of on-farm features. The economic optimization was accomplished using a hydrologic and economic modeling of the historical un-met demands and available or excess flows in the Arkansas River. The results of this process establish that the 1,750 CFS import system is the optimum based on both supplying unmet demands and economic tradeoffs. Table E-20 presents the net or excess benefits for all of the alternatives taken into detailed economic analysis. Alternative WS4B is clearly the optimum or NED plan.

**Table E-20**
**Summary of First Costs and Average Annual Equivalent Benefits, Costs, Excess Benefits, and Benefit to Cost Ratios**
**Bayou Meto, Arkansas**
**(October 2004 Price Levels, 5.375% Discount Rate, $000)**

| Item | Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WS2A | WS2B | WS2C | WS3A | WS3B | WS3C | WS4A | WS4B | WS4C | WS5A | WS5B | WS5C |
| **First Cost** | | | | | | | | | | | | |
| On-Farm | 55,333 | 65,000 | 84,179 | 55,333 | 65,000 | 84,179 | 55,333 | 65,000 | 84,179 | 55,333 | 65,000 | 84,179 |
| Import System | | | | 300,781 | 300,781 | 300,781 | 301,771 | 301,771 | 301,771 | 302,492 | 302,492 | 302,492 |
| Total | 55,333 | 65,000 | 84,179 | 356,114 | 365,781 | 384,960 | 357,104 | 366,771 | 385,950 | 357,825 | 367,492 | 386,671 |
| **Annual Benefits** | 5,669 | 6,964 | 7,990 | 30,091 | 32,213 | 32,426 | 30,204 | 32,330 | 32,428 | 30,207 | 32,332 | 32,428 |
| **Annual Costs** | | | | | | | | | | | | |
| Interest | | | | 22,942 | 23,576 | 24,833 | 23,006 | 23,640 | 24,897 | 23,052 | 23,686 | 24,943 |
| On-Farm | 3,443 | 4,044 | 5,237 | 3,628 | 4,262 | 5,519 | 3,628 | 4,262 | 5,519 | 3,628 | 4,262 | 5,519 |
| Import System | | | | 19,314 | 19,314 | 19,314 | 19,378 | 19,378 | 19,378 | 19,424 | 19,424 | 19,424 |
| Sinking Fund | | | | | | | | | | | | |
| On-Farm | 271 | 318 | 413 | 285 | 335 | 434 | 285 | 335 | 434 | 285 | 335 | 434 |
| Import System | | | | 1,520 | 1,520 | 1,520 | 1,525 | 1,525 | 1,525 | 1,529 | 1,529 | 1,529 |
| Operation and Maintenance | | | | | | | | | | | | |
| On-Farm | 705 | 810 | 1,018 | 745 | 856 | 1,076 | 745 | 856 | 1,076 | 745 | 856 | 1,076 |
| Import System | | | | 3,062 | 3,043 | 2,940 | 3,075 | 3,055 | 2,951 | 3,075 | 3,057 | 2,961 |
| Total | 4,419 | 5,172 | 6,668 | 28,554 | 29,330 | 30,803 | 28,636 | 29,411 | 30,883 | 28,686 | 29,463 | 30,943 |
| **Excess Benefits** | 1,250 | 1,792 | 1,322 | 1,537 | 2,883 | 1,623 | 1,568 | 2,919 | 1,545 | 1,521 | 2,869 | 1,485 |
| **BCR** | 1.28 | 1.35 | 1.20 | 1.05 | 1.10 | 1.05 | 1.05 | 1.10 | 1.05 | 1.05 | 1.10 | 1.05 |

## E-11. SENSITIVITY.

Three areas of sensitivity were identified which could affect the economic benefit of the project: (1) participation in the on-farm portion of the project, (2) implementation of additional on-farm conservation features under future without-project conditions, and (3) participation in the total project by the local farmers and landowners. These are addressed in the following.

a. On-Farm Participation Rate. A sensitivity analysis was conducted to assess the effects on the project's economic justification of differing participation rates in the on-farm portion of the project. The concern is that area landowners may be unable or unwilling to make the investments or changes in their farming operations necessary for the on-farm component to provide the economic benefit as presently designed. There is certainly an economic incentive for individual landowners to participate since they will not be able to reduce their demand for irrigation water if they do not participate. Larger portions of their cropland would be forced to convert to dryland practices causing significant economic losses. However, not all landowners will have to participate for the project to provide the level of economic benefit presently estimated. Some may already have sufficient land treatment practices in place. The project only needs enough participation to increase irrigation efficiencies from 60% to 70%. Some landowners may opt for even higher efficiencies. Only an average of 70% must be achieved for the project to accrue the expected benefit. A range of participation rates from zero to 100% was considered. The annual costs decrease along with the annual benefits as the participation rate decreases. The results of the sensitivity analysis are presented in Table E-21. The project is economically justified with participation rates at or above 52.3%. Even at zero percent participation the benefit-to-cost ratio approaches 0.9 to 1.

b. Future Without-Project Conservation. A sensitivity analysis was also conducted to assess the effects of increased efficiency levels under future without-project conditions. Interviews of area farmers and landowners by NRCS personnel revealed a strong resistance to the construction of additional conservation measures absent additional sources of irrigation water and any cost sharing incentives. Construction of additional measures on the 67,805 irrigated acres remaining after 2019 would require approximately $15,200,000 while yielding enough additional water to irrigate only 11,300 new acres. A capital investment of $15 million would be almost impossible during a time when farmers are undergoing radical financial changes as their aquifers are exhausted and they are forced to convert to less profitable dryland practices.

Cost sharing for these measures could possibly be available through existing NRCS programs. However, NRCS's budgets are limited and the Bayou Meto area would face stiff competition with other areas these limited funds. Because the Bayou Meto area's current conservation level of 60% is higher than most other areas in the State, the NRCS would likely invest in other less efficient areas which would yield higher rates of return on their expenditures. Absent NRCS cost sharing, any new investment would have to be financed entirely by area farmers and landowners. Since their farming operations will be much less profitable and significantly more risky, lending institutions would be much less willing to underwrite these investments. Because of these obstacles, implementation of new conservation measures was considered highly unlikely under future without-project conditions.

**Table E-21**
**Annual Benefits, Costs, Excess Benefits, and Benefit to Cost Ratios**
**Various Levels of Participation in the On-Farm Portion of Project Alternative WS4B**
**Bayou Meto, Arkansas**
**(October 2004 Price Levels, 5.375% Discount Rate, $000)**

| Level of Participation | Annual Benefit | Annual Cost | Excess Benefit | Benefit to Cost Ratio |
|---|---|---|---|---|
| 100% | 32,330 | 29,411 | 2,919 | 1.10 |
| 90% | 31,173 | 28,866 | 2,307 | 1.08 |
| 80% | 30,015 | 28,320 | 1,695 | 1.06 |
| 70% | 28,858 | 27,775 | 1,083 | 1.04 |
| 60% | 27,700 | 27,230 | 470 | 1.02 |
| 52.3% | 26,811 | 26,811 | 0 | 1.00 |
| 50% | 26,543 | 26,685 | -142 | 0.99 |
| 40% | 25,385 | 26,139 | -754 | 0.97 |
| 30% | 24,228 | 25,594 | -1,366 | 0.95 |
| 20% | 23,070 | 25,049 | -1,979 | 0.92 |
| 10% | 21,913 | 24,503 | -2,590 | 0.89 |
| 0% | 20,754 | 23,958 | -3,204 | 0.87 |

A sensitivity analysis was performed to address the possibility of more conservation features being built, if funding for the above conservation features could be obtained. It was assumed that these features would be built using the same construction schedule as Alternative WS2B. Including these features in the future without-project condition would reduce the annual benefits by $2,071,000 resulting in benefits of $30,259,000 annually. This decrease in benefit would also be accompanied by annual cost decrease since the conservation levels would have already been built. This would result in an annual cost of $28,354,000, a decrease of $1,057,000, a benefit to cost ratio of 1.07 and excess benefits of $1,905,000.

c. Participation in Total Project. A sensitivity analysis was conducted to assess the effects on the project's economic justification for differing participation rates in the total project by the local farmers and landowners. The concern is that they may be unable or unwilling to participate in what is seen by some as a voluntary project. If they do not participate, the project may be unable to deliver the economic benefit as presently designed. Again, the economic incentive exists for them to participate since larger portions of their cropland would be forced to convert to dryland practices causing significant economic losses. However, not all landowners will have to participate for the project to be a sound investment. A range of participation rates from 50% to 100% was considered. The annual costs decrease along with the annual benefits as the participation rate drops. The results of the sensitivity analysis are presented in Table E-22. The project is economically justified at a participation rate at or over 83.4%. At 83.4% the project has a unity benefit to cost ratio.

For this section several assumptions were made. If individual farmers or landowners would not participate in the project in any way their on-farm costs would be excluded from the project. Also no water sales would be made to the non-participators so no benefit was claimed on their lands. If possible their imported irrigation water would be sold to others in the project during "dry" years and a benefit claimed. However, during "wet" years their water would remain unsold and no benefit would be claimed. If their water was unsold then the operation and maintenance costs for the import system would also be reduced since the water would not be pumped. The import system size was held constant to service the whole project area's needs so the import system interest and sinking fund costs remained unchanged.

**Table E-22**
**Annual Benefits, Costs, Excess Benefits, and Benefit to Cost Ratios**
**Various Levels of Participation in the Total Project**
**Alternative WS4B**
**Bayou Meto, Arkansas**
**(October 2004 Price Levels, 5.375% Discount Rate, $000)**

| Level of Participation | Annual Benefit | Annual Cost | Excess Benefit | Benefit to Cost Ratio |
|---|---|---|---|---|
| 100% | 32,330 | 29,411 | 2,919 | 1.10 |
| 90% | 29,920 | 28,681 | 1,239 | 1.04 |
| 83.4% | 28,175 | 28,175 | 0 | 1.00 |
| 80% | 27,295 | 27,920 | -625 | 0.98 |
| 70% | 24,431 | 27,125 | -2,694 | 0.90 |
| 60% | 21,354 | 26,299 | -4,945 | 0.81 |
| 55% | 19,750 | 25,876 | -6,126 | 0.76 |
| 50% | 18,110 | 25,449 | -7,339 | 0.71 |

# GRAND PRAIRIE REGION AND BAYOU METO BASIN, ARKANSAS PROJECT

# BAYOU METO BASIN, ARKANSAS

# GENERAL REEVALUATION REPORT AND PRELIMINARY DRAFT ENVIRONMENTAL IMPACT STATEMENT

# VOLUME 11 APPENDIX F

# ECONOMICS FLOOD CONTROL COMPONENT

# ADDENDUM TO THE ECONOMICS OF THE FLOOD CONTROL COMPONENT OF COMBINED PLAN

## INTRODUCTION

The purpose of this section of the addendum is to address the areas of change in Appendix F for the recommended (combined) plan. These changes are presented for the selected plan only and not all of the plans considered. The areas of change are:

(1) Discount Rate,
(2) Price Level of the Project Costs, and
(4) A Change in the Mitigation Requrements.

It was decided that only the selected plan would be presented in this section since all three of the above changes were viewed as relative. They would have the same effect on all of the alternatives presented in Appendix F and would not change the selected plan.

## DISCOUNT RATE

Since completion of the draft report, the current discount rate changed from 5.375% to 5.125%. Both of the following sections on changes in agricultural price levels and project cost price levels will use the now current discount rate of 5.125%

## PRICE LEVEL OF THE POJECT COSTS

The price level of the project costs used in Appendix F was April 2004. The price level of the project costs has been revised to October 2005 levels. This revision caused the cost to increase from $58,628,000 to $61,676,600. Table F-35 shows that the annual interest and sinking fund costs increased correspondingly due to the increase. The increase in annual cost is also partially offset due to the decrease in the project discount rate. This is reflected in the annual operation and maintenance cost decreasing approximately $6,000 annually. Total annual costs increased from $4,217,000 to $4,234,300 or an increase of approximately $17,000.

Table F-35
FIRSTS COSTS AND ANNUAL COSTS
PLAN 3A

| Item | April 2004 Price Levels, 5 3/8% | October 2005 Price Levels, 5 1/8% |
|---|---|---|
| First Costs a_/ | 58,628,000 | 61,676,600 |
| Interest During Construction b_/ | 6,456,000 | 6,458,000 |
| Total Investment | 65,107,000 | 68,134,600 |
| Annual Costs | | |
| Interest and Sinking fund | 3,774,000 | 3,804,500 |
| Operation and Maintenance | 436,000 | 429,800 |
| Major Rehabilitation (Channels and Weirs) | 7,000 | 0 |
| Total Annual Costs | 4,217,000 | 4,234,300 |

a_/ Costs for work in Two Bayou area are excluded.
b_/ Based on the use of estimated construction schedule expenditures over a 50-year period of analysis.

## CHANGE IN MITIGATION REQUIREMENTS

The mitigation costs used in Table F-37 of Appendix F actually included restoration costs. These costs should be excluded from the Flood Control Component costs and instead included in the Waterfowl Component costs. This addendum presents both sets of costs in Table F-37 of this addendum. The costs decreased from $68,808,900 to $61,676,600. This decrease is partially offset by the increase in price levels from April 2004 to October 2005. The annual costs decreased proportionately from $5,023,300 to $4,234,300. Also presented in Table F-37 are the annual benefits. These benefits increased slightly from $5,263,000 to $5,559,000 primarily due to the change in discount rate. The benefit-to-cost ratio increased from 1.05 to 1 to 1.31 to 1.

Table F-37
PLAN SELECTION/ECONOMIC SUMMARY
WITHOUT TWO PRAIRIE BAYOU (REACH 6) WORK COSTS/BENEFITS

| Item | April 2004 Price Levels, 5 3/8% | October 2005 Price Levels, 5 1/8% |
|---|---|---|
| First Costs a_/ | 68,808,900 | 61,676,600 |
| Annual Costs b_/ | 5,023,300 | 4,234,300 |
| Annual Benefits | 5,263,000 | 5,559,000 |
| Excess Benefits over costs | 239,700 | 1,324,700 |
| Benefit Cost Ratio | 1.05 | 1.31 |

a_/ Includes mitigation and waterfowl management features.
b_/ Annualized over a 50-year period of analysis.

The costs in Table F-37 are not proportioned between the Flood Control Component and the Waterfowl Management Component. When the joint costs are allocated between the two purposes, the Flood Control Component costs decrease to $40,169,000. The annual costs decrease proportionately to $2,510,000. The benefit-to-cost ratio increases to 2.21 to 1. This information is presented in Table F-38 of this addendum.

Table F-38
FLOOD CONTROL COMPONENT OF COMBINED PLAN
WITHOUT TWO PRAIRIE BAYOU (REACH 6) WORK COSTS/BENEFITS

| Item | April 2004 Price Levels, 5 3/8% | October 2005 Price Levels, 5 1/8% |
|---|---|---|
| First Costs a_/ | 53,433,000 | 40,169,000 |
| Annual Costs b_/ | 3,886,500 | 2,510,000 |
| Annual Benefits | 5,263,000 | 5,559,000 |
| Excess Benefits over costs | 1,376,500 | 3,049,000 |
| Benefit Cost Ratio | 1.35 | 2.21 |

a_/ Includes mitigation and waterfowl management features.
b_/ Annualized over a 50-year period of analysis.

BAYOU METO BASIN, ARKANSAS
FEASIBILITY STUDY
APPENDIX F
ECONOMIC ANALYSIS (FLOOD CONTROL)

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## LIST OF ATTACHMENTS

BAYOU METO BASIN, ARKANSAS
FEASIBILITY STUDY

APPENDIX F
ECONOMIC ANALYSIS (FLOOD CONTROL)

## SECTION 1 - INTRODUCTION

### GENERAL

1. This appendix presents the economic analyses pertaining to water resources improvements for flood control proposed for the Bayou Meto Area. The Bayou Meto Area is located in east-central Arkansas in Faulkner, Pulaski, Lonoke, Arkansas, Prairie, and Jefferson Counties. These analyses address the economic feasibility of water resources improvements and aid in selecting a recommended water resources improvement project. Benefit evaluations are based on current hydrologic analyses, land use and survey data, detailed cost data, extensive engineering and economic technical data, and other current information. Information and computations presented describe the evaluation methodology utilized in determining annual benefits/costs for the improvements considered. These evaluations are based on an assumed 50-year growth period (economic development), an expected project economic life of 50 years, a Federal discount rate of 5-3/8 percent, and an estimated project completion date of 2009.

2. Information presented consists of a description of the flood plain, discussion of properties affected by flooding, and discussion of benefits/impacts associated with the various plans of improvement considered.

3. Costs for each plan of improvement were computed applying April 2004 price levels. Average annual benefits were compared to applicable average annual costs to determine economic feasibility of the various plans of improvement considered for possible implementation.

4. Economic evaluations and analyses were accomplished comparing the base (without-) to with-project conditions. With-project conditions as used in analyses of this appendix denote conditions with the National Economic Development (NED)/National Environmental Restoration (NER) plan, and in this appendix, the NED/NER plan (determined to be Alternative FC3A) is referred to as the recommended plan. The NED/NER plan is the plan that produces the greatest excess benefits over costs or net benefits and the plan with the greatest beneficial impacts from environmental/restoration measures. The without-project condition ("base hydrologic conditions") reflects conditions expected to prevail in the area in the absence of any additional water resources improvements and is the same as the "no-action" alternative.

5. Detailed descriptions of alternative water resources improvement plans considered for this study are presented in the Main Report.

## STUDY AREA

### LOCATION/TOPOGRAPHY/TRIBUTARIES

6. The Bayou Meto Basin is located in the east-central portion of the State of Arkansas in Faulkner, Pulaski, Lonoke, Arkansas, Prairie, and Jefferson Counties (see Plate I-01, Appendix I, Hydraulics). The area is generally bounded on the north by Wattensaw Bayou, bounded on the east by the Grand Prairie Area, on the south by the Arkansas River, and on the west by the Arkansas River and Plum Bayou. The Bayou Meto Basin embraces 1,050 square miles. Of this area, approximately 180 square miles are hill lands in the upper reaches of the basin and the remaining 870 square miles are comparatively flat alluvial valley lands. The watershed is long and narrow, being approximately 86 miles in length and 25 miles in the greatest width. The principal drainage arteries of the area are Bayou Meto and Little Bayou Meto and their tributaries. Characteristics of the tributary streams of the Bayou Meto Basin are shown in Table F-1. Drainage from the Bayou Meto Basin passes through the north bank Arkansas River levee, which forms the southern boundary of the Basin, through a series of floodgates.

TABLE F-1
STREAM CHARACTERISTICS

| Stream | Drainage Area (square mile) | Length (mile) | Stream Slope (feet per mile) |
|---|---|---|---|
| Bayou Meto | 995 | 157.0 | 0.3-1.0 |
| Little Bayou Meto | 432 | 17.0 | 0.8 |
| Salt Bayou | 104 a/ | 21.0 | 0.8 |
| Caney Bayou | 34 a/ | 12.0 | 1.6 |
| Wabbaseka Bayou | 55 a/ | 45.0 | 1.0-2.0 |
| Bradley Slough | 76 a/ | 17.0 | 1.0 |
| Flat Bayou | 8 a/ | 15.0 | 3.9 |
| Baker Bayou | 24 a/ | 41.0 | 0.6 |
| Kings Bayou | 10 a/ | 13.0 | 1.2 |
| Indian Bayou | 70 a/ | 20.0 | 2.2 |
| Two Prairie Bayou | 225 b/ | 66.0 | 0.8 |
| Mill Bayou | 135 b/ | 37.0 | 0.9 |
| Crooked Creek | 93 b/ | 63.0 | 0.7 |

a/ Included in Little Bayou Meto.
b/ Included in Bayou Meto.

## DESCRIPTION OF PROJECT AREA AND STUDY AREA

### General

7. Approximately 60 square miles of the Bayou Meto Basin now protected by the north bank Arkansas River levee are not naturally tributary to Bayou Meto. These streams, originally tributary to the Arkansas River, drain relatively minor areas and are now connected to the Arkansas River by means of floodgates constructed through the levee. These streams are now interconnected with Bayou Meto and to tributaries by means of manmade canals.

8. For purposes of this study, the project area is the area which would be directly impacted by implementation/operation of a water resources improvement project, which is the area subject to flooding by a 100-year frequency flood event. The project area is shown on Plate I-02, Appendix I, Hydraulics, which also presents the boundaries of the 11 hydrologic reaches established for evaluation of the proposed Bayou Meto water resources improvements. Arkansas counties which are within or mostly within the project area boundary include Lonoke and Jefferson Counties. Major agricultural crops produced in the area are soybeans and rice. Baitfish/catfish farming operations also contribute significantly to total farm products sold.

### Climate

9. The Bayou Meto area has a temperature climate. Summers are long and warm and winters are short and moderately cold. The mean annual temperature for the area is 62 degrees F with a mean of 82 degrees F for summer and 44 degrees F for winter (measured at Stuttgart, Arkansas). Maximum temperatures for the area have varied from 112 degrees F to -10 degrees F. Snowfall is generally light, averaging about 3.7 inches annually and usually melts in a few days. The date of the last killing frost in the spring is 28 March and the first in the fall, 30 October, giving an average growing season of 217 days. The distribution of rainfall in the area is relatively uniform, with an average annual total of approximately 50 inches, with an average of 11 inches occurring during the period June-August. The maximum average rainfall over the basin for the period 1908 through 1957 was 70.3 inches which occurred in 1945 and the minimum was 32.2 inches in 1943. Evaporation records for the area, maintained since 1929, indicate that the average annual evaporation rate from reservoirs and other water surfaces is about 35.7 inches annually, with 15 inches occurring during June-August.

Natural Resources

10. Highly productive agricultural lands, wildlife, forested areas, lakes, reservoirs, and streams and wetland areas are the area's most valuable natural resources. Agricultural lands, which account for more than three-fourths of the total land use, are the major resource. The area's economy was based and is still dependent upon its agricultural industry. Major crops include cotton, soybeans, and rice. Other crops include corn, wheat, and grain sorghum. Baitfish and catfish production is a significant part of the area's total economy. Streams, lakes, and reservoirs and wetland areas provide habitat for wildlife and are used by area residents in outdoor sports activities. Wetlands are scattered throughout the study area; however, the most significant area is the Bayou Meto Wildlife Management Area (WMA) located in the southern part of the area. The Bayou Meto WMA is within a major waterfowl flyway. The WMA is a wintering/feeding area for ducks. Forest land consists primarily of the oak-hickory and oak-gum-cypress types. Bottom-land hardwood areas support good populations of deer, turkey, small game, and nongame species.

Economic Development

11. A description of the economic structure of the Bayou Meto area is provided by including economic and demographic data for the Bayou Meto economic base area. The economic base area includes the political boundary of Lonoke and Jefferson Counties, Arkansas. These counties are completely within or mostly within the Bayou Meto Area hydrological boundary and are considered representative of the project area. Small portions of other counties, which are within the outer limits of the hydrologic boundary, were not included as part of the base area since their inclusion would result in a misrepresentative economic analysis. Growth and development of the economic base area are comparable to other sections of east-central Arkansas. Since the 1930's, the base area has suffered population losses, primarily from rural areas. The population has become more urbanized and, in recent years, has experienced some industrial growth. However, agriculture is still the most important sector of the total economy. Growth in industrial activity and advanced technology in the agricultural industry have been the major factors contributing to increased personal income of area residents.

EXISTING FLOOD PLAIN DEVELOPMENT

12. Surveys were conducted to identify and categorize the existing land use and development in the Bayou Meto Project Area. Land use data and other information were obtained from applicable county agricultural workers, available Geographic Information System (GIS) information, and Natural Resources Conservation Service (NRCS) personnel. Other sources of required information on overall land use included data from the Economic Impact Forecast System, Bureau of the Census, Bureau of Labor Statistics, Bureau of Economic Analysis, County and City Data Book, U.S. Census of Agriculture, and University of Arkansas.

13. Current GIS information indicates there are about 641,000 total acres in the Bayou Meto project area (11 hydrologic reaches). The area consists mostly of agricultural farmlands. Approximately 72 percent of the area is cleared agricultural land used for agricultural crops such as rice, cotton, soybeans, wheat, grain sorghum, etc. (mostly irrigated crops). Approximately 24 percent of the project area is in forested agricultural lands except for the Bayou Meto WMA which is mostly forested and is owned by the Arkansas Game and Fish Commission (AGFC). Historically, favorable agricultural characteristics such as climate, soil productivity, etc., have favored agricultural development in the Bayou Meto area. Urban/built-up land use (cities, towns, residential areas, streets, etc.) within the Bayou Meto project area account for about 0.6 percent of the project area. Some of the major towns include Altheimer, Carlisle, England, Gillett, Humphrey, and Wabbaseka. Transportation use (roads, highways, road right-of-way, etc.) accounts for about 0.6 percent of the project area. Area streams and lakes occupy about 0.8 percent of the total. The remaining 2.5 percent of the project area is occupied by baitfish/catfish ponds.

14. "Urban" areas as used in this study denote a category of flood damage/benefits and do not indicate that a town is urban according to the Bureau of Census definition; i.e., a town with a population of 2,500 persons or greater denotes an urban area. However, for purposes of this study, all residences, commercial buildings, and other structures located within the cities, towns, and smaller communities are identified as urban development. All residences, commercial buildings, and other structures located outside the urban areas and located within the Bayou Meto Project Area are identified as rural development. Agricultural lands comprised the majority of the total land use. Total other nonurban uses include forest lands, water bodies, wetlands, and barren and other lands. For purposes of the economic analysis of water resources improvements considered for the area, urban/rural development has been categorized into seven specific types of structures: residential, commercial, professional, industrial, public, semipublic, and warehouses. Other urban land use properties include rights-of-way, highways, roads, bridges, railroads, airports, pipelines, utilities, communications, park lands, other appurtenances, and open space.

## MOST PROBABLE FUTURE LAND USE

15. Future land use in the Bayou Meto Area flood plain without or with implementation of water resources improvements is expected to remain in agricultural uses. Existing trends toward increased reliance on manufacturing and lesser importance of agriculture are expected to continue.

16. Urban development in the urban/built-up areas is likely to increase in the developed areas and will likely continue to expand and change, resulting in conversion of fringe urban-agricultural lands to residential, commercial, public, and industrial uses.

17. Existing land use patterns in the Bayou Meto Area are anticipated to continue in the future. Agricultural production is expected to continue, but could be adversely impacted dependent upon the availability of adequate supplemental water. Ground-water sources are being depleted rapidly. Industrial diversification continues within the area. Urbanization should expand at a moderate rate in the areas bordering the existing urban areas. Any level of flood protection would reduce the financial risks involved in rural and/or urban development. Only minor changes are expected in future rural land use within the project area. Current agricultural use is expected to continue. Reduction in the risk of flooding will create opportunities for farmers to more fully achieve production potential with some shifts in usage such as conversion of soybean land to cotton, rice, catfish ponds, etc. Due to the similarity of land use within the 25-, 50-, 100-year, and Standard Project Flood frequencies delineation and because the area is primarily an agricultural area, it is impractical to present land use data for each delineation. Land use presented above would be applicable to each flood frequency delineation shown.

# SECTION 2 - PROBLEMS AND NEEDS

## GENERAL

## PROBLEMS

18. Major problems resulting from frequent flooding in the Bayou Meto Area include (a) flood damage to agricultural crops, noncrop items, and public roads and bridges, (b) a restriction on the part of farm operators to apply improved production inputs and techniques, and (c) flooding resulting from quick concentration of rainfall runoff combined with the inadequacy of the existing channel systems to remove floods from the low-lying areas and flows from the upstream areas. Backwater flooding occurs in the southern part of the area when high Arkansas River stages (when floodgates are closed) cause ponding. Extended durations of flooding caused by the changed natural flooding regime (due to the construction of the Arkansas River Levee,

construction of local drainage ditches, canals, etc.) are causing the destruction of bottom-land hardwoods in the project area. An analysis of the agricultural area subject to flooding indicates that damages to agricultural acreages not inundated, but inaccessible, or acreages which could not be economically farmed during the periods of interior flooding would be insignificant.

## CHARACTERISTICS OF FLOODING

19. Flooding characteristics consist of frequency, duration, time of year, and depth of flooding as well as velocity, sediment load, etc. In the Bayou Meto area, floods occur primarily in the first and second quarters of the year (January through June), but can occur any time. On the average, flood duration ranges from a low of 1 day to a high of 97 days (1957 and 1973). The frequency of occurrence of flooding is about two times annually. Flood events are frequent and relatively large as reflected by the 121,420 cleared and wooded acres flooded by the annual (1-year) frequency flood event. A 5-year frequency flood event would inundate 204,400 cleared and wooded acres.

20. The total area subject to flooding by the 100-year frequency flood is 288,630 acres. Sixty-three percent of the total area inundated consists of cleared cropland acres (Table F-2). The remainder (37 percent) is in woodlands. During the 1949-1997 period, the maximum number of acres flooded occurred in the spring of 1973.

TABLE F-2
AREA FLOODED BY SELECTED FLOOD FREQUENCIES
BASE (WITHOUT-PROJECT) CONDITIONS
(Thousands of Acres)

| Frequency | | Area Flooded | | | | |
|---|---|---|---|---|---|---|
| Percent Chance of Occurrence | Year | Cleared | | Wooded | | Total Acres |
| | | Acres | Percent | Acres | Percent | |
| .01 | 100 | 182 | 63 | 107 | 37 | 289 |
| .02 | 50 | 171 | 62 | 105 | 38 | 276 |
| .04 | 25 | 157 | 61 | 101 | 39 | 258 |
| .10 | 10 | 138 | 59 | 96 | 41 | 234 |
| .20 | 5 | 116 | 56 | 89 | 44 | 205 |
| .50 | 2 | 84 | 53 | 74 | 47 | 158 |
| 1.00 | 1 | 62 | 51 | 59 | 49 | 121 |

SOURCE: Stage-area/stage-frequency data. Excludes acreages in catfish farms.

21. Approximately 312,712 total acres are inundated on an average annual basis in the Bayou Meto Area under base (without-project) conditions. Fifty-three percent (164,885 acres) of this total area flooded are cleared cropland acres.

22. The following plates illustrate, for base (without-project) and with-project conditions, the 1-year frequency flood (Plate I-35); the 10-year frequency flood (Plate I-36); and the 100-year frequency flood (Plate I-37).

## FLOOD SEASONS, DURATION, AND FREQUENCY OF OCCURRENCE

23. Three important factors which affect flood losses to agricultural lands are time of year, duration, and frequency of flooding. Frequent or intermittent flooding can occur any time of year. However, flood records indicate that the majority of the floods occur during the cropland preparation and spring planting months (January-June). Flood duration varies from a low of 1 day to a high of 97 days. Table F-2 presents the amount of cleared, wooded, and total acres flooded at selected frequencies of flooding for base (without-project) conditions.

## DEVELOPMENT AFFECTED BY FLOODING

24. Damageable properties and activities within the Bayou Meto Area subject to flooding consist of both nonagricultural and agricultural development. Nonagricultural development affected by flooding includes public roads and bridges. Flood damage assessment/ analysis indicated that residences, etc., in urban/built-up areas receive only negligible impacts/damages from flooding. Various public roads and bridges in the project area receive damages from flooding. Agricultural development affected by flooding includes the irrigated and nonirrigated crops produced on area farms (cotton, soybeans, rice, wheat, grain sorghum, etc.), noncrop farm development (farm drainage ditches, farm roads, land leveling, land forming, fences, farm supplies, irrigation systems, grain bins, etc.), and development associated with baitfish/catfish farming operations.

## NEEDS

25. Section 4 of this report, along with problems defined above, describes the flood problems in the area, reflecting a definite need for the alleviation or reduction of flooding. Flood damage reduction, whether full or partial, would benefit all sectors in the project area, thereby contributing to the total well-being of area residents and facilitating improvements to the national, regional, and local economies. There is a need to maintain and preserve valuable remaining waterfowl wintering/feeding habitat in the Bayou Meto area and a need to provide measures which would allow for water management within the WMA to prevent the destruction of bottom-land hardwoods. The Bayou Meto WMA is located within a major waterfowl flyway.

## SECTION 3 - ALTERNATIVE FLOOD CONTROL PLANS OF IMPROVEMENT CONSIDERED

### GENERAL

26. A number of flood damage reduction measures were addressed in this feasibility study. Structural as well as nonstructural measures were considered to reduce flood damages. Each alternative was formulated to reduce or alleviate flood problems and enhance the various opportunities in the economic, environmental, and social elements of the project area. Also, the no-action alternative was addressed.

### NO-ACTION

27. The no-action alternative was considered as a potential alternative in seeking and evaluating measures for the project area. However, the no-action approach would not meet the objective to alleviate or reduce flooding. Frequent flooding of large areas of agricultural farmlands would continue. The area would continue to suffer from severe annual flooding events and flood-related losses, and residents would experience adverse social impacts from the constant threat and inconveniences from flooding.

### NONSTRUCTURAL ALTERNATIVES

28. Various nonstructural measures to alleviate or reduce flood damages to development located within the Bayou Meto Area were also addressed. These measures consisted of (a) flood forecasting/warning systems, (b) flood plain zoning ordinances, regulations, and building codes, (c) relocation/evacuation of flood-prone structures from flood plains, and (d) flood-proofing measures.

### FLOOD FORECASTING/ ZONING
### FLOOD INSURANCE

29. Flood forecasting/warning is conducted in the flood plain. Flood insurance is available for flood-prone structures and crop insurance is also available. The National Flood Insurance Program (NFIP) allows property owners to purchase flood insurance at subsidized rates and mandates the county/city governments to adopt and enforce flood plain regulations that require all future development to be above the 100-year frequency flood level. Crop insurance provides some protection against natural disasters such as drought, floods, etc.

RELOCATION/FLOODPROOFING

30. Since no structures were identified that currently receive significant flood damages, no alternatives were needed to address this problem.

REFORESTATION (FEATURE)

31. A nonstructural reforestation measure was analyzed for this study (see Attachment C, paragraphs 1-11). This feature will be included with the Recommended Plan. This nonstructural (reforestation) measure would provide an effective means for eliminating flood damages to agricultural crop and noncrop items within the area encompassed by a 2-year frequency flood event (low-lying acres). The measure would involve purchase in fee or purchase easement on cleared cropland within the 2-year frequency flooded area (frequently flooded area, estimated at 67,364 acres). These acres would be taken out of crop production for the economic life of the project and reforested with bottom-land hardwoods. The reforestation with bottom-land hardwoods and management would ensure maximum benefit to area wildlife resources.

STRUCTURAL FLOOD CONTROL ALTERNATIVES

32. Various structural alternatives were considered for potential implementation in the Bayou Meto Area. The alternatives included several channel improvement plans and channel improvement/pumping plant plans. Alternatives were eliminated in the early screening stage of the study for various reasons (see Main Report). Only general descriptions of the detailed structural plans for this analysis are presented in the following paragraphs. Detailed information for these plans is presented in the Main Report. The major task in this evaluation was to devise alternative flood control plans compatible with imported irrigation water impacts which would provide significant reductions in flood damages, be environmentally sensitive, and be economically feasible. Additional detailed information concerning the various alternative plans considered is presented in the Main Report.

33. This evaluation included economic analysis of four alternative structural flood control plans which were analyzed in detail for the area to more appropriately address flood control needs/opportunities. These four alternative plans are identified as Alternative Plans FC2, FC2A, FC3A, and FC3B. Major features of Alternative Plans FC2 and FC2A consist of channel cleanout and enlargement in 7 of the 11 hydrologic reaches of the Bayou Meto Area. Major features of Alternative Plan FC2A include the same features as Alternative Plan FC2 except that

channel work in Reaches 4, 5, and 11 would be sized to accommodate the import of irrigation water. Alternative Plan FC3A would consist of the same channel work as for Alternative Plan FC2A and also includes construction of a 1,000-cubic-foot-per-second (cfs) pumping plant. The pumping plant for Plan FC3A would reduce flooding in Reaches 1, 7, and 8. For this study, Alternative Plan FC3A was determined to be identified as the NED/Recommended Plan due to benefits provided by the plan and is the plan preferred by local interests (see Section 6). Alternative Plan FC3B has the same features and impacts the same reaches as Alternative Plan FC3A except that Plan FC3B would have a pumping plant with a 3,000-cfs capacity. Each alternative plan also includes an associated mitigation plan to offset the potential fish and wildlife losses which is estimated to result from each flood control plan considered.

PLAN FC2

34. Alternative Plan FC2 consists of selected channel cleanout improvement in the Bayou Meto/Little Bayou Meto system (including varying bottom widths at the upstream limit of channel improvement). Work in Reach 3 involves construction of a diversion channel, designed to divert floodflows from a large baitfish production area, as well as water control structures and grade control structures on affected streams.

PLAN FC2A

35. Alternative Plan FC2A would provide for the same selected channel improvement/enlargement dimensions in the Bayou Meto/Little Bayou Meto system as for Plan FC2, except channel enlargements would be construed in Reaches 4, 5, and 11 to accommodate the import of irrigation water. Plan FC2A will also include construction of water control structures and grade control structures on affected streams.

PLAN FC3A

36. Plan FC3A would entail the same selected channel improvement/enlargement dimensions in the Bayou Meto/Little Bayou Meto system as for Plan FC2A. In addition to the selected channel cleanout and enlargement proposed for Alternative Plan FC2A, a 1,000-cfs pumping plant would be constructed near the mouth of Little Bayou Meto. Operation of the pump would reduce flooding in Reaches 1, 7, and 8. In association with construction of the proposed pumping plant, a channel would be constructed in Reach 8 to facilitate flows to the pumping plant. Plan FC3A includes construction of water control structures and grade control structures on affected streams.

PLAN FC3B

37. Construction of Plan FC3B would entail the same selected channel improvement/enlargement dimensions in the Bayou Meto/Little Bayou Meto system as for Plan FC3A. Construction of Plan FC3B would include water control structures and grade control structures on affected streams.

38. In addition to selected channel cleanout/enlargement proposed for Alternative Plan FC3B, a 3,000-cfs pumping station would be constructed near the mouth of Little Bayou Meto. Operation of the 3,000-cfs pumping station would reduce flooding in Reaches 1, 7, and 8. An auxiliary channel would also be constructed in Reach 8 to facilitate flows to the pumping plant.

## SECTION 4 - FLOOD DAMAGES

### GENERAL

39. Field surveys, field investigations, analysis of GIS data and office studies were used to obtain data and information regarding the various types of development impacted by flooding in the Bayou Meto Area and the extent and character of flooding and flood damages. This analyses of alternative flood control plans were conducted for without- and with-project conditions. Without-project conditions reflect base conditions in the project area as of 2002. With-project conditions reflect conditions with the Plan FC3A improvement in place. This evaluation of flood damages was conducted for the 2010-2059 period of economic analysis--the period of expected project economic life. In this evaluation, "current values" refers to activities/development affected by flooding in the year the analysis was conducted (2002).

40. Flood damage evaluation for this study was accomplished by the use of current aerial photographs, satellite photographs, and GIS data, current stage-area and hydrologic stage-frequency data, current hydrologic data incorporating the latest daily flood record data, the use of current field survey data, and extensive information specific to each damage category. Stage-area curves and data reflecting the latest information on the amounts of cleared agricultural lands and remaining woodlands in the project area flood plain depict the relationship between stage or elevation of flooding and area flooded. Hydrologic stage-frequency curves reflect the relationship of stage/elevation of flooding and the frequency of occurrence. Frequencies of occurrence of flooding are presented on the stage-frequency curves as percentages. Other flood analysis curves and data utilized in project evaluation included area-frequency (integration of stage-area/stage-frequency data), stage-damage (flood damage at applicable elevation of flooding), and damage-frequency (integration of damages and frequency data).

41. Hydrologic analyses delineate the project area--the area impacted by implementation of the flood control project proposed for the Bayou Meto Area. The impacted area was divided into 11 hydrologic reaches to appropriately and more precisely reflect flooding problems. Plate I-02 displays the project reaches.

## AREA FLOODED, SELECTED FLOOD FREQUENCIES

42. Table F-2 presented the acreages flooded in the project area for various frequencies of flooding for base (without-project) conditions. Table F-3 presents base conditions acreage flooded data by reach for the 100-year frequency flood event.

TABLE F-3
AREA FLOODED
100-YEAR FREQUENCY FLOOD EVENT
BASE (WITHOUT-PROJECT) CONDITIONS

| Reach | Elevation (ft, NGVD) | Area Flooded | | | | Total (acres) |
|---|---|---|---|---|---|---|
| | | Cleared | | Wooded | | |
| | | acres | % | acres | % | |
| 1 BBM-1 | 178.5 | 25,580 | 49 | 26,110 | 51 | 51,690 |
| 2 BBM-2 | 195.4 | 21,160 | 58 | 15,040 | 42 | 36,200 |
| 3 BBM-3 | 228.2 | 10,900 | 73 | 4,030 | 27 | 14,930 |
| 4 CC | 198.0 | 12,590 | 85 | 2,280 | 15 | 14,870 |
| 5 CCD | 198.0 | 10,950 | 76 | 3,550 | 24 | 14,500 |
| 6 Two PR | 199.2 | 9,550 | 60 | 6,460 | 40 | 16,010 |
| 7 LBM-1 | 178.5 | 6,770 | 51 | 6,420 | 49 | 13,190 |
| 8 LBM-2 | 182.7 | 29,120 | 46 | 33,510 | 54 | 62,630 |
| 9 WAB IND B-3 | 215.4 | 10,770 | 91 | 1,080 | 9 | 11,850 |
| 10 SALT CAN-BB | 202.1 | 25,560 | 83 | 5,360 | 17 | 30,920 |
| 11 IND B DITCH | 215.4 | 18,570 | 85 | 3,270 | 15 | 21,840 |
| TOTAL | | 181,520 | 63 | 107,110 | 37 | 288,630 |
| USE | | 182,000 | | 107,000 | | 289,000 |

SOURCE: Current area-frequency data.

AVERAGE ANNUAL ACRES FLOODED

43. A variety of flood analysis curves were utilized to determine flood damages. The area-frequency curve (data) are used to calculate average annual acres flooded for each hydrologic reach. Area-frequency data consists of the integration of stage-area data (elevation of flooding associated with area flooded) and stage-frequency data (elevation of flooding associated with frequencies of flooding/percent chance of flood occurrence). Consequently, frequencies of flooding associated with applicable flooding elevations and acres flooded (cleared, wooded, and total) are assimilated. The above data are integrated to create area-frequency relationships. Computer analyses facilitate measurement of the area under the area-frequency curve to determine average annual acres flooded. These types of flood analyses data not only consider the frequencies of past flood events, but also take into account the probability of other potential flood frequencies. Average annual cleared acres flooded are key elements used with damage-per-acre factors and other data to determine annual flood damages for agricultural crops and agricultural noncrop items. Table F-4 summarizes average annual acres flooded for without-project conditions for the Bayou Meto Area. Table F-5 presents the average annual acres flooded for with-project conditions for Alternative Plan FC3A.

TABLE F-4
AVERAGE ANNUAL ACRES FLOODED
BASE (WITHOUT-PROJECT) CONDITIONS

| Reach | Cleared (acres) | Wooded (acres) | Total (acres) |
|---|---|---|---|
| 1 BBM-1 | 15,355 | 20,573 | 35,928 |
| 2 BBM-2 | 17,441 | 20,862 | 38,303 |
| 3 BBM-3 | 8,850 | 4,522 | 13,372 |
| 4 CC | 6,797 | 1,264 | 8,061 |
| 5 CCD | 12,044 | 16,900 | 17,934 |
| 6 Two PR | 12,062 | 11,953 | 24,015 |
| 7 LBM-1 | 4,100 | 5,816 | 9,916 |
| 8 LBM-2 | 43,098 | 68,247 | 111,345 |
| 9 WAB IND B-3 | 6,385 | 730 | 7,115 |
| 10 SALT CAN-BB | 18,917 | 19,003 | 22,193 |
| 11 IND B DITCH | 19,836 | 23,155 | 24,530 |
| TOTAL | 164,885 | 147,827 | 312,712 |

SOURCE: Current area-frequency data.

TABLE F-5
AVERAGE ANNUAL ACRES FLOODED
WITH-PROJECT PLAN FC3A CONDITIONS

| Reach | Cleared (acres) | Wooded (acres) | Total (acres) |
|---|---|---|---|
| 1 BBM-1 | 10,587 | 14,629 | 25,216 |
| 2 BBM-2 | 17,441 | 20,862 | 38,303 |
| 3 BBM-3 | 7,592 | 4,007 | 11,599 |
| 4 CC | 4,546 | 759 | 5,305 |
| 5 CCD | 8,600 | 4,259 | 12,859 |
| 6 Two PR | 11,741 | 11,795 | 23,536 |
| 7 LBM-1 | 2,831 | 4,166 | 6,997 |
| 8 LBM-2 | 26,923 | 46,250 | 73,173 |
| 9 WAB IND B-3 | 5,429 | 664 | 6,093 |
| 10 SALT CAN-BB | 18,917 | 3,276 | 22,193 |
| 11 IND B DITCH | 16,570 | 4,163 | 20,733 |
| TOTAL | 131,177 | 114,830 | 246,007 |

SOURCE: Current area-frequency data.

## FLOOD DAMAGES

### DAMAGE TO URBAN AND RURAL PROPERTY

44. Assessment/analyses of flood damages/impacts to area residences, commercial buildings, etc., indicated that existing flooding impacts/damages to these type properties are negligible.

### Assessment of Most Probable Future Land Use and Related Damages

45. Examination of the alternative site determination does not apply in this analysis since activities desiring to use the flood plain are doing so without the flood protection provided by Alternative Plan FC3A.

46. Future land use assessment included consideration of the requirements of the Flood Disaster Protection Act of 1973 (Public Law 93-234), now administered by the NFIP. Consequently, new structures (buildings) locating in the project area are required to be constructed with a floor elevation above the established 100-year flood frequency event elevation. The requirements of the Flood Disaster Protection Act of 1973 (Public Law 93-234) is taken into account in this analysis. In assessing future land use, site development costs are greater than in protected areas since fill costs are often incurred to raise the floor elevation above the 100-year flood frequency elevation. For without- and with-project conditions for the urban areas, development is currently occurring in areas now subject to flooding which would receive protection from implementation of Plan FC3A. Agricultural lands adjacent to urban areas are being converted to nonagricultural use. Based on projected population increases for the area, additional residential development for future time periods is expected to occur in the area. However, number of structures and flood damages to residential and nonresidential structures in the urban/rural areas are conservatively held constant (no projected increase) for future time periods.

## FLOOD DAMAGES FROM A CATASTROPHIC FLOOD EVENT

47. Base hydrologic conditions reflect that a catastrophic flood such as a 100-year frequency event would inundate large portions of the area. Approximately 289,000 total acres would be flooded from an event of this magnitude. Approximately 63 percent (182,000 acres) of these total acres are cleared acres with the remaining 37 percent being wooded acres. The flood damages to residences, commercial buildings, etc., from a flood of this magnitude in the project area are estimated to be negligible. Flood damages to the agricultural sector would depend on time of year and duration of the catastrophic flood event. Flood damages from a catastrophic flood event could cause substantial flood damages and losses to affected agricultural operations and development and to nonagricultural development.

48. A flood of this magnitude would create disruption of essential services in the urban areas. These impacted services primarily include water supply, sanitary systems, and fire protection. Should floodwaters inundate the water supply systems, pollution of the water supply for these areas may occur, creating a health hazard. However, with adequate warning time, which is estimated to be a few days for base (without-project) conditions, the public and private water supply systems could be closed or otherwise prepared so that system damages or health hazards would be minimal. During a catastrophic event, interrupted or contaminated water supplies could be supplemented by nearby unaffected systems. Added health hazards and inconveniences would also occur due to dysfunction of sanitary sewerage and individual septic tanks. Pumps and other sanitary sewerage system equipment could be shut off and prepared to reduce damages. Municipal sanitary systems not actually flooded could also be affected by the backup and overflows of the system in other areas.

49. Efficiency of fire protection for the area could also be reduced. Any fire in the flooded areas could have major consequences due to lack of adequate water supplies in some areas and from flooding at a depth preventing the use of firefighting equipment (trucks, etc.). However, with adequate pumping equipment, floodwater could be used to extinguish fires with allowable egress and ingress.

50. For without-project flooding conditions, electrical power and power facilities should not be affected significantly. However, if disruption of service should occur, repair crews could experience difficulty in reaching problem areas with necessary repair equipment.

## EMERGENCY COSTS

51. Emergency costs resulting from flooding in the Bayou Meto area are considered to be negligible since it was determined that residential and other structures only receive negligible impacts/damages from flooding in the area.

## FLOOD DAMAGES TO PUBLIC ROADS AND BRIDGES

52. The public road and bridge flood damage factor (repair/replacement costs per mile) per mile of road inundated used for the Bayou Meto flood control study was based on available flood damage survey data for a similar area (Delta counties in northwest Mississippi). These flood damage data for public roads and bridges were used for the Bayou Meto area since development in the Mississippi Delta and Bayou Meto area are similar and both areas experience similar flooding conditions (time of year, headwater-type flooding, etc.). The Mississippi Delta flood damage data resulted from a survey of several Delta counties following a flood in the area in 1991. The Mississippi Emergency Management Agency (MEMA) conducted the survey. These repair and replacement costs data were based on interviews with city, county, and state engineers; county road commissioner; county supervisors; and MEMA officials. The damage for selected Delta counties, divided by the number of miles of road inundated, resulted in repair and replacement costs of $2,300 per inundated mile (updated to 2004 price levels).

53. The number of miles of roads inundated for several selected flood events was determined by comparing GIS coverage of flooding under existing conditions to coverage representing flooding with each of the proposed alternative projects in place. The number of miles of roads damaged with and without project for each of these flood events was multiplied by the damage per mile factor to obtain a damage-frequency curve that describes the level of expected flooding. Calculating the area under the applicable damage-frequency curves determines average annual damages for without- and with-project conditions.

54. With this flood damage analysis, estimated flood damage to public roads and bridges in the Bayou Meto area under existing conditions is indicated to be $126,000 annually (Table F-6). Annual flood damages to public roads and bridges for the various alternative flood control plans considered for the Bayou Meto area were determined to be $125,000 with Plan FC2; $125,000 with Plan FC2A; $124,000 with Plan FC3A; and $124,000 annually with Plan FC3B. These damages are not projected to increase during the 50-year project life (Table F-7).

TABLE F-6
AVERAGE ANNUAL FLOOD DAMAGE TO PUBLIC ROADS
AND BRIDGES BY REACH
BASE (WITHOUT-PROJECT) CONDITIONS AND
WITH-PROJECT PLAN FC3A CONDITIONS
(Current Year, 2002 Values)
($000)

| Reach | Base (Without-Project) Conditions | With-Project FC3A Plan Conditions |
|---|---|---|
| 1 BBM-1 | 21 | 21 |
| 2 BBM-2 | 20 | 20 |
| 3 BBM-3 | 4 | 4 |
| 4 CC | 13 | 13 |
| 5 CCD | 5 | 5 |
| 6 Two PR | 7 | 6 |
| 7 LBM-1 | 4 | 4 |
| 8 LBM-2 | 17 | 17 |
| 9 WAB IND B-3 | 10 | 9 |
| 10 SALT CAN-BB | 14 | 14 |
| 11 IND B DITCH | 10 | 10 |
| Total | 126 | 124 |

TABLE F-7
PROJECTED FLOOD DAMAGES TO PUBLIC ROADS
AND BRIDGES BY REACH
BASE (WITHOUT-PROJECT) CONDITIONS AND WITH-PROJECT
PLAN FC3A CONDITIONS
($000)

| Year | Base (Without-Project) Conditions | With-Project FC3A Plan Conditions |
|---|---|---|
| 2002 | 126 | 124 |
| 2010 | 126 | 124 |
| 2019 | 126 | 124 |
| 2029 | 126 | 124 |
| 2039 | 126 | 124 |
| 2049 | 126 | 124 |
| 2059 | 126 | 124 |

AGRICULTURAL CROPS

General

55. Flooding of agricultural cropland and poor drainage of agricultural lands plague the farming sector. For base (without-project) (2002) hydrologic conditions, approximately 288,630 total acres would be flooded in the area from a 100-year frequency flood event. This area includes 63 percent cleared acres flooded. Woodlands encompass 37 percent of the flooded areas. This excludes the areas encompassed by baitfish/catfish farming operations. Flooding of the project area is usually confined to the winter and spring months.

56. Backwater flooding can also affect the lower portions of the project area, resulting from accumulations of excessive rainfall which causes floodwaters from lower Bayou Meto and Little Bayou Meto area to back onto project area lands.

57. Flood damages to agricultural crops are impacted by the time of year of flooding, duration of flooding, and frequency of flooding. Although frequent or intermittent floods may occur any time of the year, flood records indicated that the majority of flooding occurs during the cropland preparation and spring planting months (January-June). Generally, other flood events occur in the area during harvest (October-December). The average number of days flooded (duration of flooding) ranges from 1 to 97 days. The longest duration occurred in 1957 and 1973 (97 days each).

58. Field surveys were conducted to obtain basic land use information for the project area to assess the extent of the flood problem to agricultural production. Interviews were conducted with county agricultural workers (county agents, NRCS, Crop Reporting Service, etc.). Information regarding existing average flood-free agricultural crop yields, estimated crop yields expected with-project implementation, distribution of crops, double-cropping information, trends of agricultural development, land clearing trends/activities, impacts on farm operations from farmed wetlands regulations and Conservation Reserve Program trends, etc., were obtained for each reach in the project area. The personnel interviewed provided crop types, yield, distribution, and other data for the areas identified as being irrigated crops, nonirrigated crops.

59. With the field survey data collected and assimilated, office studies and analyses were conducted to review/compare field survey data with reported yield/distribution data for the two primary economic base area counties in which the project area is located (i.e., Bayou Meto Area reaches located either wholly or mostly within the two primary counties). These comparisons of yields/distributions served to adjust field survey data where deemed appropriate.

60. The analyses and reviews of the crop yield/distribution data provided valuable information as to the completeness, accuracy, acceptability, and reasonableness of the data. Table F-8 present estimated agricultural crop yields and distribution for Reach 4 (Crooked Creek-CC) for without- and with-project conditions. Table F-9 presents estimated agricultural crop yields and distribution information for Reach 8 (LBM-2, Little Bayou Meto-2) for without- and with-project conditions. Base agricultural crop data/information was developed from agricultural workers in two Arkansas counties--Lonoke and Jefferson. Most of the project area and the 11 hydrologic reaches are located within these two counties. Base agricultural data for Lonoke County were utilized to evaluate agricultural crop damages inundation benefits for the following Bayou Meto Area reaches 2, 3, 4, 5, 6, and 11 (see Table F-8). Base agricultural data for Jefferson County were used to evaluate agricultural crop damages/inundation benefits for the remaining Bayou Meto reaches (1, 7, 8, 9, and 10, see Table F-9).

Stratification

61. For this study, stratification of the reaches into lower and upper stratums was not done since field survey analyses indicated there was no identifiable "break-point." Crop distributions are quite homogenous over the various flood frequencies. Table F-10 presents a summary of adjusted average annual cleared acres flooded for all project area hydrologic reaches. These adjusted average annual cleared acres were utilized in the evaluation of agricultural crop damages/benefits.

TABLE F-8
AGRICULTURAL CROP DISTRIBUTION AND FLOOD-FREE YIELDS a/
AGRICULTURAL CROPLAND AREA
BASE (WITHOUT-) AND WITH-PROJECT PLAN FC3A CONDITIONS
REACH 4 (CC, CROOKED CREEK) b/

| Item | Base (Without-Project) Conditions | | With-Project Plan FC3A Conditions | |
|---|---|---|---|---|
| | Crop Distribution a/ | Flood-Free Yield | Crop Distribution a/c/ | Flood-Free Yield |
| Irrigated Crops | | | | |
| Cotton | 7.0 | 1,130.0 lb | 7.0 | 1,130.0 lb |
| Rice | 26.0 | 60.9 cwt | 26.0 | 60.9 cwt |
| Grain Sorghum | 1.0 | 104.0 bu | 1.0 | 104.0 bu |
| Soybeans | 33.0 | 45.0 bu | 33.0 | 45.0 bu |
| Wheat | 9.0 | 50.0 bu | 9.0 | 50.0 bu |
| Corn | 1.0 | 187.5 bu | 1.0 | 187.5 bu |
| Soybeans (DC) | 7.0 | 30.0 bu | 7.0 | 30.0 bu |
| Wheat (DC) | (7.0) | 38.0 bu | (7.0) | 38.0 bu |
| Subtotal | 84.0 | -- | 84.0 | -- |
| Nonirrigated Crops | | | | |
| Cotton | 2.0 | 825.0 lb | 2.0 | 825.0 lb |
| Soybeans | 14.0 | 30.0 bu | 14.0 | 30.0 bu |
| Subtotal | 16.0 | -- | 16.0 | -- |
| TOTAL | 100.0 | | 100.0 | |

a/ Agricultural crop percentage distribution data reflect estimated land use (cropping patterns) for the agricultural cropland (cleared) sector, excluding baitfish/catfish farm acreage, miscellaneous acreages, etc., where appropriate.
b/ Based on data/information for Lonoke County, Arkansas.
c/ Applicable for all alternative plans considered in this study.

TABLE F-9
AGRICULTURAL CROP DISTRIBUTION AND FLOOD-FREE YIELDS a/
AGRICULTURAL CROPLAND AREA
BASE (WITHOUT-) AND WITH-PROJECT PLAN FC3A CONDITIONS
REACH 8 (LBM-2, LITTLE BAYOU METO-2) b/

| Item | Base (Without-Project) Conditions | | With-Project Plan FC3A Conditions | |
|---|---|---|---|---|
| | Crop Distribution a/ | Flood-Free Yield | Crop Distribution a/c/ | Flood-Free Yield |
| Irrigated Crops | | | | |
| Cotton | 17.0 | 1,130.0 lb | 17.0 | 1,130.0 lb |
| Rice | 20.0 | 60.9 cwt | 20.0 | 60.9 cwt |
| Grain Sorghum | 1.0 | 104.0 bu | 1.0 | 104.0 bu |
| Soybeans | 19.0 | 45.0 bu | 19.0 | 45.0 bu |
| Wheat | 6.0 | 50.0 bu | 6.0 | 50.0 bu |
| Corn | 1.0 | 187.5 bu | 1.0 | 187.5 bu |
| Soybeans (DC) | 4.0 | 30.0 bu | 4.0 | 30.0 bu |
| Wheat (DC) | (4.0) | 38.0 bu | (4.0) | 38.0 bu |
| Subtotal | 84.0 | -- | 84.0 | -- |
| Nonirrigated Crops | | | | |
| Cotton | 2.0 | 825.0 lb | 2.0 | 825.0 lb |
| Soybeans (DC) | 14.0 | 30.0 bu | 14.0 | 30.0 bu |
| Subtotal | 16.0 | -- | 16.0 | -- |
| TOTAL | 100.0 | | 100.0 | |

a/ Agricultural crop percentage distribution data reflect estimated land use (cropping patterns) for the agricultural cropland (cleared) sector, excluding baitfish/catfish farm acreage, miscellaneous acreages, etc., where appropriate.
b/ Based on data/information for Jefferson County, Arkansas.
c/ Applicable for all alternative plans considered in this study.

TABLE F-10
AVERAGE ANNUAL CLEARED ACRES FLOODED, ALL REACHES
BASE (WITHOUT-PROJECT) CONDITIONS AND
WITH-PROJECT PLAN FC3A CONDITIONS

| Reach | Without-Project Conditions a/ | With-Project Plan FC3A Conditions a/ |
|---|---|---|
| 1 BBM-1 | 15,201 | 10,481 |
| 2 BBM-2 | 17,266 | 17,266 |
| 3 BBM-3 | 8,762 | 7,516 |
| 4 CC | 6,729 | 4,501 |
| 5 CCD | 11,924 | 8,514 |
| 6 Two PR | 11,941 | 11,624 |
| 7 LBM-1 | 4,059 | 2,803 |
| 8 LBM-2 | 42,667 | 26,654 |
| 9 WAB IND B-3 | 6,321 | 5,375 |
| 10 SALT CAN-BB | 18,728 | 18,728 |
| 11 IND B DITCH | 19,638 | 16,404 |
| Total | 163,236 | 129,875 |

a/ All average annual cleared acres flooded presented here have been adjusted to exclude farmed wetland acreages, applicable refuge lands, and those excessively flooded (very low elevation) cleared acreages for use in the flood damage/benefit analyses for agricultural crops

62. Based on above finalized crop yield/distribution data and using updated (2000) agricultural crop budget data (costs/returns for achieving certain yield levels used as input to crop damage program and referred to as "Flood Damage Tables") provided by the University of Arkansas (UA) (AAFES), net returns for applicable crops were determined for each reach and for base (without-project) and with-project conditions. These data (yields, distribution, net returns, weighted net returns, etc., for applicable reaches, areas, and conditions) were prepared for use as input to an agricultural crop damage program to evaluate flood damage to crops (irrigated and nonirrigated). These computer program input data are referred to as "General Information for Crops."

Computerized Agricultural Crop Flood
Damage Assessment System (CACFDAS)

63. The CACFDAS was developed for the U.S. Army Corps of Engineers, Vicksburg District, by the Department of Agricultural Economics of Mississippi State University (MSU), which is one of the major research components of MAFES. Others involved in development of CACFDAS included specialists from USDA; Delta Branch Experiment Station, Stoneville, Mississippi; and the Mississippi Cooperative Extension Service, MSU. Participating scientists included agricultural agronomists, plant geneticists, plant pathologists, plant physiologists, soil and weed scientists, agricultural engineers, and agricultural economists.

64. The crop damage program calculates flood damages for each crop by analyzing daily flood-stage recorded data which reflect varying flood events (when cleared cropland is being flooded) or multiple flood events (analysis of multiple flood events of cleared cropland in the same year on the same area). The program allows for specific crop replanting and/or crop substitution.

65. The CACFDAS was developed to include two general levels of management for the principal crops of rice, cotton, and soybeans--high management practices and typical management practices. In addition, a low management practice for soybeans was included for a late crop replanting alternative.

66. Budget data for high management practices include information on yields, production practices, and resource use rates provided by research scientists and extension specialists at experiment stations. Data reflect the potential for each crop for use with "best-known" or recommended practices.

67. Budgets reflecting typical management practices are based on information developed from a survey of cooperating farm producers in the State of Arkansas. Survey data are collected annually to provide information on production practices and performance rates of new equipment for the principal crops of cotton, soybeans, rice, wheat, corn, and grain sorghum. Typical management practices reflect current production practices and costs based on "usual input practices," the practices most commonly used by surveyed farm producers. Typical management crop budgets were used for the Bayou Meto flood damage/benefit analyses. These reflect cropping practices currently utilized in the Bayou Meto area.

68. Calculation of agricultural crop flood damage is a complex process. The analytical program (CACFDAS) is structured to compute flood damages based on the time of the flood event as related to sequence of agricultural operations that have occurred in the crop production process. Duration factors, expressed as the number of days required to create damages, are developed for four stages of plant development from planting through harvest. These factors range from 1 to 10 days, depending on the crop and stage of plant development. Dates of normal planting, late planting, and last planting date are also developed by crop. These dates are important since they, in conjunction with the duration factors, are the base dates allowing flood damage, crop replanting, crop substitution, and crop yield reduction data to be derived.

69. Three components of information developed within the crop budgets are essential in assessing flood damages. These include production costs and harvesting equipment fixed costs; expected net returns to lands, management, and general farm overhead; and operation revenues consisting of realized gross value of the harvested crop. These crop budget data (referred to as Flood Damage Tables) include one of the main inputs to the flood-damage assessment program. Other main input items include crop distribution data, net and gross returns by crop, crop substitution data, etc., and hydrologic data containing "Daily Flood Duration Data," including date, elevation, and the number of cleared acres flooded for each daily stage.

Current Normalized Prices
for Agricultural Crops

70. The gross returns for the various crops contained in the CACFDAS input data were calculated using FY 04 current normalized prices. Use of these prices is required by existing regulations and guidelines in evaluation of all water-related development projects. The method used to calculate current normalized prices (including the impacts of Government support programs) utilizes information obtained from a structural econometric model of the agricultural sector and input from commodity specialists in the Economic Research Service (USDA). The derivation of current normalized prices was approved by the Natural Resource and Environmental Committee. A comprehensive supply-demand analysis was used to minimize shortrun distortions in prices from abnormal weather and temporary changes in the foreign demand for agricultural products. Expert analyses by commodity specialists derived consistent prices and indices for commodities not included in the structural model. Table F-11 presents the FY 04 current normalized prices for this analysis for several of the major agricultural crops in the area.

TABLE F-11
FY 04 CURRENT NORMALIZED PRICES
MAJOR AGRICULTURAL CROPS

| Crop | Amount ($) |
|---|---|
| Cotton (Lint and Seed) | 0.528 lb |
| Rice | 4.16 cwt |
| Grain Sorghum | 2.42 bu |
| Soybeans | 5.65 bu |
| Wheat | 2.90 bu |
| Corn | 2.43 bu |

71. A major input to the agricultural crop damage program is the hydrologic daily stage information spanning 49 years of record (1949-1997) for the Bayou Meto Area. The daily stage hydrologic data, including date, associated stage or elevation of flooding, and number of cleared acres associated with each elevation of flooding, were prepared for base (without-project) and with-project Plan FC3A conditions for each reach and each alternative plan.

Summary, Agricultural Crop Damage, Current Year

72. Results from the agricultural crop damage program indicate that for without-project conditions, the estimated crop damages per acre for irrigated crops ranged from $34.53 per acre in Reach 3 to $116.55 per acre in Reach 8. For without-project conditions, the estimated crop damage per acre for nonirrigated crops ranged from $12.91 per acre in Reach 6 to $73.16 per acre for Reach 8. Table F-12 presents a summary of per-acre agricultural crop damages for without-project conditions. Total annual crop damages for without-project conditions, including both irrigated and nonirrigated crops of all reaches, are estimated at $11.3 million annually (Table F-13).

TABLE F-12
SUMMARY, AGRICULTURAL CROP DAMAGE PER PEAK FLOODED ACRE
BASE (WITHOUT-PROJECT) CONDITIONS

| Reach | Irrigated Crops ($) | Nonirrigated Crops ($) |
|---|---|---|
| 1 BBM-1 | 60.23 | 35.09 |
| 2 BBM-2 | 51.45 | 33.49 |
| 3 BBM-3 | 34.53 | 19.54 |
| 4 CC | 89.95 | 34.69 |
| 5 CCD | 99.28 | 36.95 |
| 6 Two PR | 43.43 | 12.91 |
| 7 LBM-1 | 60.81 | 35.22 |
| 8 LBM-2 | 116.55 | 73.16 |
| 9 WAB IND B-3 | 38.45 | 25.09 |
| 10 SALT CAN-BB | 86.60 | 51.89 |
| 11 IND B DITCH | 39.29 | 13.42 |

SOURCE: Output from CACFDAS. The per-acre crop damage from flooding is a combined damage value, reflecting or representing the damages sustained by each crop produced in the areas noted.

TABLE F-13
SUMMARY, FLOOD DAMAGE TO AGRICULTURAL CROPS
BASE (WITHOUT-PROJECT) AND WITH-PROJECT
PLAN FC3A CONDITIONS
(Current Year, 2002)
($000)

| Reach | Base (Without-Project) Conditions | With-Project Plan FC3A Conditions |
|---|---|---|
| 1 BBM-1 | 810 | 556 |
| 2 BBM-2 | 802 | 801 |
| 3 BBM-3 | 276 | 213 |
| 4 CC | 633 | 173 |
| 5 CCD | 1,115 | 709 |
| 6 Two PR | 441 | 422 |
| 7 LBM-1 | 218 | 155 |
| 8 LBM-2 | 4,683 | 2,510 |
| 9 WAB IND B-3 | 225 | 186 |
| 10 SALT CAN-BB | 1,433 | 1,433 |
| 11 IND B DITCH | 681 | 530 |
| TOTAL | 11,317 | 7,688 |

73. Agricultural crop damages for with-project Plan FC3A conditions for irrigated crops ranged from $33.13 per acre for Reach 3 to $106.60 per acre for Reach 8. For with-project conditions, the estimated crop damage per acre for nonirrigated crops ranges from $11.82 per acre for Reach 3 to $63.81 per acre for Reach 8 (Table F-14).

TABLE F-14
SUMMARY, AGRICULTURAL CROP DAMAGE PER PEAK FLOODED ACRE
WITH-PROJECT PLAN FC3A CONDITIONS

| Reach | Irrigated Crops ($) | Nonirrigated Crops ($) |
|---|---|---|
| 1 BBM-1 | 60.23 | 35.09 |
| 2 BBM-2 | 51.45 | 33.49 |
| 3 BBM-3 | 33.13 | 11.82 |
| 4 CC | 44.63 | 17.99 |
| 5 CCD | 97.00 | 37.19 |
| 6 Two PR | 42.89 | 12.81 |
| 7 LBM-1 | 62.88 | 36.20 |
| 8 LBM-2 | 106.60 | 63.81 |
| 9 WAB IND B-3 | 38.91 | 24.88 |
| 10 SALT CAN-BB | 86.60 | 51.89 |
| 11 IND B DITCH | 37.91 | 12.96 |

SOURCE: Output from CACFDAS for Alternative Plan FC3A. The per-acre crop damage from flooding is a combined damage value, reflecting or representing the damages sustained by each crop produced in the areas noted.

Crop Damages, Projected

74. Potential exists in the project area agricultural sector for improvements in overall increases in farm production levels and economies. These increases will likely result from new and improved seed varieties, improved crop tillage methodologies, better management techniques, and/or various other new technologies which could emerge in the future. In order to reflect the impact of these crop production levels, projection factors were employed to estimate crop damage for future time periods.

75. Projection factors for estimating future crop damage were based on results of a linear regression computer program. Without-project data for this evaluation included the values per harvested acre for selected years of reported agricultural crop sales data for the two primary counties in the economic base area. The U.S. Census of Agriculture data for agricultural crop sales are reported at 5-year intervals. These crop sales values were converted to a constant dollar basis for projection purposes. These values of farm product sales are reliable indicators of the historical increases in productivity for a specific area, and the extension of these trends into the future provides reasonable estimates of expected increases.

76. The reliability of the projected data values were tested for statistical significance. Historical and projected values of all farm products sold for selected years are presented in Table F-15.

TABLE F-15
HISTORICAL/PROJECTED VALUE OF AGRICULTURAL CROP SALES a/

| Year | Value (1996 Dollars) ($) | Ratio of Increase (Over Prior Years) (%) |
|---|---|---|
| 1987 | 183,304 a/ | |
| | = | 1.06912 |
| 1992 | 195,975 a/ | |
| | = | 1.10749 |
| 1997 | 217,041 a/ | |
| | = | 1.07127 |
| 2002 b/ | 232,510 b/ | |
| | = | 1.11608 |
| 2010 | 259,500 c/ | |
| | = | 1.11701 |
| 2019 | 289,863 c/ | |
| | = | 1.11639 |
| 2029 | 323,600 c/ | |
| | = | 1.10426 |
| 2039 | 357,337 c/ | |
| | = | 1.09441 |
| 2049 | 391,074 c/ | |
| | = | 1.08627 |
| 2059 | 424,811 c/ | |

a/ Historical data based on value of agricultural crop sales, Bayou Meto economic base area, by specific years, converted to 1996 constant dollars.
b/ Current year.
c/ Projected year. Analysis of other alternative plans involved different construction years, project completion dates, etc., used interpolated values from initial projected data.

77. The ratios of increase presented in Table F-15 were used to project 2002 (current year values) agricultural crop damages to future time periods by 10-year increments (Table F-16). Crop damages were projected for without- and with-project Plan FC3A conditions and other alternatives). For this analysis, the estimated project completion date for Plan FC3A is 2009. The first full year of project benefits (base year) is 2010. The 50-year period established as the expected economic life of the project is from 2010 to 2059. For base or without-project conditions, annual crop damages in the project area for the current year (2002) are estimated at $10.8 million. With Plan FC3A, current-year crop damages would be reduced to an estimated $7.7 million. Flood damage estimates for future years are shown in Table F-16.

TABLE F-16
PROJECTED AGRICULTURAL FLOOD DAMAGES TO CROPS
BASE (WITHOUT-PROJECT) AND WITH-PROJECT
PLAN FC3A CONDITIONS
($000)

| Year | Base (Without-Project) Conditions | With-Project Plan FC3A Conditions |
|---|---|---|
| 2002 | 10,796 | 7,688 |
| 2010 | 12,070 | 8,595 |
| 2019 | 13,482 | 9,601 |
| 2029 | 15,051 | 10,719 |
| 2039 | 16,620 | 11,836 |
| 2049 | 18,190 | 12,954 |
| 2059 | 19,759 | 14,071 |

AGRICULTURAL NONCROP

78. Flood damages to farm property other than crops include damages to farm supplies; farm roads; drainage ditches, including V and W types; fences; irrigation systems; and land forming and leveling.

79. Present agricultural noncrop damage values were determined by utilizing an appropriate noncrop damage factor per cleared-acre-flooded from a similar agricultural area for each of the project area reaches. These noncrop damage factors were based on available noncrop survey data and were updated applying appropriate cost index factors. This information was previously developed and compiled from a comprehensive study in 11 Delta counties in northwest Mississippi conducted by the Department of Agricultural Economics, Mississippi Agricultural and Forestry Experiment Station, MSU, under contract to the Corps. The survey data extensively utilized aerial photographs, analysis of the amount of each damageable item, field investigations, updated normalized prices and costs, verified percent damage estimates, and appropriate flood analysis curves. The average annual damage-per-cleared-acre-flooded factor for each reach was multiplied by the average annual cleared acres flooded without- and with-project conditions for each respective reach to determine the present annual noncrop damages, as presented in Table F-17. Data for areas with similar development patterns and flooding conditions were utilized in order to predict flooding problems as accurately as possible.

TABLE F-17
SUMMARY, FLOOD DAMAGES TO NONCROP ITEMS
BASE (WITHOUT-PROJECT) AND WITH-PROJECT
PLAN FC3A CONDITIONS
(Current Year, 2004 Values)
($000)

| Reach | Base (Without-Project) Conditions | With-Project Plan FC3A Conditions |
|---|---|---|
| 1 BBM-1 | 155 | 106 |
| 2 BBM-2 | 176 | 176 |
| 3 BBM-3 | 89 | 77 |
| 4 CC | 68 | 46 |
| 5 CCD | 121 | 86 |
| 6 Two PR | 121 | 118 |
| 7 LBM-1 | 42 | 29 |
| 8 LBM-2 | 433 | 271 |
| 9 WAB IND B-3 | 64 | 54 |
| 10 SALT CAN-BB | 191 | 191 |
| 11 IND B DITCH | 199 | 166 |
| TOTAL | 1,659 | 1,320 |

80. Future damage values for noncrop items are based on projected values of all farm products sold per harvested acre (same projection indices used to determine future agricultural crop values). The projection factors used are presented in Table F-15. Table F-18 presents a summary of the estimated noncrop damages for projected time periods for the project area. Noncrop damages for without-project and with Alternative Plan FC3A conditions are included. Annual noncrop damages in the project area would be reduced by 20 percent with Plan FC3A.

TABLE F-18
PROJECTED AGRICULTURAL FLOOD DAMAGES TO NONCROP ITEMS
BASE (WITHOUT-PROJECT) AND WITH-PROJECT
PLAN FC3A CONDITIONS
($000)

| Year | Base (Without-Project) Conditions | With-Project Plan FC3A Conditions |
|---|---|---|
| 2002 | 1,659 | 1,320 |
| 2010 | 1,984 | 1,578 |
| 2019 | 2,216 | 1,763 |
| 2029 | 2,474 | 1,968 |
| 2039 | 2,731 | 2,173 |
| 2049 | 2,989 | 2,378 |
| 2059 | 3,247 | 2,584 |

BAITFISH OPERATIONS

81. There are an estimated 15,950 acres in baitfish ponds in the Bayou Meto project area. Based on a 5-year average price of $2.75 per pound and an output of 400 pounds of baitfish per acre, the annual gross value of production of these ponds is $17.5 million. Hydrologic reaches within the Bayou Meto area have significant flooding problems or damages to baitfish farming operations. Flood-related damages to the baitfish industry include revenue lost from escaped fish, reduced revenue due to shortened growing season, additional costs for restocking ponds, draining and refilling ponds, and from damages to pond levees, drainage systems, and water supply systems.

82. Damages to baitfish operations are calculated based on the historic flooding in each hydrologic reach where baitfish production occurs. Acres of flooded ponds and depths of flooding on pond levees are based on recorded hydrologic data specific to certain points within the project area. Elevations for tops of levees were derived from field observations. This procedure established damage elevations for all ponds in the project area. Pond levees were breached allowing direct losses to specific ponds as floodwaters exceeded the tops of levees.

83. Based on available data, ponds in this area would be overtopped only by flood events equal to or greater than the 100-year frequency event. A 100-year frequency flood event would flood 15,983 acres of baitfish. A damage frequency curve was derived for both without- and with-project conditions. Based on findings from other study efforts, it was found that all production would be lost if a pond is overtopped. There is also a cost associated with repairs to pond levees that are damaged. Based on discussions with researchers from MSU, this levee damage is estimated to be 10 percent of initial pond construction costs.

84. For without-project conditions, total annual damages to this industry are estimated at $298,000, which compares to those with-project Plan FC3A damages of $32,000. Tables F-19 and F-20 present summaries of flood damage to baitfish operations in the Bayou Meto area. The estimated flood damages to catfish are not projected, but held constant for future time periods due to the baitfish farming industry being a dynamic growth industry and highly dependent on demand. This presents difficulties in the availability of current reliable projection factors. Due to this and previously stated factors, the damage estimate for the catfish industry is possibly conservative and could be modified as additional information becomes available.

TABLE F-19
SUMMARY OF ANNUAL FLOOD DAMAGES TO BAITFISH FARMING OPERATIONS
BASE (WITHOUT-PROJECT) AND WITH-PROJECT
PLAN FC3A CONDITIONS
(Current Year, 2004 Values)
($000)

| Reach | Base (Without-Project) Conditions | With-Project FC3A Plan Conditions |
|---|---|---|
| 1 BBM-1 | 48 | 0 |
| 2 BBM-2 | 20 | 20 |
| 3 BBM-3 | 65 | 0 |
| 4 CC | 10 | 0 |
| 5 CCD | 32 | 0 |
| 6 Two PR | 72 | 0 |
| 7 LBM-1 | 1 | 0 |
| 8 LBM-2 | 11 | 0 |
| 9 WAB IND B-3 | 1 | 0 |
| 10 SALT CAN-BB | 12 | 12 |
| 11 IND B DITCH | 26 | 0 |
| TOTAL | 298 | 32 |

TABLE F-20
PROJECTED FLOOD DAMAGES TO BAITFISH OPERATIONS
BASE (WITHOUT-PROJECT) AND WITH-PROJECT
PLAN FC3A CONDITIONS
($000)

| Year | Base (Without-Project) Conditions | With-Project Plan FC3A Conditions |
|---|---|---|
| 2002 | 298 | 32 |
| 2010 | 298 | 32 |
| 2019 | 298 | 32 |
| 2029 | 298 | 32 |
| 2034 | 298 | 32 |
| 2039 | 298 | 32 |
| 2049 | 298 | 32 |
| 2059 | 298 | 32 |

SUMMARY, FLOOD DAMAGES, BASE
(WITHOUT-PROJECT) CONDITIONS

85. Total annual flood damages to present development within the Bayou Meto area are estimated at $16.5 million (Tables F-21 and F-22). Approximately 1 percent of the total annual flood damages for without-project conditions occur to nonagricultural activities ($126,000 for current year) while the remaining 99 percent ($16.4 million) occur to the agricultural sector.

TABLE F-21
PRESENT AND FUTURE FLOOD DAMAGE VALUES, BASE (WITHOUT-PROJECT) AND WITH-PROJECT PLAN FC3A CONDITIONS a/
($000)

| Item | Type Damage | | | | | | | | Total Flood Damage |
|---|---|---|---|---|---|---|---|---|---|
| | Nonagricultural | | | | Agricultural | | | | |
| | Urban b/ | Rural a/ | Public Roads and Bridges | Subtotal | Crops d/ | Noncrop e/ | Baitfish Operations | Subtotal | |
| **Present 2002 Damage** | | | | | | | | | |
| Without Project | h/ | h/ | 126 | 126 | 10,796 | 1,659 | 298 | 12,753 | 12,879 |
| With Project | h/ | h/ | 124 | 124 | 7,688 | 1,320 | 32 | 9,040 | 9,164 |
| **Projected Base Year 2010 Damage a/** | | | | | | | | | |
| Without Project | h/ | h/ | 126 | 126 | 12,070 | 1,984 | 298 | 14,352 | 14,478 |
| With Project | h/ | h/ | 124 | 124 | 8,595 | 1,574 | 32 | 10,201 | 10,325 |
| **Projected 2019 Damage** | | | | | | | | | |
| Without Project | h/ | h/ | 126 | 126 | 13,482 | 2,216 | 298 | 15,996 | 16,122 |
| With Project | h/ | h/ | 124 | 124 | 9,601 | 1,763 | 32 | 11,396 | 11,520 |
| **Projected 2029 Damage** | | | | | | | | | |
| Without Project | h/ | h/ | 126 | 126 | 15,051 | 2,474 | 298 | 17,823 | 17,949 |
| With Project | h/ | h/ | 124 | 124 | 10,719 | 1,968 | 32 | 12,719 | 12,843 |
| **Projected 2039 Damage** | | | | | | | | | |
| Without Project | h/ | h/ | 126 | 126 | 16,620 | 2,731 | 298 | 19,649 | 19,775 |
| With Project | h/ | h/ | 124 | 124 | 11,836 | 2,173 | 32 | 14,041 | 14,165 |
| **Projected 2049 Damage** | | | | | | | | | |
| Without Project | h/ | h/ | 126 | 126 | 18,190 | 2,989 | 298 | 21,477 | 21,603 |
| With Project | h/ | h/ | 124 | 124 | 12,954 | 2,378 | 32 | 15,364 | 15,488 |
| **Projected 2059 Damage** | | | | | | | | | |
| Without Project | h/ | h/ | 126 | 126 | 19,759 | 3,247 | 298 | 23,304 | 23,430 |
| With Project | h/ | h/ | 124 | 124 | 14,071 | 2,584 | 32 | 16,687 | 16,811 |

TABLE F-21 (Cont)

a/ Undiscounted values, rounded to nearest thousand.
b/ Includes damages to residences, commercial establishments, industrial buildings, professional properties, semipublic and public structures, and warehouses based on risk-based analyses.
c/ Includes flood-fighting costs, evacuation costs, cleanup and debris removal costs, etc.
d/ Includes damages to all crops susceptible to flood damages. Inundation reduction benefits to crops cannot be determined by subtracting crop damages with project from crop damages without project as presented in Tables F-29 and F-30.
e/ Includes damages to farm fences, drainage ditches, land forming, farm roads, equipment, debris removal, pond levees, etc.
f/ Will be included in final report.
g/ Base year (first full year benefits will be realized after project completion).
h/ Negligible damages/costs.

TABLE F-22
SUMMARY, AVERAGE ANNUAL FLOOD DAMAGES
BASE (WITHOUT-PROJECT) DAMAGES AND DAMAGES WITH
DETAILED ALTERNATIVE STRUCTURAL PLANS CONSIDERED
(Current Year, 2002)

| Flood Damage Category | Base (Without-Project) Conditions a/ | Flood Damages with Alternative Plans c/ | | | |
|---|---|---|---|---|---|
| | | Plan FC2 | Plan FC2A | Plan FC3A | Plan FC3B |
| Nonagricultural ($000) | | | | | |
| Residences, Commercial | | | | | |
| Buildings, Etc. | | | | | |
| Urban | b/ | b/ | b/ | b/ | b/ |
| Rural | b/ | b/ | b/ | b/ | b/ |
| Emergency Costs | | | | | |
| Urban | b/ | b/ | b/ | b/ | b/ |
| Rural | b/ | b/ | b/ | b/ | b/ |
| Public Roads and Bridges | 126 | 125 | 125 | 124 | 124 |
| Subtotal | 126 | 125 | 125 | 124 | 124 |
| Agricultural ($000) | | | | | |
| Crops | 14,406 | 12,280 | 12,136 | 10,259 | 8,184 |
| Noncrop | 1,659 | 1,528 | 1,509 | 1,320 | 1,241 |
| Baitfish Operations | 298 | 81 | 81 | 32 | 32 |
| Subtotal | 16,363 | 13,889 | 13,726 | 11,611 | 9,457 |
| TOTAL FLOOD DAMAGES | 16,489 | 14,014 | 13,851 | 11,735 | 9,581 |

a/ Existing conditions.
b/ Negligible damages/costs.
c/ Does not include benefits during construction.

Nonagricultural Sector

86. Without-project annual flood damages in the nonagricultural sector of the project area are estimated at $126,000. These are comprised of flood damages to public roads and bridges.

Agricultural Sector

87. The annual flood damage for without-project conditions estimated for the agricultural sector of the project area ($16.4 million) consists of damages to agricultural crops, 86 percent; agricultural noncrop items, 12 percent; and damages to baitfish farm operations, 2 percent.

## SUMMARY, FLOOD DAMAGES FOR ALTERNATIVE PLANS CONSIDERED

88. Results of the flood damage analysis for alternative plans indicate that annual damages remaining after implementation of proposed improvement ranges from $9.6 million for Plan FC3B to $14.0 million with Plan FC2 (Table F-22).

# SECTION 5 - BENEFITS

## GENERAL

89. The with-project benefits presented in this section reflect conditions with implementation of the proposed plan (Alternative Plan FC3A). Benefits are based on the period of economic analysis; i.e., the period beginning with the estimated first full year of operation (base year) and continuing through the expected project economic life (2010-2059).

## VALIDATION OF BENEFIT EVALUATION

90. In accordance with Principles and Guidelines (Policy and Planning Guidance for Conducting Civil Works Planning Studies, detailed project reports are to contain a discussion summarizing any critical sensitivity analyses undertaken as part of plan formulation, evaluation, and selection. These analyses are used in examining the effects of varying assumptions and data relative to economic, hydrologic, and other elements which could determine the feasibility and recommendation of a project.

91. The level of agricultural production and agricultural price levels used in this study analyses were developed to eliminate the cyclical fluctuations characteristics of the agricultural industry. Use of the sensitivity analyses would have necessitated consideration of varying production levels plus alternative assumptions on agricultural exports, allotment restrictions, etc. Since the project area is relatively small compared to the overall United States agricultural production areas, any alternative level of agricultural production would not significantly affect total United States agricultural production.

## BENEFIT CATEGORIES

92. The major category of benefits is inundation reduction. Inundation reduction benefits consist of damage reduction to development expected to exist for present conditions and the reduction of damage to additional development without project installation. There are no intensification benefits included in this evaluation.

## BENEFITS BY SECTOR

93. Future flood control benefits were determined for nonagricultural and agricultural sectors affected by implementation of a water resources improvement project. Nonagricultural benefits within the project area consist of flood damage reduction to roads and bridges. Agricultural benefits accruing to the project consist of flood damage reduction to agricultural crops, a variety of agricultural noncrop items, and baitfish/catfish farming.

94. All benefits were discounted to determine present worth and were amortized over the expected project economic life to determine average annual values for each category. Benefits are based on a 50-year development period, an expected project economic life of 50 years, and a current Federal discount rate of 5-3/8 percent.

## INUNDATION REDUCTION BENEFITS

95. Inundation reduction benefits were evaluated for urban and rural structures, emergency costs, urban area streets, roads and bridges, agricultural crops, agricultural noncrop items, and baitfish/catfish farming.

## PUBLIC ROADS AND BRIDGES

96. Benefits from flood damage reduction to public roads and bridges were determined by subtracting projected with-project damages from projected without-project damages (see Section 4, Flood Damages, Table F-22) and annualizing the difference (values) over the project economic life. Present values were held constant over the life of the project. Average annual benefits of $2,000 would result from reduction of flooding on public roads and bridges (Table F-23) with implementation of the Plan FC3A. Inundation reduction benefits for public roads and bridges for other alternatives considered ranged from $1,000 for Alternative Plan FC2 to $2,000 for Alternative Plans FC2A, FC3A, and FC3B.

TABLE F-23
INUNDATION REDUCTION BENEFITS TO PUBLIC ROADS AND BRIDGES
WITH-PROJECT PLAN FC3A CONDITIONS
(5-3/8 Percent Discount Rate Analysis)
($000)

| Year | Total |
|---|---|
| 2002 (Current Year) | 2 |
| 2004 | 2 |
| 2005 | 2 |
| 2006 | 2 |
| 2007 | 2 |
| 2008 | 2 |
| 2009 | 2 |
| 2010 (Base Year) | 2 |
| 2019 | 2 |
| 2029 | 2 |
| 2039 | 2 |
| 2049 | 2 |
| 2059 | 2 |
| Annual Benefits a/ | 2 |

a/ Includes benefits estimated to accrue prior to completion of construction of the Plan FC3A.

REDUCTION IN FLOOD DAMAGES
TO AGRICULTURAL CROPS

97. Flood damages reduction benefits to agricultural crops are based on an analysis of practices on lands not incurring changes in cropping patterns due to the project. Refer to the section, "Agricultural Crop Analyses," on page F-43 through F-48 for a detailed description of procedures employed in this study. That detailed process yielded the benefits for 2002 for each reach, etc. Present and future benefits are summarized in Table F-24.

TABLE F-24
INUNDATION REDUCTION BENEFITS TO AGRICULTURAL CROPS
WITH-PROJECT PLAN FC3A CONDITIONS
(5-3/8 Percent Discount Rate Analysis)
($000)

| Year | Total |
|---|---|
| 2002 (Current Year) | 3,108 |
| 2004 | 3,200 |
| 2005 | 3,245 |
| 2006 | 3,291 |
| 2007 | 3,337 |
| 2008 | 3,383 |
| 2009 | 3,429 |
| 2010 (Base Year) | 3,474 |
| 2019 | 3,881 |
| 2029 | 4,333 |
| 2039 | 4,784 |
| 2049 | 5,236 |
| 2059 | 5,688 |
| Annual Benefits a/ | 4,147 |

a/ Includes benefits estimated to accrue prior to completion of construction of Plan FC3A.

98. Computations indicate that the base year (2010) flood damage inundation reduction benefits to crops would be $3.5 million. Discounting of projected agricultural crop benefits was accomplished utilizing the computer discounting program ECON. Total average annual inundation reduction benefits to agricultural crops would be $4.1 million.

AGRICULTURAL NONCROP ITEMS

99. Benefits from flood damage reduction to agricultural noncrop items were determined by deriving the difference between projected base (without-project) flood damage values and projected with-project Plan FC3A damage values and annualizing the projected benefit values (see Section 4, Flood Damages, Tables F-24 and F-25). Total average annual benefits to agricultural noncrop items of $453,000 would accrue to the project area (Table F-25).

TABLE F-25
INUNDATION REDUCTION BENEFITS TO AGRICULTURAL NONCROP ITEMS
WITH-PROJECT PLAN FC3A CONDITIONS
(5-3/8 Percent Discount Rate Analysis)
($000)

| Year | Total |
|---|---|
| 2002 (Current Year) | 339 |
| 2004 | 349 |
| 2005 | 354 |
| 2006 | 359 |
| 2007 | 364 |
| 2008 | 369 |
| 2009 | 374 |
| 2010 (Base Year) | 379 |
| 2019 | 423 |
| 2029 | 473 |
| 2039 | 522 |
| 2049 | 571 |
| 2059 | 620 |
| Annual Benefits a/ | 453 |

a/ Includes benefits estimated to accrue prior to completion of construction of Plan FC3A.

REDUCTION IN FLOOD DAMAGES TO
BAITFISH/CATFISH FARMING OPERATIONS

100. With implementation of Plan FC3A flood control plan in the Bayou Meto area, baitfish/catfish farm operations will be benefited to the extent that flood damages to these activities will be reduced. Flood damages to baitfish operations are discussed in Section 4, Flood Damages, Table F-19 and F-20, and will total $265,000 on an average annual basis. Benefits were derived by obtaining the difference in projected damage values (for without- and with-project Plan FC3A conditions) and annualizing the projected benefit values (Table F-26).

TABLE F-26
BENEFITS FROM FLOOD DAMAGES PREVENTED TO BAITFISH OPERATIONS
WITH-PROJECT PLAN FC3A CONDITIONS
(5-3/8 Percent Discount Rate Analysis)
($000)

| Year | Total |
|---|---|
| 2002 (Current Year) | 265 |
| 2004 | 265 |
| 2005 | 265 |
| 2006 | 265 |
| 2007 | 265 |
| 2008 | 265 |
| 2009 | 265 |
| 2010 (Base Year) | 265 |
| 2019 | 265 |
| 2029 | 265 |
| 2039 | 265 |
| 2049 | 265 |
| 2059 | 265 |
| Annual Benefits a/ | 265 |

a/ Includes benefits estimated to accrue prior to completion of construction of Plan FC3A.

## INTENSIFICATION BENEFITS, AGRICULTURAL CROPS

101. Intensification benefits to agricultural crops are not included in this analysis. Survey information indicates that farmers would not change practices or cropping patterns with implementation of a flood control project. Without- and with-project crop yields and cropping patterns would be the same.

## AGRICULTURAL CROP ANALYSES

102. As stated previously, inundation reduction benefits consist of flood damage reduction to development expected to exist for conditions at the beginning of project operation and to the reduction of damage to additional development without-project installation. Benefits may also result from development potentials created by the project, specifically from enhanced agricultural practices which are measured in terms of increases in net returns to land. These increases reflect the beneficial effect of a water resources project plan on production activities, which allow more effective farming and land utilization, thereby increasing net returns. However, for this study, no increases were assumed for crop yields and no changes were assumed in with-project cropping patterns.

103. For the Bayou Meto area, survey information reflected that there would be no difference between without- and with-project crop yields/crop distribution. The proposed flood control project would not result in enhancement benefits. Benefits to agricultural crops would result from inundation reduction or reduction in existing flooding conditions.

104. Computations (e.g., Table F-29) reflect an adjusted net returns per acre value of without-and with-project conditions for irrigated crops. This value results from subtracting per-acre without-project conditions net returns from with-project conditions net returns multiplied by the applicable percent reduction in average annual cleared acres with the result added to the without-project net return value resulting in an adjusted net return per acre value of $7.71 (Table F-27). For nonirrigated crops, the adjusted net return value was determined to be $32.87 (Table F-28). This value was applied to impacted acres in determining the unadjusted agricultural production value of $76,685 (Table F-29, Item 1a(2)(a)). The next step in the process was to remove flood damages from the total agricultural production value of $76,685. This entails multiplying the adjusted average annual with-project cleared acres by the average annual damage value per peak acre flooded computed by CACFDAS (see explanation of this program in previous discussion) computer program (3,590 acres x $44.63 = $160,222). Results of the above computations, as presented in Item 1a(4), indicate a with-project adjusted production value of $83,536 ($76,685 - $406,346).

105. Without-project conditions computation was made to determine the value of crop production for without-project conditions; i.e., should no water resources improvement project be constructed. Items 1b(1) and 1b(2) of Table F-29 compute the agricultural production and flood damage remaining values, respectively. The total adjusted cleared acreage (9,940) is multiplied by the without-project weighted net returns per acre value ($7.71 from Table F-27) to obtain the agricultural production value of $76,685 (9,940 acres x $7.71 per acre). The flood damage remaining value was determined by multiplying adjusted average annual without-project cleared acreage by the damage value per peak cleared acre flooded as computed by CACFDAS. The procedure yielded a value of $483,032 (5,370 acres x $89.95 per acre). This value was then subtracted from the total agricultural production value of $76,685, which resulted in a net without-project total crop value of $406,346 ($76,685 - $483,032). This value was subsequently subtracted from the with-project crop value to obtain the net benefit value of $322,810 ($83,536 - $406,346). There are no intensification benefits for this analysis. Inundation benefits to crops in this example reach for irrigated crops are $322,810. The benefit values for nonirrigated crops in this example reach were computed using the same procedure. Benefits to nonirrigated crops were determined to be $21,672 (calculation in Table F-30).

TABLE F-27
WEIGHTED NET RETURNS PER ACRE HARVESTED AND INCREASE IN NET PRODUCTIVE VALUE PER ACRE
IRRIGATED CROPS
REACH 4 (CROOKED CREEK, CC)
BAYOU METO AREA, ARKANSAS

| Land Use | Price a/ ($) | Base (Without-Project) Conditions | | | | | | With-Project Conditions | | | | | | Increase in Net Productive Value/Acre |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Percent Distribution (%) | Average Yield/ Acre b/ | Gross Value ($) | Production Cost ($) | Net Returns ($) | Weighted Net Returns ($) | Percent Distribution (%) | Average Yield/ Acre | Gross Value ($) | Production Cost ($) | Net Returns ($) | Weighted Net Returns ($) | |
| Cotton<br>(Lint)<br>(Seed) | 0.446/lb<br>93.00/ton | 7.0 | 1,130.0 lb | 596.71 | 579.07 | 17.65 | 1.24 | 7.0 | 1,130.0 lb | 596.71 | 579.07 | 17.65 | 1.24 | 0.00 |
| Rice | 4.16/cwt | 26.0 | 60.9 cwt | 253.34 | 441.68 | (188.34) | (48.97) | 26.0 | 60.9 cwt | 253.34 | 441.68 | (188.34) | (48.97) | 0.00 |
| Soybeans | 5.65/bu | 45.0 | 45.0 bu | 254.25 | 147.94 | 106.31 | 47.84 | 45.0 | 45.0 bu | 254.25 | 147.94 | 106.31 | 47.84 | 0.00 |
| Double-cropping<br>Soybeans<br>Wheat | 5.65/bu<br>2.90/bu | 7.0<br>7.0 | 30.0 bu<br>38.0 bu | 169.50<br>110.20 | 105.10<br>132.73 | 64.40<br>(22.53) | 4.51<br>(1.58) | 7.0<br>7.0 | 30.0 bu<br>38.0 bu | 169.50<br>110.20 | 105.10<br>132.73 | 64.40<br>(22.53) | 4.51<br>(1.58) | 0.00<br>0.00 |
| Wheat | 2.90/bu | 9.0 | 50.0 bu | 145.00 | 108.46 | 36.54 | 3.29 | 9.0 | 50.0 bu | 145.00 | 108.46 | 36.54 | 3.29 | 0.00 |
| Corn | 2.43/bu | 1.0 | 187.5 bu | 455.63 | 354.80 | 100.83 | 1.01 | 1.0 | 150.0 bu | 455.63 | 354.80 | 100.83 | 1.01 | 0.00 |
| Grain Sorghum | 2.42/bu | 1.8 | 104.0 bu | 251.21 | 213.74 | 37.97 | 0.38 | 1.0 | 78.0 bu | 251.71 | 213.74 | 37.97 | 0.38 | 1.15 |
| Miscellaneous and Idle | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | | | | | | | | | | | | | | |
| Net Productive Value Per Acre Harvested | | | | | | | 7.71 | | | | | | 7.71 | 0.00 |

a/ FY 2000 current normalized prices.
b/ Average flood-free yields.

TABLE F-28
WEIGHTED NET RETURNS PER ACRE HARVESTED AND INCREASE IN NET PRODUCTIVE VALUE PER ACRE
NONIRRIGATED CROPS
REACH 4 (CROOKED CREEK, CC)
BAYOU METO AREA, ARKANSAS

| Land Use | Price a/ ($) | Base (Without-Project) Conditions | | | | | | With-Project Conditions | | | | | | Increase in Net Productive Value/Acre |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Percent Distribution (%) | Average Yield/ Acre b/ | Gross Value ($) | Production Cost ($) | Net Returns ($) | Weighted Net Returns ($) | Percent Distribution (%) | Average Yield/ Acre | Gross Value ($) | Production Cost ($) | Net Returns ($) | Weighted Net Returns ($) | |
| Cotton (Lint) (Seed) | 0.446/lb 93.00/ton | 33.0 | 825.0 bu | 435.60 | 420.39 | 15.21 | 5.02 | 33.0 | 825.0 bu | 435.60 | 420.34 | 15.21 | 5.02 | 0.00 |
| Rice | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Soybeans | 5.65/bu | 67.0 | 30.0/bu | 169.50 | 127.57 | 41.93 | 27.25 | 67.0 | 30.0/bu | 169.50 | 127.57 | 41.93 | 27.25 | 0.00 |
| Double-cropping Soybeans Wheat | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Wheat | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Grain Sorghum | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Miscellaneous and Idle | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | | 100.0 | | | | | | 100.0 | | | | | | |
| Net Productive Value Per Acre Harvested | | | | | | | 32.27 | | | | | | 32.27 | 0.00 |

a/ FY 2000 current normalized prices.
b/ Average flood-free yields.

TABLE F-29
COMPUTATION OF INUNDATION REDUCTION AND
INTENSIFICATION BENEFITS a/ TO AGRICULTURAL CROPS
BASE (WITHOUT-PROJECT) AND WITH-PROJECT PLAN FC3A CONDITIONS
REACH 4 (CROOKED CREEK, CC)
IRRIGATED CROPS
BAYOU METO AREA, ARKANAS

| | | |
|---|---|---|
| 1. Lower Stratum | | |
| a. With-Project Conditions | | |
| (1) Adjusted Net Returns per Acre<br>(($7.71 - $7.71) x .330 b/) + $7.71 | = | $7.71 |
| (2) Agricultural Production Value | | |
| (a) 9,940 x $7.71<br>(acres x without-project net returns/acre) | = | $76,685 |
| (b) 0 x $119.79<br>(acres x adjacent net returns/acre) | = | 0 |
| (c) Total Agricultural Production Value | = | $76,685 |
| (3) Flood Damage Remaining: a/ | | |
| 3,590 x $44.63 (average annual cleared acres flooded x CACFDAS damages/acre) | = | $160,222 |
| (4) Adjusted Production Value | = | ($83,536) |
| b. Without-Project Conditions | | |
| (1) Agricultural Production Value 9,940 X $119.79<br>(acres x without-project net returns/acre) | = | $76,685 |
| (2) Flood Damages Remaining: a/<br>5,370 x $89.95 (average annual cleared acres flooded x CACFDAS damages/acre) | = | $483,032 |
| (3) Adjusted Production Value | = | ($406,346) |
| c. Net Project Total Benefits | = | $322,810 |
| d. Summary, Intensification and Inundation Reduction Benefits Breakdown | | |
| (1) (acres in basic intensified crops divided by unadjusted cleared acres | = | 0% |
| (2) Intensification benefits prorated:<br>0% ÷ $429,389 | = | $0 |
| (3) Inundation Reduction Benefits Prorated<br>Lower Stratum 100% - 0% = 100 % | = | $322,810 |
| (4) Net Project Total Agricultural Crop Benefits<br>Agricultural Crop Benefits | = | $322,810 |

a/ Flood damage remaining values included to display, clarify, and adjust computation of benefits, where appropriate.

b/ Adjusted to delete low-lying cleared acreage. (No significant amount of farmed wetlands in area.)

c/ Adjusted for low-lying areas.

TABLE F-30
COMPUTATION OF INUNDATION REDUCTION AND
INTENSIFICATION BENEFITS a/ TO AGRICULTURAL CROPS
BASE (WITHOUT-PROJECT) AND WITH-PROJECT PLAN FC3A CONDITIONS
REACH 4 (CROOKED CREEK, CC)
NONIRRIGATED CROPS
BAYOU METO AREA, ARKANAS

| | | |
|---|---|---|
| 1. Lower Stratum | | |
| a. With-Project Conditions | | |
| (1) Adjusted Net Returns per Acre<br>(($32.27 - $32.27) x .330 b/) + $32.27 | = | $32.27 |
| (2) Agricultural Production Value | | |
| (a) 1,890 x $32.27<br>(acres x without-project net returns/acre) | = | $60,997 |
| (b) 0 x $32.27<br>(acres x adjacent net returns/acre) | = | 0 |
| (c) Total Agricultural Production Value | = | $60,997 |
| (3) Flood Damage Remaining: a/ | | |
| 680 x $18.53 (average annual cleared acres flooded x CACFDAS damages/acre) | = | $13,712 |
| (4) Adjusted Production Value | = | $47,285 |
| b. Without-Project Conditions | | |
| (1) Agricultural Production Value 1,890 x $32.27<br>(acres x without-project net returns/acre) | = | $60,997 |
| (2) Flood Damages Remaining: a/<br>1,020 x $34.69 (average annual cleared acres flooded x CACFDAS damages/acre) | = | $35,384 |
| (3) Adjusted Production Value | = | $25,614 |
| c. Net Project Total Benefits | = | $21,672 |
| d. Summary, Intensification and Inundation Reduction Benefits Breakdown | | |
| (1) (acres in basic intensified crops divided by unadjusted cleared acres) | = | 0% |
| (2) Intensification benefits prorated:<br>0% ÷ $9,387 | = | $0 |
| (3) Inundation Reduction Benefits Prorated<br>Lower Stratum 100% - 0% = 100 % | = | $21,672 |
| (4) Net Project Total Agricultural Crop Benefits<br>Agricultural Crop Benefits | = | $21,672 |

a/ Flood damage remaining values included to display, clarify, and adjust computation of benefits, where appropriate.

b/ Adjusted to delete low-lying cleared acreage. (No significant amount of farmed wetlands in area.)

c/ Adjusted for low-lying areas.

## EMPLOYMENT BENEFITS

106. The latest economic evaluation guidance, "Memorandum No. 97-5, Areas Eligible for NED Benefits from Previously Unemployed Labor Resources, 2 May 1997, does not list Lonoke and Jefferson Counties as being eligible for this type of benefit. Therefore, for this study, no employment type benefits will be included in the economic analyses.

## SUMMARY, TOTAL BENEFITS

107. Total average annual benefits for the flood control plan (Plan FC3A) were determined to be $5,296,000. The above values are determined based on a 50-year growth period and an expected project economic life of 50 years. Table F-31 presents annual benefits for Plan FC3A, and Table F-32 presents a summary of annual benefits for all initial detailed structural plans considered in this report.

TABLE F-31
SUMMARY, PROJECTED BENEFITS
WITH-PROJECT PLAN FC3A CONDITIONS
BAYOU METO AREA, ARKANSAS
(5-3/8 Percent Discount Rate Analysis)
($000)

| Year | Inundation Benefit Categories | | | | Subtotal Agricultural | Total |
|---|---|---|---|---|---|---|
| | Nonagricultural | Agricultural | | | | |
| | Public Roads and Bridges | Crops | Noncrop | Baitfish Operations | | |
| 2010 (Base Year) | 2 | 3,474 | 379 | 265 | 4,118 | 4,120 |
| 2019 | 2 | 3,881 | 423 | 265 | 4,569 | 4,571 |
| 2029 | 2 | 4,333 | 473 | 265 | 5,071 | 5,073 |
| 2039 | 2 | 4,784 | 522 | 265 | 5,571 | 5,573 |
| 2049 | 2 | 5,236 | 571 | 265 | 6,072 | 6,074 |
| 2059 | 2 | 5,688 | 620 | 265 | 6,573 | 6,575 |
| Annual Benefits | 2 | 4,507a/ | 522a/ | 265 | 5,294 | 5,296a/ |

a/ Includes benefits during project construction based on an estimated 6-year construction period, 2004-2009.

TABLE F-32
SUMMARY, ANNUAL BENEFITS
ALL INITIAL DETAILED STRUCTURAL ALTERNATIVE PLANS CONSIDERED
(5-3/8 Percent Discount Rate Analysis)
($000)

| Item | Alternative Structural Plans | | | |
|---|---|---|---|---|
| | FC2 | FC2A | FC3A | FC3B |
| INUNDATION | | | | |
| **Nonagricultural** | | | | |
| Public Roads and Bridges | 1 | 2 | 2 | 2 |
| Subtotal | 1 | 2 | 2 | 2 |
| **Agricultural** | | | | |
| Crops | 2,012 | 2,150 | 4,507 | 5,455 |
| Noncrop | 194 | 220 | 522 | 594 |
| Baitfish Operations | 216 | 216 | 265 | 265 |
| Subtotal | 2,422 | 2,586 | 5,261 | 6,314 |
| SUBTOTAL INUNDATION | 2,423 | 2,588 | 5,263 | 6,316 |
| TOTAL BENEFITS | 2,423 | 2,588 | 5,263 | 6,316 |

## SECTION 6 - PROJECT COSTS/ECONOMIC ANALYSES, DETAILED STRUCTURAL FLOOD CONTROL ALTERNATIVE PLANS

### GENERAL

108. The economic analysis process employed for this flood control study involves presentation of three sets of analyses: (1) initial cost estimates with associated economic analysis for all detailed structural plans considered (used for screening purposes (Table F-33).

INITIAL PLANS

First Costs

109. Construction first costs for the alternative structural plans evaluated in detail for this study are presented in Table F-33 to facilitate the NED/NER plan evaluation/section process. No mitigation costs or ecosystem restoration costs are included in these initial plans. Estimated total first costs for the initial plans range from $20.9 million for Plan FC2 to $90.0 million for Plan FC3B. First costs reflect April 2003 price levels. Detailed cost information is contained in Appendix C.

TABLE F-33
FIRST COSTS AND ANNUAL COSTS
DETAILED STRUCTURAL ALTERNATIVE PLANS a/
(5-3/8 Percent Discount Rate Analysis)
($000)

| Item | Plan FC2 | Plan FC2A | Plan FC3A | Plan FC3B |
|---|---|---|---|---|
| First Costs a/ | | | | |
| First Costs | 20,882 | 22,957 | 58,211 | 90,041 |
| Interest During Construction (IDC) b/ | 2,662 | 2,927 | 6,409 | 9,914 |
| Total Investment | 23,544 | 25,884 | 64,620 | 99,995 |
| Annual Costs a/ | | | | |
| Interest and Sinking Fund | 1,365 | 1,501 | 3,747 | 5,795 |
| Operation and Maintenance | 56 | 56 | 444 | 697 |
| Major Rehabilitation Channels | 8 | 8 | 8 | 8 |
| Fish and Wildlife Losses c/ | c/ | c/ | c/ | c/ |
| Total | 1,429 | 1,565 | 4,199 | 6,500 |

a/ Costs reflect price levels of April 2004 (revised costs).
b/ Based on use of estimated construction schedule of expenditures for each plan and appropriate interest rate.
c/ Not available.

Annual Costs

110. Annual costs for initial alternative plans are summarized in Table F-33. Estimates of annual costs associated with construction of structural plans evaluated in detail were based on an expected project economic life of 50 years and applying the current Federal discount rate (5-3/8 percent). Interest and sinking fund costs reflect the estimated amortization costs. Costs for interest during construction, which account for the cost of capital incurred during the

construction period, are included in total investment costs. The estimated cost of operation and maintenance is based on previous annual cost expenditures for similar work for this region. Annual rehabilitation costs are also included. Channel rehabilitation (where applicable) costs are estimated to be required every 20 years during the life of the plans considered. Weir rehabilitation costs are estimated to be required every 25 years.

Economic Analysis, Initial Plans

111. The results of economic analysis for the initial detailed structural plans are presented in Table F-34. As shown, Plan FC3A provides excess benefits over costs of $1,064,000. Plan FC3A is the tentatively preferred plan by locals and the AGFC which provides for water control and management in the Bayou Meto WMA. Plan FC2A provides excess benefits over costs of $1,023,000. Excess benefits over costs for Plan FC2 is $994,000. Plan FC3B is not economically feasible (a negative excess benefits over costs of $184,000).

TABLE F-34
ECONOMIC ANALYSIS, INITIAL DETAILED STRUCTURAL PLANS
(5-3/8 Percent Discount Rate Analysis)

| Item | Plan FC2 | Plan FC2A | Plan FC3A | Plan FC3B |
|---|---|---|---|---|
| First Costs ($000) a/ | 20,882 | 22,957 | 58,211 | 90,041 |
| Annual Costs ($000) a/b/ | 1,429 | 1,565 | 4,199 | 6,500 |
| Annual Benefits ($000) b/ | | | | |
| All Categories | 2,423 | 2,588 | 5,263 | 6,316 |
| Excess Benefits over Costs ($000) c/ | 994 | 1,023 | 1,064 | -184 |
| Benefit-Cost Ratio (%) | | | | |
| Benefit-Cost Ratio with All Benefit Categories | 1.7 | 1.7 | 1.3 | 0.97 |

a/ April 2004 price levels (revised costs).
b/ Annualized with appropriate discount rate factors and 50-year project economic life.
c/ Calculated using all benefits except employment benefits.

SECTION 7 - PROJECT COSTS/ECONOMIC ANALYSIS,
REVISED COSTS DETAILED STRUCTURAL
FLOOD CONTROL ALTERNATIVE PLANS

REVISED PLANS/COSTS

General

112. Additional analysis was required in the plan selection process due to three issues or problems. A principal issue arose involving environmental concerns in Reach 6, Two Prairie Bayou area. Because the area is a particularly environmentally sensitive area, concerns were that flood control work in the area would cause adverse environmental impacts. Further, the flood control project proposed for the area would provide only a very low 3 percent reduction in average annual cleared acres flooded. Also, a comparison of annual project costs versus annual project benefits for Reach 6 indicated that proposed flood control work in this reach would not be economically feasible. Therefore, all plans were revised to remove costs, etc., for Two Prairie Bayou area (Reach 6). First costs/annual costs data in Table F-35 reflect revised costs with deletion of costs, etc., for the Two Prairie Bayou area (Reach 6). Costs for the Two Prairie Bayou area were deleted from each structural flood control alternative plan.

TABLE F-35
REVISED FIRST COSTS AND ANNUAL COSTS
PLAN SELECTION, DETAILED STRUCTURAL PLANS a/
(5-3/8 Percent Discount Rate Analysis)
($000)

| Item | Plan FC2 | Plan FC2A | Plan FC3A | Plan FC3B |
|---|---|---|---|---|
| First Costs a/ | | | | |
| First Costs | 19,204 | 21,344 | 58,628 | 90,852 |
| Interest During Construction b/ | 2,448 | 2,721 | 6,456 | 10,003 |
| Total Investment | 21,652 | 24,065 | 65,107 | 100,855 |
| Annual Costs | | | | |
| Interest and Sinking Fund | 1,255 | 1,395 | 3,774 | 5,848 |
| Operation and Maintenance | 48 | 48 | 436 | 689 |
| Major Rehabilitation (Channels and Weirs) | 7 | 7 | 7 | 7 |
| Fish and Wildlife Losses | c/ | c/ | c/ | c/ |
| Total Annual Costs | 1,310 | 1,450 | 4,217 | 6,544 |

a/ Costs for work in Two Prairie Bayou area are excluded. Costs reflect price levels of April 2004.
b/ Based on the use of estimated construction schedule expenditures for each plan and appropriate interest rate.
c/ Not available.

Plan Selection, NED Plan and
NED/NER Recommended Plan

113. Costs and associated benefits for work in the Two Prairie Bayou area (Reach 6) were removed from all detailed structural plans considered. Plan FC2A has the greatest amount of excess benefits over costs with $1,138,000 (Table F-36). Plan FC2 is a close second with excess benefits over costs of $1,113,000. Plan FC3B is not economically feasible (negative excess benefits over costs of $228,000). Of the plans presented, Plan FC3A is considered to provide the best mix of economic/environmental net beneficial impacts in comparison to other plans. Although excess benefits over costs are decreased by $93,000, significant environmental benefits will be obtained. Plan FC3A will allow manipulation of water within the wildlife management area to benefit both waterfowl and other indigenous species. Current floodwaters are negatively impacting standing timber in this area. Plan FC3A has $1,046,000 excess benefits over costs and a benefit-cost ratio of 1.30.

TABLE F-36
PLAN SELECTION/ECONOMIC ANALYSIS,
REVISED COST DETAILED STRUCTURAL PLANS
WITHOUT TWO PRAIRIE BAYOU (REACH 6) WORK COSTS/BENEFITS
(5-3/8 Percent Discount Rate Analysis)

| Item | Plan FC2 | Plan FC2A | Plan FC3A | Plan FC3B |
|---|---|---|---|---|
| First Costs ($000) a/ | 19,204 | 21,364 | 58,628 | 90,852 |
| Annual Costs ($000) a/b/ | 1,310 | 1,450 | 4,217 | 6,544 |
| Annual Benefits ($000) b/ | | | | |
| All Categories | 2,423 | 2,588 | 5,263 | 6,316 |
| Excess Benefits over Costs ($000) c/ | 1,113 | 1,138 | 1,046 | -228 |
| Benefit-Cost Ratio (%) | | | | |
| Benefit-Cost Ratio with All Benefit Categories | 1.9 | 1.8 | 1.3 | 0.97 |

a/ April 2004 price levels (revised costs).
b/ Annualized with appropriate discount rate factors and 50-year project economic life.
c/ Calculated using all benefits except employment benefits.

Revised Mitigation Costs

114. After the screening of proposed alternatives, additional information regarding mitigation requirements for Alternative FC3A was developed. This resulted in significant increases in mitigation costs for this alternative. Table F-37 presents the results of an analysis of these changes. First costs for this alternative increased to $68,807,900. Annual costs increased to $5,023,300. Excess net benefits decreased to $239,700 with a benefit costs ratio of 1.05.

TABLE F-37
PLAN SELECTION/ECONOMIC SUMMARY
WITHOUT TWO PRAIRIE BAYOU (REACH 6) WORK COSTS/BENEFITS
REVISED MITIGATION
(5-3/8 Percent Discount Rate Analysis)

| Item | Plan FC3A |
|---|---|
| First Costs a/ | 68,807,900 |
| Annual Costs a/ b/ | 5,023,300 |
| Annual Benefits b/ | 5,263,000 |
| All Categories | |
| Excess Benefits over Costs c/ | 239,700 |
| Benefit-Cost Ratio with all Benefit categories | 1.05 |

a/ April 2004 price levels (revised mitigation costs).
b/ Annualized with appropriate discount rate factors and 50-year project economic life.
c/ Calculated using all benefits except employment benefits.

115. Following this analysis, costs were allocated between Flood Control and Waterfowl Management in a combined plan described in the final report. The results for the incremental flood control plan are depicted in Table F-38.

TABLE F-38
FLOOD CONTROL COMPONENT OF COMBINED PLAN
PLAN SELECTION/ECONOMIC SUMMARY
WITHOUT TWO PRAIRIE BAYOU (REACH 6) WORK COSTS/BENEFITS
REVISED MITIGATION
(5-3/8 Percent Discount Rate Analysis)

| Item | Plan FC3A |
|---|---|
| First Costs a/ | 51,214,000 |
| Annual Costs a/ b/ | 3,886,500 |
| Annual Benefits b/ | 5,263,000 |
| All Categories | |
| Excess Benefits over Costs c/ | 1,376,500 |
| Benefit-Cost Ratio with all Benefit categories | 1.35 |

a/ April 2004 price levels (revised mitigation costs).
b/ Annualized with appropriate discount rate factors and 50-year project economic life.
c/ Calculated using all benefits except employment benefits.

Percent Reduction in Annual
Flood Damages, NED/NER Recommended Plan

115. Effectiveness of the NED/NER Recommended Plan can be determined by examination of the percentages of flood damage reduction. These percentages would result from implementation of the recommended project (Table F-40).

TABLE F-40
PERCENTAGE REDUCTION IN FLOOD DAMAGES,
NED/NER RECOMMENDED PLAN (PLAN FC3A)

| Flood Damage Category | Percent |
|---|---|
| Nonagricultural | |
| Public Roads and Bridges | 1.0 |
| Agricultural | |
| Crops | 23.0 |
| Noncrop | 20.0 |
| Baitfish Operations | 69.1 |

# ATTACHMENT C
# ADDITIONAL ECONOMIC ANALYSES (FLOOD CONTROL)

ATTACHMENT C

ADDITIONAL ECONOMIC ANALYSES (FLOOD CONTROL)

ECOSYSTEM RESTORATION AND
NONSTRUCTURAL FLOOD CONTROL

1. Reforestation of bottom-land hardwoods is a major purpose of this project. A total of 67,364 acres of currently cleared agricultural lands are proposed for reforestation as part of the proposed project. Approximately 13,546 acres of reforestation would be required to offset negative impacts associated with construction of the flood control features proposed. An additional 53,818 acres would be reforested to enhance the environment of the project area, and 1,804 acres would be utilized for riparian buffers.

2. Reforestation of these cleared lands would also provide significant nonstructural flood control benefits by changing land use from agricultural crops to forestland, which is more tolerant of frequent flooding. These benefits would accrue in addition to the benefits provided by the structural features proposed. An analysis of the impacts of this reforestation is included in this portion of the report.

3. Taking frequently flooded agricultural lands out of production would eliminate almost all flood damages currently accruing to these lands. Changing the land use to bottom-land hardwoods also provides significant environmental benefits.

4. Plan WC3A was selected as the recommended structural plan since it provided the highest level of NER/NED benefits. All reforestation analyses presented in the following paragraphs are based on the implementation of structural Plan FC3A.

Average Annual Acres

5. The reforestation is proposed to occur in lands below the elevation of the 2-year flood event. The assumption was made that lands would be reforested based on the proportion of land in each reach to total lands inundated by the 100-year frequency flood event. Reforestation of this frequently flooded land reduces average annual acres flooded significantly. Table 1 provides the result of the reanalysis of average annual acres flooded for the total 67,364 acres reforested and the 13,546 acres required for mitigation. Average annual acres decrease from 129,866 (with the recommended plan in place) to 117,922 with reforestation of 13,546 acres for mitigation requirements. Average annual acres would decrease to 76,246 with reforestation of the additional 53,818 acres for ecosystem restoration and 1, 804 acres for riparian buffers. These reductions in remaining average annual acres flooded provide additional flood damage reduction benefits from reduced damages to both agricultural crops and noncrop features.

TABLE 1
BAYOU METO FLOOD CONTROL
AVERAGE ACRES FLOODED
WITH REFORESTATION

| Reach | Without Project | With Plan FC3A | Mitigation Acres Reforested | All Ecosystem Lands Reforested |
|---|---|---|---|---|
| | Acres | | | |
| 1 | 15,201 | 10,481 | 9,665 | 6,825 |
| 2 | 17,266 | 17,266 | 15,645 | 10,569 |
| 3 | 8,762 | 7,516 | 6,817 | 5,280 |
| 4 | 6,729 | 4,501 | 4,079 | 2,600 |
| 5 | 11,924 | 8,514 | 7,719 | 4,905 |
| 6 | 11,941 | 11,624 | 10,521 | 7,435 |
| 7 | 4,059 | 2,803 | 2,586 | 2,832 |
| 8 | 42,667 | 26,654 | 24,167 | 13,586 |
| 9 | 6,321 | 5,375 | 4,883 | 2,838 |
| 10 | 18,728 | 18,728 | 16,971 | 10,226 |
| 11 | 19,638 | 16,404 | 14,869 | 9,150 |
| Total | 163,236 | 129,866 | 117,922 | 76,246 |

6. Table 2 shows that benefits to agricultural crops would be increased by an additional $759,000 to $5,533,000 with reforestation of 13,546 acres (mitigation requirements). With the reforestation of the remaining 53,818 acres (1,804 acres in riparian buffers), agricultural crop benefits increased an additional $2,174,000 to $7,707,000. Agricultural noncrop benefits would also increase with the reforestation of frequently flooded project area lands. Noncrop benefits would increase to $550,000 with reforestation of 13,546 acres and to $1,020,000 with reforestation of the entire 67,364 acres.

TABLE 2
BENEFITS FROM REFORESTATION
RECOMMENDED PLAN

| Benefits | Mitigation Requirements ($000) | Ecosystem Restoration ($000) |
|---|---|---|
| Crop | 5,533 | 7,707 |
| Noncrop | 550 | 1,020 |
| Road and Bridge | 2 | 2 |
| Baitfish | 265 | 265 |
| TOTAL | 6,350 | 8,994 |

7. The crop damage-per-acre values that were generated by the CACFDAS computer program for both the without- and with-project conditions were utilized in the analysis of the impacts of reforestation on crop benefits. The with-project condition that was utilized for this analysis was the recommended structural plan (Plan FC3A). This provided the damages expected without project and with implementation of the structural features of Plan FC3A. Nonstructural agricultural crop benefits consist of insurable flood losses. Insurable flood loss reduction was calculated for lands to be taken out of production through nonstructural flood damage reduction features. Insurable losses are calculated by reducing annual flood losses by subtracting flood losses not covered by insurance (noninsurable losses), the deductible portion of losses, and the annual cost of the insurance premium paid by farmers. The analysis of insurable flood losses is based on data provided by the U.S. Department of Agriculture, Risk Management Agency, and on information from their website. Producer premiums were calculated to be $249,000 for the 13,546 acres and $1,240,000 for the entire reforestation acreage.

8. The impacts of reforestation on agricultural noncrop items were based on damage factors utilized in earlier portions of Appendix F. Per-acre damage factors for without and with project would remain valid for the analysis reforestation impacts. Reforestation of agricultural lands would have the effect of almost eliminating reducing remaining flood damages to this category.

Damages per acre would be reduced from an average of $9.54 per acre without project to an estimated $0.84 per acre with reforestation. Some noncrop damages to field roads would still occur and some debris removal after flooding would be required.

9. Total benefits that would accrue with the reforestation of the 13,546 acres for mitigation requirements are estimated to be $6,350,000. Total benefits for reforestation of the entire 67,364 acres are estimated to be $8,994,000. Benefits for the road and bridge and baitfish categories would remain the same as calculated for the structural feature.

10. Costs for mitigation in the amount of 13,546 acres are shown in Table 3. Costs for real estate are estimated to be $20,959,000. These costs include land costs, acquisition costs, and contingencies. Costs to reforest these lands are estimated to be $2,235,000. Total cost for reforestation and lands is estimated to be $23,194,000. Annual costs for reforestation and lands are estimated to be $1,446,000 (Table 4). Total annual cost for all features, including operation and maintenance and major rehabilitation, is $5,854,000.

TABLE 3
COSTS OF MITIGATION
RECOMMENDED PLAN

| Costs | Amount ($000) |
|---|---|
| Lands | 16,499 |
| Contingencies | 4,125 |
| Planning Engineering and Design | 203 |
| Contingencies | 20 |
| Construction Management | 102 |
| Contingencies | 10 |
| Reforestation | 2,235 |
| TOTAL COST | 23,194 |

TABLE 4
ANNUAL COSTS
RECOMMENDED PLAN

| Item | Cost ($000) |
|---|---|
| Structural Features a/ | 4,408 |
| Mitigation | 1,446 |
| TOTAL ANNUAL | 5,854 |

a/ Includes annual operation and maintenance and major rehabilitation costs.

11. Table 5 presents total benefits, costs, excess benefits, and benefit-cost ratio for the recommended plan (Plan FC3A), including costs for the equivalent of required mitigation. Total annual benefits are $6,350,000, and annual costs are $5,854,000. There is an estimated $496,000 excess annual benefit over costs, and the benefit cost ratio is 1.08 to 1 at the current Federal discount rate of 5-7/8 percent.

TABLE 5
BENEFITS AND COSTS
RECOMMENDED PLAN WITH MITIGATION REQUIREMENTS

| Category | Amount |
|---|---|
| Annual Benefits ($000) | 6,350 |
| Annual Costs ($000) | 5,854 |
| Excess Benefits ($000) | 496 |
| Benefit-Cost Ratio | 1.08 |

"EXISTING DEVELOPMENT" ANALYSIS
(SENSITIVITY ANALYSES)

12. One test of the sensitivity of the economic analysis of the recommended plan of improvement is to utilize current year (2002) annual benefits only for comparison to the average annual costs. This would be an "existing development" analysis using only inundation reduction benefits determined for the current year (2002) or the year this study was completed. Table 6 presents the results of the existing development analysis for the recommended plan (NED/NER plan, Plan FC3A). Comparison of annual benefit/annual cost data in Table 6 indicates that with the current level benefits, estimated annual benefits are $207,000 less than annual costs at the 5-7/8 percent discount rate. The benefit-cost ratio would be 0.85.

TABLE 6
SENSITIVITY ANALYSIS
EXISTING DEVELOPMENT ANALYSIS,
RECOMMENDED PLAN (NED/NER PLAN/PLAN FC3A) (FINAL) a/
(5-7/8 Percent Discount Rate Analysis)

| Item | Recommended Plan of Improvement |
|---|---|
| First Costs ($000) a/ | |
| Annual Costs ($000) a/ | 4,408 |
| Annual Benefit ($000) b/ | 3,758 |
| Excess Benefits Over Costs ($000) | -650 |
| Benefit-Cost Ratio | 0.85 |

a/ October 2003 price levels (revised costs); excludes mitigation costs.

b/ 2002 (current year) values. Applicable benefit categories reduced by 1 percent to account for removal of agricultural cropland from crop production due to land required for project construction and mitigation requirements.

# GRAND PRAIRIE REGION AND BAYOU METO BASIN, ARKANSAS PROJECT

# BAYOU METO BASIN, ARKANSAS

# GENERAL REEVALUATION REPORT AND PRELIMINARY DRAFT ENVIRONMENTAL IMPACT STATEMENT

# VOLUME 11 APPENDIX G

# REAL ESTATE AGRICULTURAL WATER SUPPLY COMPONENT

## Volume 11, Appendix G.

# REAL ESTATE AGRICULTURAL WATER SUPPLY COMPONENT

## PURPOSE OF REAL ESTATE PLAN

The subject of this report is the Bayou Meto Project. This project is a water supply project designed to supply water for irrigation to an area in central Arkansas. In 1996, Congress reauthorized the original Grand Prairie Region and Bayou Meto Basin flood control project with a broadened scope of work. Section 363(a), Project Reauthorizations, of the Water Resources Development Act (WRDA) of 1996, Public Law 104-303, is quoted as follows:

> "Grand Prairie Region and Bayou Meto Basin, Arkansas.--The project for flood control, Grand Prairie Region and Bayou Meto Basin, Arkansas, authorized by section 204 of the Flood Control Act of 1950 (64 Stat. 174) and deauthorized pursuant to section 1001(b) of the Water Resources Development Act of 1986 (33 U.S.C. 579a(b)), is authorized to be carried out by the Secretary; except that the scope of the project includes ground water protection and conservation, agricultural water supply, and waterfowl management if the Secretary determines that the change in the scope of the project is technically sound, environmentally acceptable, and economic, as applicable."

Congressional language contained in the Energy and Water Appropriations Act, 1998, directed the Corps to initiate a reevaluation of the Bayou Meto Basin. The fiscal year 1999, 2000, 2001, and 2002 Appropriations Acts provided funding to continue the reevaluation.

## DESCRIPTION OF GENERAL AREA

The project is located within Prairie, Lonoke, Jefferson, Pulaski, and Arkansas Counties in central Arkansas. This area is situated approximately 20 miles southeast of Little Rock, Arkansas. The northern geographic boundary of the project generally includes Ranges 7 West through 10 West of Township 3 North, in Lonoke County, Arkansas. The southern geographic boundary includes Ranges 7 West through 9 West of Township 4 South in Jefferson County, Arkansas. The eastern boundary is generally the western Prairie County line. The western boundary is generally the Pulaski County line. Small portions of the project lie in the northeastern corner of Arkansas County and northeastern corner of Prairie County. A small portion of the project including the main pumping station is located near the eastern boundary of Pulaski County, Arkansas. Lonoke, Arkansas is the main town located in the project area. Primary access to the area is via Interstate 40, which runs through the northern part of the project area. Additional US and state highways and county roads provide easy travel throughout the area. Though numerous towns with residential, commercial and industrial communities were observed throughout the project area, the area is generally rural agricultural. Several grain-processing plants are located in or near these communities.

Major business and employment patterns include a multitude of jobs related to crop production, processing, and sales. Other employment in the area consists of manufacturing, construction, retail, and numerous service related businesses.

Land use throughout the area is mainly agricultural and aquaculture. Predominant crops are rice, soybeans, wheat, cotton, and milo. This area is primarily known for its rice production. Baitfish is another important commodity produced within the project boundaries. Some areas of low, wet and undeveloped woodland are within the project area. These areas are very desirable duck habitat and there has been a trend to purchase these areas for hunting purposes. Amenities and services are located in numerous small and medium sized towns throughout the project area.

The climate in this area is characterized by warm summers, mild winters, and fairly abundant rainfall. The average daily temperature in July is about 81.5 degrees F. and in January is about 39.5 degrees F. The total annual rainfall is about 52 inches and is well distributed throughout the year. Drainage in the area is generally southeastward through a system of natural and improved drainage ways and connecting artificial channels. This system of streams, channels, and bayous eventually flows into the White, Cache, and Arkansas Rivers. The ground water supply in this area is decreasing because demand has increased. Depth to the ground water table has increased, especially in agricultural areas, because of an increased use of water for irrigation, fish farming, and other uses.

## DESCRIPTION OF PROJECT

This is a water supply project covering an area of approximately 393,000 acres. Right-of-way information provided Real Estate Division indicates 6,787 acres will be required for project construction, impacting an estimated 1603 individual ownerships. The plan for construction of this project has been separated into 19 items. The primary features of the project include an inlet channel and pumping station, which will be constructed on the east side of the Arkansas River 8 miles due south of Interstate 40. Two other pumping stations with reservoirs will be constructed. One, which is construction item 14, is located 3 miles due north of Lonoke, Arkansas. The other is construction item 8, which lies 3 miles southwest of Lonoke, Arkansas. One additional pumping station without a reservoir is located in item 5 in the south central portion of the project. Other features include a system of canals, pipelines, check structures, and control center to be used for distribution of the water throughout the project area. A series of turnout structures, siphons, and pumps will also be installed to facilitate the distribution of the water.

The purchase of approximately 1324 acres of agricultural cropland from willing sellers will be acquired in fee title to offset losses of wetlands and woodlands due to project construction items. Approximately 5 ownerships will be purchased for the mitigation lands. Operation of the finished project will be the responsibility of the Arkansas Natural Resources Commission. An additional 36,729 acres will be needed towards construction and installation of a Waterfowl Management Plan, discussed later in this report. This will impact an additional 167 ownerships.

## DESCRIPTION OF WATER SUPPLY FEATURES

CONSTRUCTION ITEM 1

Item 1 is located along the western edge of the project boundaries, approximately 8 miles due south of Interstate 40. It will be adjacent to the Arkansas River, located on the west boundary of this construction item. See map in Exhibits.

This item calls for the construction of an inlet channel, pumping station, and reservoir as the initial source of water for the entire project. Water will enter from the Arkansas River via an inlet channel then be pumped through the pumping station into a reservoir. The real estate needed for construction of the inlet channel, pumping station, and reservoir will be purchased in fee.

The right-of-way requirements for Item 1 are as follows:

| | | | |
|---|---|---|---|
| 1. | Fee Simple Estate | = | 34.00 acres |
| 2. | Restrictive Channel Improvement Easement | = | 106.83 acres |

CONSTRUCTION ITEM 2

Item 2 is located in the northwestern corner of the project boundaries and is situated southwest of Lonoke, AR. This item connects to Item 1 along the western border of the project. See map in Exhibits.

This item calls for the construction of a large channel leading to an existing stream carrying water to the southwest portion of the project, and another pumping station and reservoir located just southwest of Lonoke, Arkansas. Some pipelines needed to distribute the water generated at the pumping station located in Item 1 are also provided water via this large channel. The project's design also incorporates a network of existing streams and channels that will also be used in the water distribution system. It will be necessary to construct weirs in these existing streams and channels in order to provide the necessary water depth to facilitate pumping from these streams and channels. A series of check structures, turnout structures, siphons, and small pumps will also be installed to facilitate the distribution of the water. A series of box culverts and pipe culverts will be constructed where needed for road crossings.

The right-of-way requirements for Item 2 are as follows:

| | | | |
|---|---|---|---|
| 1. | Fee Simple | = | 3.00 acres |
| 2. | Restrictive Channel Improvement Easement | = | 511.70 acres |
| 3. | Pipeline Easement | = | 1.33 acres |

CONSTRUCTION ITEM 3A

Item 3A borders Item 2 along its northern boundary. It is in the west central portion of the project's boundaries. See map in Exhibits.

This item calls for the modification of an existing stream and a series of pipelines needed to distribute the water generated at the pumping station located in Item 1. It will be necessary to construct weirs in this existing stream in order to provide the necessary water depth to facilitate pumping from this stream. A series of turnout structures, siphons, and small pumps will also be installed to facilitate the distribution of the water. Box culverts and bridges will be constructed where needed for road crossings.

The right-of-way requirements for Item 3A are as follows:

| | | | |
|---|---|---|---|
| 1. | Restrictive Channel Improvement Easement | = | 228.61 acres |
| 2. | Pipeline Easement | = | 184.43 acres |

CONSTRUCTION ITEM 3B

Item 3B borders Item 3A along its northern boundary. It is located in the southwestern portion of the project's boundaries. See map in Exhibits.

This item calls for the construction of a new channel between two existing streams and a series of pipelines needed to distribute the water generated at the pumping station located in Item 1. It will be necessary to construct weirs in these existing streams in order to provide the necessary water depth to facilitate pumping from this stream. A series of turnout structures, siphons, and small pumps will also be installed to facilitate the distribution of the water. Box culverts and bridges will be constructed where needed for road crossings.

The right-of-way requirements for Item 3B are as follows:

| | | | |
|---|---|---|---|
| 1. | Restrictive Channel Improvement Easement | = | 138.00 acres |
| 2. | Pipeline Easement | = | 182.57 acres |

CONSTRUCTION ITEM 4

Item 4 borders Item 2 along its southern boundary. It is in the northwest corner of the project's boundaries. This area is located just south of Interstate 40. See map in Exhibits.

This item calls for the construction of a new channel and a series of pipelines needed to distribute the water generated at the pumping station located in Item 1. A series of turnout structures, siphons, and small pumps will also be installed to facilitate the distribution of the water. Box culverts and bridges will be constructed where needed for road crossings.

The right-of-way requirements for Item 4 are as follows:

| | | |
|---|---|---|
| 1. Restrictive Channel Improvement Easement | = | 207.66 acres |
| 2. Pipeline Easement | = | 66.75 acres |

CONSTRUCTION ITEM 5

Item 5 covers a large area which generally extents form the main channel in item 2 southward through the center of the project all the way to the southern limits of the project. See map in Exhibits.

This item calls for the construction of a series of channels and pipelines needed to distribute the water generated at the pumping station located in Item 1. The project's design incorporates a network of existing streams and channels that will also be used in the water distribution system. One small pumping station will need to be constructed in this item. It will be necessary to construct weirs in these existing streams and channels in order to provide the necessary water depth to facilitate pumping from these streams and channels. A series of check structures, turnout structures, siphons, and small pumps will also be installed to facilitate the distribution of the water. A series of pipe culverts will be constructed where needed for road crossings.

The right-of-way requirements for Item 5 are as follows:

| | | |
|---|---|---|
| 1. Fee Simple Estate | = | 2.00 acres |
| 2. Restrictive Channel Improvement Easement | = | 1145.56 acres |
| 3. Pipeline Easement | = | 403.71 acres |

CONSTRUCTION ITEM 6

Item 6 is located in the eastern central portion of the project boundaries. It extends from Lonoke, Arkansas on its northwestern boundary to the Praire County line on its eastern boundary. See map in Exhibits.

This item calls for the construction of a series of channels and pipelines needed to distribute the water generated at the second pumping station located in Item 8. The project's design incorporates a network of existing streams and channels that will also be used in the water distribution system. It will be necessary to construct weirs in these existing streams and channels in order to provide the necessary water depth to facilitate pumping from these streams and channels. A series of turnout structures, siphons, and small pumps will also be installed to facilitate the distribution of the water. A series of pipe culverts will be constructed where needed for road crossings.

The right-of-way requirements for Item 6 are as follows:

| | | |
|---|---|---|
| 1. Restrictive Channel Improvement Easement | = | 417.62 acres |
| 2. Pipeline Easement | = | 189.09 acres |

CONSTRUCTION ITEM 7A

Item 7A borders the southern boundary of Item 6 and extends southeastward to the eastern border at the Prairie County line. Then southward through the center of the project all the way to the southern limits of the project. See map in Exhibits.

This item calls for the construction of a series of channels and pipelines needed to distribute the water generated at the pumping station located in Item 1. The project's design incorporates a network of existing streams and channels that will also be used in the water distribution system. It will be necessary to construct weirs in these existing streams and channels in order to provide the necessary water depth to facilitate pumping from these streams and channels. A series of turnout structures, siphons, and small pumps will also be installed to facilitate the distribution of the water. A series of pipe culverts will be constructed where needed for road crossings.

The right-of-way requirements for Item 7A are as follows:

| | | | |
|---|---|---|---|
| 1. | Restrictive Channel Improvement Easement | = | 880.50 acres |
| 2. | Pipeline Easement | = | 53.76 acres |

CONSTRUCTION ITEM 7B

Item 7B borders the southern boundary of Item 7A, and extends southeastward to the southeastern border of the project, which is located in the northwestern corner of Arkansas County. See map in Exhibits.

This item calls for the construction of a series of channels and pipelines needed to distribute the water generated at the pumping station located in Item 1. It will be necessary to construct weirs in these existing streams and channels in order to provide the necessary water depth to facilitate pumping from these streams and channels. A series of turnout structures, siphons, and small pumps will also be installed to facilitate the distribution of the water.

The right-of-way requirements for Item 7B are as follows:

| | | | |
|---|---|---|---|
| 1. | Restrictive Channel Improvement Easement | = | 216.00 acres |
| 2. | Pipeline Easement | = | 182.00 acres |

CONSTRUCTION ITEM 8

Item 8 is located about 3 miles southwest of Lonoke, Arkansas. See map in Exhibits.

This item calls for the construction of a second pumping station needed to re-lift and distribute the water generated at the pumping station located in Item 1. The project's design incorporates a pumping station and reservoir that will be used in the water distribution system.

The right-of-way requirements for Item 8 are as follows:

| | | |
|---|---|---|
| 1. Fee Simple | = | 37.84 acres |

CONSTRUCTION ITEM 9

Item 9 extends eastward from the pumping station located in item8. It is located between the southern boundary of item 11 and the northern boundary of item6. See map in Exhibits.

This item calls for the construction of a large channel leading to three existing streams carrying water to the eastern portions of the project. The project's design also incorporates a network of existing streams and channels that will also be used in the water distribution system. It will be necessary to construct weirs in these existing streams and channels in order to provide the necessary water depth to facilitate pumping from these streams and channels. A series of check structures, turnout structures, and siphons will also be installed to facilitate the distribution of the water. A series of box culverts and pipe culverts will be constructed where needed for road crossings.

The right-of-way requirements for Item 9 are as follows:

| | | |
|---|---|---|
| 1. Fee Simple | = | 2.00 acres |
| 2. Restrictive Channel Improvement Easement | = | 183.17 acres |

CONSTRUCTION ITEM 10

Item 10 extends northward from the pumping station located in item 8. It is located between the eastern boundary of item 12 and the western boundary of item 13. See map in Exhibits.

This item calls for the construction of a large channel leading to a third pumping station and reservoir located just 3.5 miles north of Lonoke, Arkansas. Some pipelines needed to distribute the water from this channel, branch off in this item of construction before continuing into other construction items. A series of check structures, turnout structures, and siphons will also be installed to facilitate the distribution of the water. A series of box culverts and pipe culverts will be constructed where needed for road crossings.

The right-of-way requirements for Item 10 are as follows:

| | | |
|---|---|---|
| 1. Fee Simple Estate | = | 1.00 acre |
| 2. Restrictive Channel Improvement Easement | = | 308.64 acres |
| 3. Pipeline Easement | = | 2.52 acres |

Relocation damages will occur in this item of construction due to construction of the new channel. Four aquaculture ponds located near the northwest corner of this item will have to be drained and the stock relocated to other ponds or the market as a result of construction. Previous occurrences of this on other projects have resulted in costs of $50,000 per pond for

relocation costs. These costs result from the multiple seining required to remove the existing fish stock from the ponds and relocate them to other suitable ponds or the market.

CONSTRUCTION ITEM 11

Item 11 is located in the northeastern portion of the project boundaries. It extends from Lonoke, Arkansas on its western boundary to the Prairie County line on its eastern boundary. See map in Exhibits.

This item calls for the modification of a series of existing stream and construction of new pipelines needed to distribute the water generated at the second pumping station located in Item 8. The water pumped through the new channels located in item 9 feeds this portion of the system. It will be necessary to construct weirs in these existing streams and channels in order to provide the necessary water depth to facilitate pumping from these streams and channels. A series check, structures, turnout structures, siphons, and small pumps will also be installed to facilitate the distribution of the water. A series of pipe culverts will be constructed where needed for road crossings. A control building will be constructed near the western limits of this item to control the water delivery system.

The right-of-way requirements for Item 11 are as follows:

| | | | |
|---|---|---|---|
| 1. | Fee Simple Estate | = | 6.00 acres |
| 2. | Restrictive Channel Improvement Easement | = | 191.29 acres |
| 3. | Pipeline Easement | = | 70.35 acres |

CONSTRUCTION ITEM 12

Item 12 borders Item 10 along its southeastern boundary. It is in the northwest corner of the project's boundaries. This area is located north of Interstate 40. See map in Exhibits.

This item calls for the construction of a series of pipelines needed to distribute the water generated at the pumping station located in Item 8. Box culverts and bridges will be constructed where needed for road crossings.

The right-of-way requirements for Item 12 are as follows:

| | | | |
|---|---|---|---|
| 1. | Pipeline Easement | = | 25.95 acres |

CONSTRUCTION ITEM 13

Item 13 borders Item 10 along its northwestern boundary. It is in the northwest corner of the project's boundaries. This area is located north of Interstate 40. See map in Exhibits.

This item calls for the construction of a series of pipelines needed to distribute the water generated at the pumping station located in Item 8. Box culverts and bridges will be constructed where needed for road crossings.

The right-of-way requirements for Item 13 are as follows:

1. Pipeline Easement = 13.46 acres

CONSTRUCTION ITEM 14

Item 14 is located about 3.5 miles north of Lonoke, Arkansas. See map in Exhibits.

This item calls for the construction of a third pumping station needed to re-lift and distribute the water generated at the pumping station located in Item 1. This pumping station will provide the necessary water to service the northeaster portion of the project. The project's design incorporates a pumping station and reservoir that will be used in the water distribution system.

The right-of-way requirements for Item 14 are as follows:

1. Fee Simple = 33.00 acres

CONSTRUCTION ITEM 15

Item 15 extends eastward from the pumping station located in item 14. It is located between the southern boundary of item 16 and the northwestern boundary of item 11. See map in Exhibits.

This item calls for the construction of a large channel leading to the supply systems in items 16 and 17. A check structure and 3 siphons will be installed to facilitate the distribution of the water. A series of box culverts and pipe culverts will be constructed where needed for road crossings.

The right-of-way requirements for Item 15 are as follows:

1. Fee Simple Estate = 1.00 acre
2. Restrictive Channel Improvement Easement = 68.04 acres

CONSTRUCTION ITEM 16

Item 16 is located in the extreme north central limits of the project boundary. It is bordered by items 12, 15, and 17 along its southern boundary. This area is located north of Interstate 40. See map in Exhibits.

This item calls for the construction of a series of pipelines needed to distribute the water generated at the pumping station located in Item 14. Box culverts and bridges will be constructed where needed for road crossings.

The right-of-way requirements for Item 16 are as follows:

1. Pipeline Easement = 37.60 acres

CONSTRUCTION ITEM 17

Item 17 is located in the extreme northeastern portion of the project boundaries. It extends from the eastern limits of item 15 to the eastern limits of the project boundary. The northeastern portion of this item is located in the northwest corner of Prairie County. See map in Exhibits.

This item calls for the modification of a series of existing stream and construction of new channels and pipelines needed to distribute the water generated at the third pumping station located in Item 14. The water pumped through the new channels located in item 15 feeds this portion of the system. It will be necessary to construct weirs in these existing streams and channels in order to provide the necessary water depth to facilitate pumping from these streams and channels. A series check structures, turnout structures, siphons, and small pumps will also be installed to facilitate the distribution of the water. A series of pipe culverts will be constructed where needed for road crossings.

The right-of-way requirements for Item 11 are as follows:

1. Fee Simple Estate = 1.00 acre
2. Restrictive Channel Improvement Easement = 475.46 acres
3. Pipeline Easement = 173.22 acres

## DESCRIPTION OF WATERFOWL MANAGEMENT PLAN FEATURES

Waterfowl Habitat Restoration via Bottomland Hardwood (BLH) Restoration and Herbaceous Wetland Complex (HWC)

23,000 acres of cleared land are targeted for bottomland hardwood (BLH) restoration, and 10,000 acres of cleared land are targeted for tall-grass prairie (HWC) restoration. The Big Ditch Area, Bayou Meto WMA/Big Ditch Connector, and Wabbeseka Scatters were identified by an inter-agency team as high priority BLH restoration areas. The HWC restoration effort will focus on lands situated near the Grand Prairie and Long Prairie regions. See map on page 22 to reference these general locations.

In accordance with the Corps' Environmental Operating Principles and waterfowl management authorization, the inter-agency team formulated features that provide waterfowl management benefits primarily through habitat restoration. Waterfowl features were justified based solely on benefits provided through habitat restoration and improvements. Conservation easements will be obtained from willing participants for these lands that are currently in agricultural production, converting them to bottomland hardwoods or tall-grass prairie - a change in highest and best use. These areas will not be intensely managed and monitoring will only be performed to ensure appropriate habitat succession.

Approximately 115 ownerships will be required for BLH and 50 ownerships for HWC. Landowners in the area are genuinely receptive to this approach of using a conservation easement to convert certain agricultural lands into habitat restoration. NRCS acquires similar conservation easements in perpetuity in this area for its Wetlands Reserve Program (WRP). Landowners have already contacted USACE and the local sponsor expressing interest in participating in the waterfowl management component of the project.

The proposed estate has been modified from a previously proposed estate to address restrictions in public access and reservation of timber harvesting to insure there are no negative impacts to the project's purpose and benefits. This easement estate acquires the minimal interests required for project purposes and does not provide for public access. Provisions for public access or recreation are not consistent with the authorized project purpose of waterfowl management, and neither public access nor recreation is required to achieve the projected waterfowl benefits. Granting public access is not a right generally associated with conservation easements used for purposes similar to this project. Other Federal Agencies that manage lands for waterfowl do not necessarily always allow public access to those lands. The NRCS WRP conservation easement previously mentioned does not acquire public access. Landowners in the project area would not be receptive to granting the rights for public access to lands conveyed in these easements. Landowners could be liable for accidents and responsible for damages that result from public access. Acquiring easements with public access would increase costs associated with the actual easement value and costs associated with the increased difficulty in acquiring the easements from willing participants. Granting the right of public access gives up an enormous right of private land ownership and would be tantamount to granting fee.

Riparian Buffers

2,643 acres of cleared land in designated areas will be restored in 100-foot wide buffers along both banks (200-foot wide total) of streams that are affected by the water supply and/or flood-control components. These buffers will be acquired from willing sellers and situated in cleared areas that run alongside the channel improvement easements required for project construction and will contain an additional 40± feet on one side to coincide with the 60± foot channel easement plus 100-foot in width along the opposite bank. Landowners cannot cut trees from these areas and only minimal clearing to perform channel maintenance will be allowed. Restrictive Channel Improvement Easements will be acquired for these features. The additional rights pertaining to the restricted channel improvement easement will allow for an environmentally friendly and sound design. This design is strongly supported by the local agencies and local sponsors, which is in accordance with operating principle #7, which requires USACE to "Respect the views of individuals and groups interested in Corps activities." Riparian hardwood buffers will be restored and protected along both sides of project area channels that are devoid of an adequate riparian buffer. Also, 92 drop-pipe structures will be installed in small tributary streams. This design will significantly benefit water quality and wildlife habitats in both the aquatic realm and the riparian buffer area. Moreover, this design will also reduce the frequency and extent of channel maintenance.

A standard channel improvement easement does not provide for public access and the additional restrictive language proposed for this estate also does not provide for public access. Provisions for public access or recreation are not consistent with the authorized project purpose of waterfowl management, and neither public access nor recreation is required to achieve the projected waterfowl benefits. Granting public access is not a right generally associated with channel improvement easements similar to this project. Again, the NRCS WRP conservation easement previously mentioned does not acquire public access and is similar in outputs to the vegetative enhancements provided for in this easement. Landowners in the project area would not be receptive to granting the rights for public access to lands conveyed in these easements. Landowners could be liable for accidents and responsible for damages that result from public access. Acquiring easements with public access would increase costs associated with the increased difficulty in acquiring the easements from willing participants. Granting the right of public access gives up an enormous right of private land ownership and would be tantamount to granting fee.

Moist-Soil Area

Moist-soil habitat will be created on 240 acres of cleared land to provide forage for waterfowl. This land will have to be acquired in fee simple because it takes intensive management, and could be subject to eminent domain. Arkansas Game & Fish Commission will likely assume management; therefore, moist-soil area should be constructed in vicinity of Bayou Meto WMA. This feature will have public access. Approximately 1 ownership will be required for this feature.

Bayou Meto Wildlife Management Area (WMA) Features

The 32,000-acre Bayou Meto WMA is the largest management area operated by the Arkansas Game and Fish Commission. It is managed primarily for waterfowl and is one of the largest public use areas in the state. Approximately 846 acres of non-Federal Sponsor owned lands

located within the WMA will be used to support waterfowl management features designed to improve hydrology within the WMA. These lands are located within and along channels that require improved drainage and restoration to alleviate dying timber throughout the 32,000-acre WMA. The real estate interest will be consistent with a Restrictive Channel Improvement easement, allowing for channel improvements and vegetative plantings and enhancements. These 846 acres have public access as a part of the WMA.

Additional lands for a pumping station and related channel work will be needed adjacent to the WMA on private lands to support the features located within the WMA. Those features are addressed in the Flood Control Component and REP for MVK.

## NAVIGATIONAL SERVITUDE

Memphis District River Engineering Division indicated that no waterways within the project area are subject to navigational servitude as maintained by the United States.

## LEGAL DESCRIPTION

Legal descriptions of the lands located within the project area have not been prepared. This will be accomplished after surveys, plans, and specifications are complete and the right of way requirements are available.

## DESCRIPTION OF ESTATES

Right-of-way for this project will be acquired through the use of four estates. The estates are: Fee Simple, Restricted Channel Improvement Easement, Water Pipeline Easement, and Conservation Easement. The Restrictive Channel Improvement Easement and the Conservation Easement are non-standard estates that will have to be approved by HQUSACE.

FEE SIMPLE

*The fee simple title to Tract No.____ , subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.*

RESTRICTIVE CHANNEL IMPROVEMENT EASEMENT **(This is a non-standard easement that will need to be approved by headquarters)**

*A perpetual and assignable right and easement to construct, operate, and maintain channel improvement works in, on, over and across (the land described in Schedule A) (Tracts Nos. _____ and _____), and to construct and maintain weirs at selected locations, together with all right, title and interest in and to the timber, growing crops, buildings, improvements and/or other obstructions situated thereon; to excavate, dredge, cut away, and remove any and all of said land, to place thereon dredged or excavated material; including the further right to seed and revegetate the embankment, to maintain the embankment with such vegetation, to prohibit the mowing, burning, and use of the land for growing crops or grazing, to prohibit the reshaping or removal of earth or other material from said land, and to prohibit all vehicular access to the land, and for such other purposes as may be required in*

*connection with said work of improvement; reserving, however, to the owners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.*

WATER PIPELINE EASEMENT

*A perpetual and assignable easement and right-of-way in, on, over and across the land, for the location, construction, operation, maintenance, alteration, repair and patrol of a water pipeline; together with the right to trim, cut, fell and remove there from all trees, underbrush, obstructions and other vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.*

CONSERVATION EASEMENT **(This is a non-standard easement that will need to be approved by headquarters)**

*A perpetual and assignable right and easement in, on, over, and across (the land described in Exhibit A) (Tract Nos. and ) including, but not limited to the right to: (a) alter, plant, remove, manage, and control vegetation, by chemical or mechanical means, (b) alter, manage, and control topography by means of earth moving equipment to contour as necessary to achieve project benefits, and (c) alter manage, and control hydrology by means of constructing structures and channels and/or elimination of structures and channels as necessary to achieve project benefits, all for the purpose of establishing, protecting and enhancing the propagation of indigenous bottomland hardwood species of trees, as part of the Bayou Meto Basin Project, (d) restrict public access to the easement area, to such public access as is consistent with the Bayou Meto Basin Project's purpose and benefits, and as may be approved in writing by the District Engineer, U.S. Army Engineer District Memphis, or his duly authorized representative, (e) prohibit: 1) the construction or maintenance of any structure or building for permanent human habitation on said land, or the construction or maintenance of any other structures on the land, except as may be approved in writing by the District Engineer, U.S. Army Engineer District, Memphis, or his duly authorized representative, 2) the burning or cutting of trees, except as may be approved, when required for the proper operation, maintenance repair and replacement of the Project, in writing by the District Engineer, U.S. Army Engineer District, Memphis ,or his duly authorized representative, 3)the grazing of livestock and all other commercial agricultural activities, 4) the disposal of trash, garbage, vehicle bodies, and/or other debris and refuse, 5) the excavation or placement of any landfill, disruption or alteration of natural water courses, lakes, ponds, marshes or wetlands; Reserving, however, to the owners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired, including the right to receive all revenues generated from the encumbered area, subject, however, to existing easements for public roads and highways, public utilities, railroads, and pipelines.*

## PROJECT SPONSOR'S ABILITY TO ACQUIRE REAL ESTATE

The Bayou Meto Project is a cost-shared undertaking between the U.S. Army Corps of Engineers and the Arkansas Natural Resources Commission (ANRC). While the ANRC has provided a letter of intent to act as the non-Federal sponsor for the project, the Bayou Meto Water Management District has formed the legal entity to be a legally and financially capable partner with taxing authority. The Bayou Meto Water Management District will be responsible for providing or purchasing all lands, easements, and right-of-way and performing all necessary relocations for the project. Considering this partnership, the sponsor has both the ability to acquire the necessary rights-of-way and the financial capability to do so.

## SPONSOR-OWNED REAL ESTATE RIGHTS

The Bayou Meto WMA contains a total of 32,000 acres, of which 846 acres will be used for waterfowl management features. The Arkansas Game and Fish Commission, through the State of Arkansas, owns the land located in the Bayou Meto WMA. The Arkansas Natural Resources Commission and the Bayou Meto Water Management District are considered to be State agencies.

## INDUCED FLOODING

No induced flooding outside the feature boundaries is expected to be caused by the construction, operation, or maintenance of this project.

## CEMETERIES

All cemeteries will be avoided during project construction.

## BASELINE COST ESTIMATE FOR REAL ESTATE

| | |
|---|---|
| Federal Acquisition (includes 91-646)® | $ 1,700,000 |
| Non-Federal Sponsor | |
| Lands & Damages ® | $ 56,400,000 |
| Acquisition (includes 91-646)® | $ 7,900,000 |
| Total Real Estate Cost | $ 66,000,000 |

## PUBLIC LAW (PL) 91-646

Relocation damages will occur in one item of construction due to construction of the new channel. Four aquaculture ponds located near the northwest corner of this item will have to be drained and the stock relocated to other ponds or the market as a result of construction. Previous occurrences of this on other projects have resulted in costs of $50,000 per pond for relocation costs. These costs result from the multiple seining required to remove the existing fish stock from the ponds and relocate them to other suitable ponds or the market. The Arkansas Natural Resources Commission is fully aware of their responsibilities under PL-91-646.

## MINERAL ACTIVITY

There are no visual signs of mineral activity existing within the project area.

## ZONING ORDINANCES

The majority of the lands included in this project are located in rural agricultural areas with no zoning. However, some areas located near towns may have some zoning that should not effect project construction.

## UTILITIES AND FACILITIES RELOCATION'S

New bridges at sites where new canals cross existing roads and replacement or modification of bridges across existing ditches will be required at sixty-six crossings to adequately pass the design flows. These sites include 15 state highway bridges (new canals) and 51 (45 on new canals and 6 on existing ditches) county bridges. Bridge designs are based on Arkansas State Highway Department of Transportation standards and current County bridge standards. No railroads will be impacted by the project.

Utilities at 159 locations will be impacted by the project. These utilities include overhead electric lines, telephone cables, waterlines, gas service lines, fiber optic cables, ammonia pipelines, and television cables. The extent of utility alterations necessary to accommodate

the project is predicated on providing horizontal and vertical clearance for project construction, operation and maintenance.

A list and description of all relocations required for project implementation is presented in Volume 5, Appendix B, Section VI, Relocations. Relocations costs are included in the project cost data presented in Volume 6, Appendix B, Section IX, Cost Engineering Report.

## REAL ESTATE ACQUISITION SCHEDULE

According to the Memphis District Project Management Branch, the schedule with tentative major milestones for the separate items of work in the proposed project are detailed and can be found in the Project Management Plan.

## HAZARDOUS, TOXIC, AND RADIOACTIVE WASTES

No evidence of existing or potential HTRW sites was noted during an inspection of the project right-of-way. Based upon information gathered during the Corps of Engineers assessment, it is reasonable to assume that no HTRW will be encountered within or near the project. There should be no impact to real estate by HTRW.

## SUPPORT OR OPPOSITION BY LANDOWNERS

No specific opposition is known.

## NOTICE TO SPONSOR

The sponsor has been notified of the risks associated with acquisition of lands prior to signing of the Project Cooperation Agreement.

## OTHER REAL ESTATE ISSUES

A contingency of 25% percent of the total for lands and damages is included in the estimate of costs of the construction items. A contingency of 35% of the total for lands and damages is included in the estimate of cost for the Waterfowl Management and Restoration Plan and Mitigation items of the project. This higher amount for these two items is due to the uncertainty of availability of these lands from willing sellers. The amount includes items such as allowing for:

a. Minor changes in project alignment.

b. Possible increases in property values which could occur between date of this report and the time acquisition is completed.

c. Examination of deeds or other public records may disclose additional ownership unknown as of the date of the report.

d. Any presently unknown characteristics of the lands in the project area, which would influence the lands values, e.g. irrigation, undetected improvements, easements.

Real Estate Plan prepared by:

Eric S Greever

Eric Greever, Staff Appraiser

Real Estate Plan approved by:

Michael V. Lawless

Michael V. Lawless
Acting Chief of Real Estate

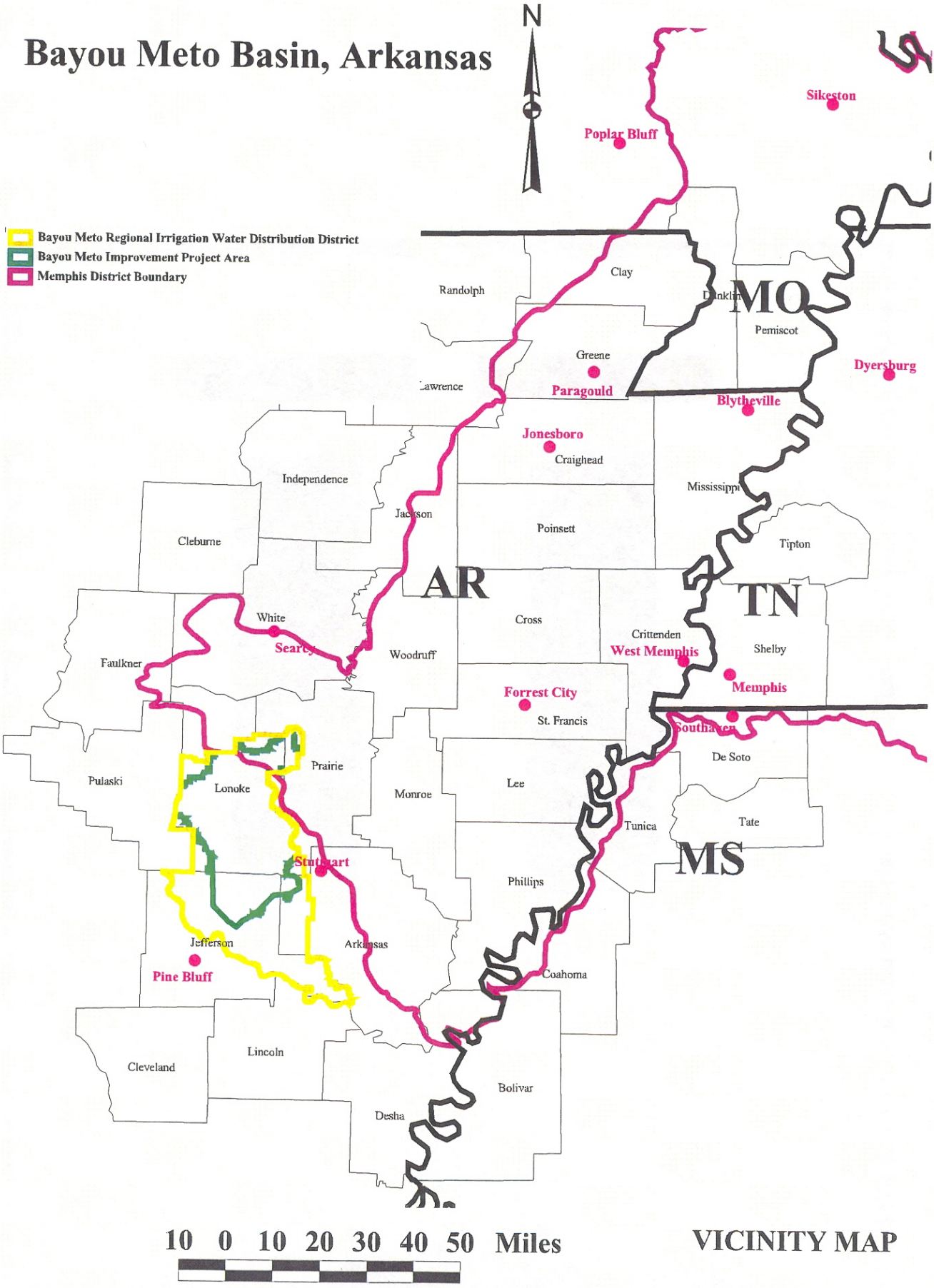
Real Estate Plan reviewed by:

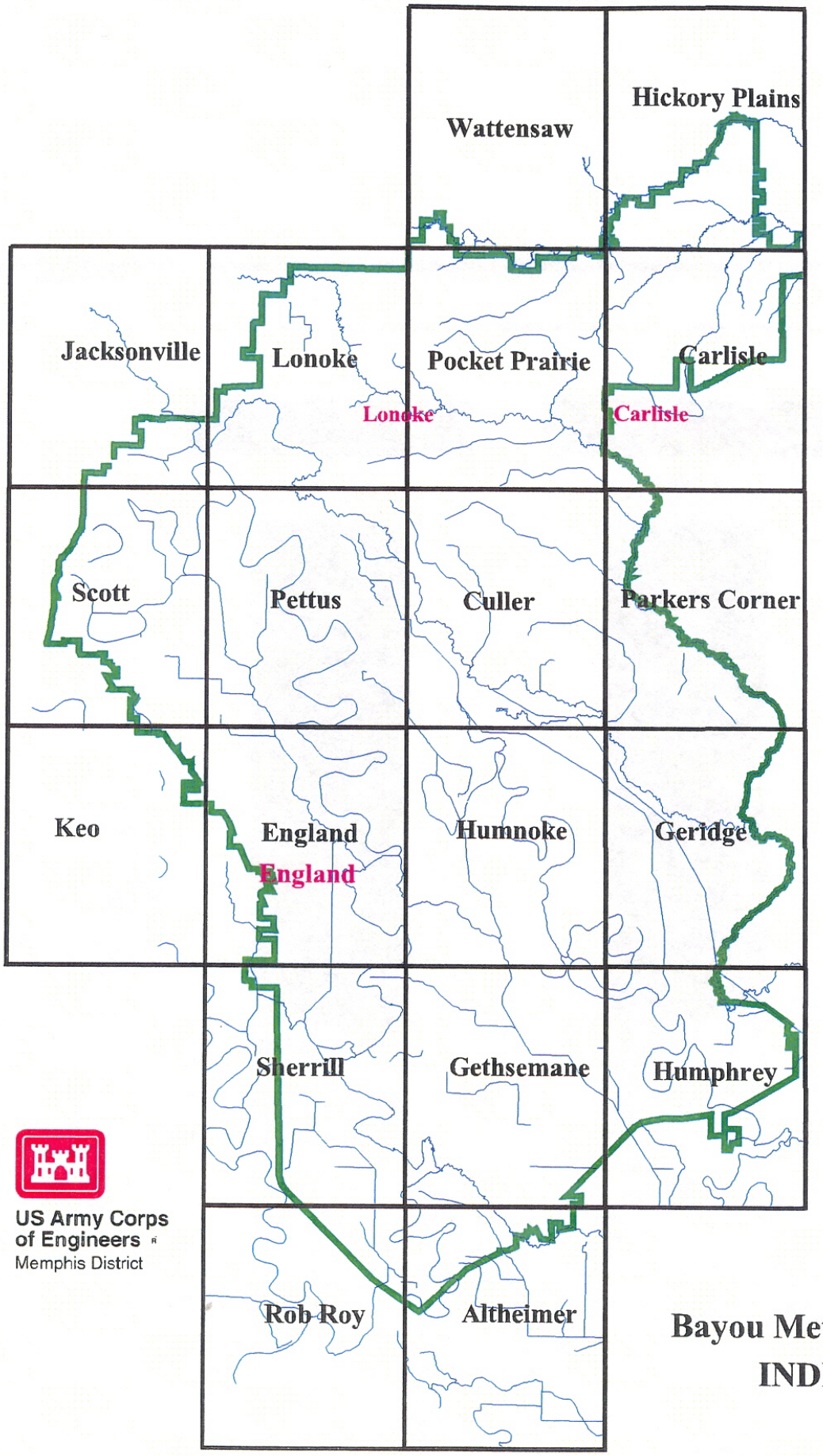
Leslie R Williams

Leslie R. Williams, Lead Appraiser

Exhibits

1. LER Maps
2. Baseline Cost Estimate
3. Sponsors Assessment


Bayou Meto Basin, Arkansas
N
Bayou Meto Regional Irrigation Water Distribution District
Bayou Meto Improvement Project Area
Memphis District Boundary
Sikeston
Poplar Bluff
Clay
Randolph
MO
Pemiscot
Dyersburg
Greene
Paragould
Lawrence
Blytheville
Jonesboro
Craighead
Independence
Mississippi
Jackson
Poinsett
Cleburne
Tipton
AR
TN
White
Cross
Searcy
Crittenden
West Memphis
Shelby
Faulkner
Woodruff
Memphis
Forrest City
St. Francis
De Soto
Pulaski
Prairie
Lonoke
Monroe
Lee
Tunica
Tate
MS
Stuttgart
Phillips
Jefferson
Arkansas
Pine Bluff
Coahoma
Lincoln
Cleveland
Bolivar
Desha
10 0 10 20 30 40 50 Miles
VICINITY MAP



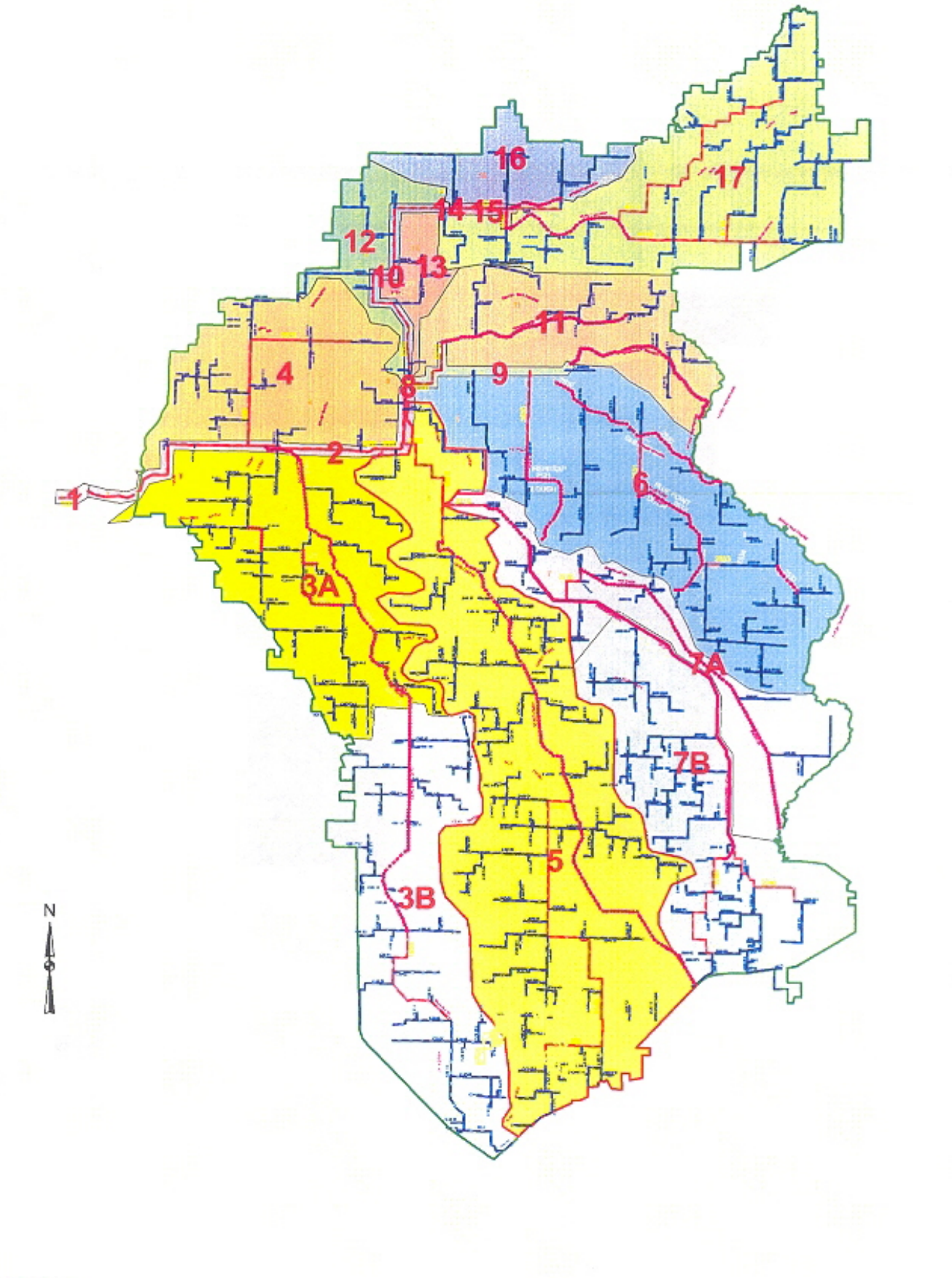

N

US Army Corps of Engineers
Memphis District

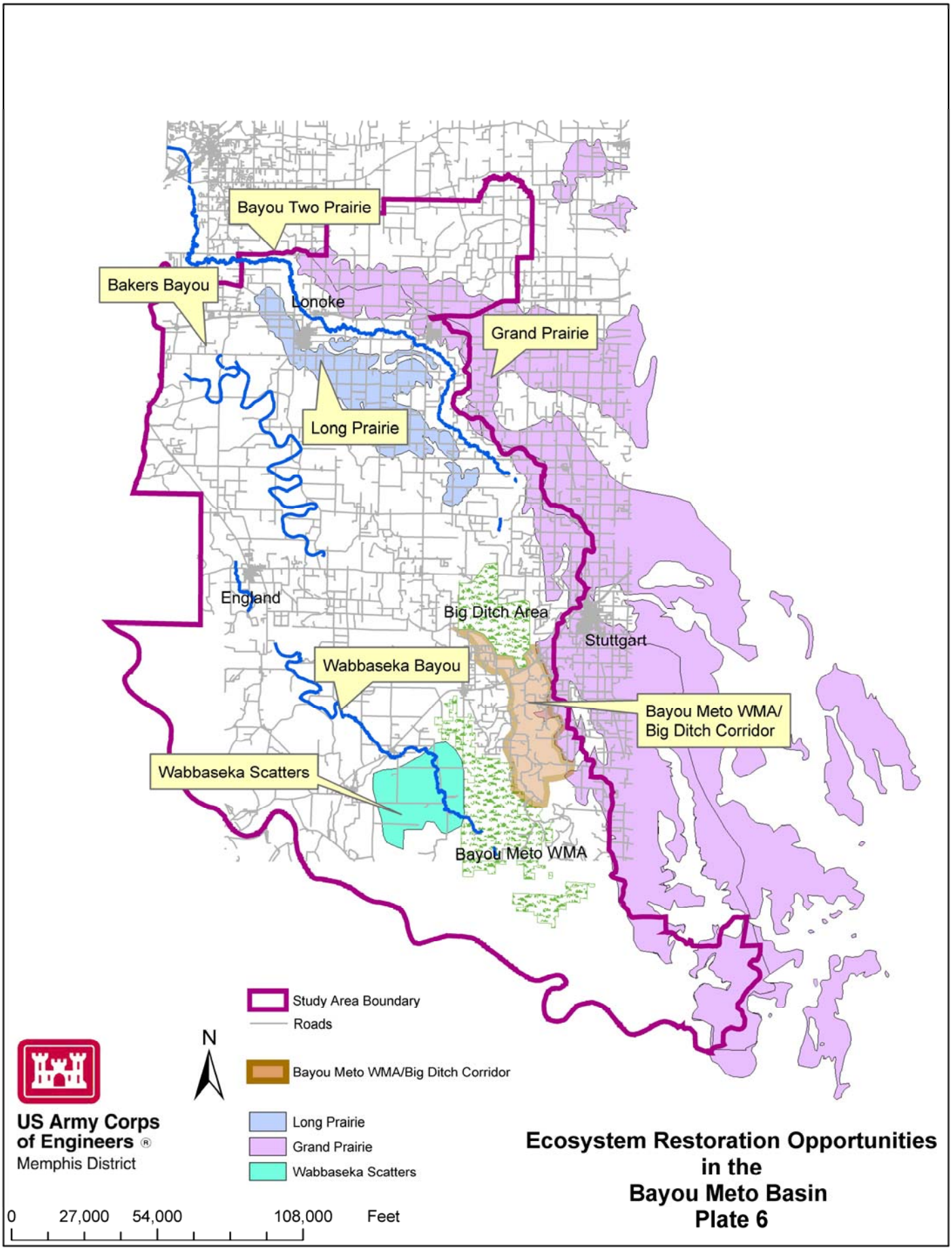
# Bayou Meto Basin, Arkansas
## INDEX MAP

Bayou Meto Improvement Project Area

5 0 5 Miles




# Construction Reaches


Bayou Two Prairie
Bakers Bayou
Lonoke
Grand Prairie
Long Prairie
England
Big Ditch Area
Stuttgart
Wabbaseka Bayou
Bayou Meto WMA/
Big Ditch Corridor
Wabbaseka Scatters
Bayou Meto WMA
Study Area Boundary
Roads
N
Bayou Meto WMA/Big Ditch Corridor
US Army Corps
of Engineers ®
Memphis District
Long Prairie
Grand Prairie
Wabbaseka Scatters
0 27,000 54,000 108,000 Feet
Ecosystem Restoration Opportunities
in the
Bayou Meto Basin
Plate 6

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Item 1 | | | | | | |
| | Estimated Number of Owners: | 3 | | | | ROUNDED | $ 245,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 195,000 | $ 49,000 | $ 245,000 |
| | | | | | | | |
| 01 | LANDS AND DAMAGES | AMOUNT | CONTINGENCY | PROJECT COST | $ 195,000 | $ 49,000 | $ 245,000 |
| | | | | | | | |
| 01A | PROJECT PLANNING | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A30 | PRELIMINARY RE ACQUISITION MAPS | $ 150 | $ 40 | $ 190 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | ACQUISITIONS | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 6,000 | $ 1,500 | $ 7,500 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 150 | $ 40 | $ 190 | | | |
| | | | | | | | |
| 01C | CONDEMNATIONS | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | INLEASING | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | APPRAISAL | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 3,000 | $ 750 | $ 3,750 | | | |
| 01E40 | BY LS | $ - | $ - | $ - | | | |
| 01E40 | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 750 | $ 190 | $ 940 | | | |
| | | | | | | | |
| 01F | PL 91-646 ASSISTANCE | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 150 | $ 40 | $ 190 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 75 | $ 20 | $ 95 | | | |
| | | | | | | | |
| 01G | TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY | | | | | | |
| 01G10 | BY GOVERNMENT | $ 600 | $ 150 | $ 750 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 300 | $ 80 | $ 380 | | | |
| | | | | | | | |
| 01H | AUDITS | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 150 | $ 40 | $ 190 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | ENCROACHMENTS AND TRESPASS | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | DISPOSALS | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | REAL PROPERTY ACCOUNTABILITY | $ - | $ - | $ - | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01M00 | PROJECT RELATED ADMINISTRATION | $ 150 | $ 40 | $ 190 | | | |
| | | | | | | | |
| 01N00 | FACILITY/UTILITY RELOCATIONS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01P00 | WITHDRAWALS (PUBLIC DOMAIN LAND) | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01Q00 | RESERVED FOR FUTURE HQUSACE USE | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01R | REAL ESTATE PAYMENTS | | | | | | |
| 01R1 | LAND PAYMENTS | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 183,000 | $ 46,000 | $ 229,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 300 | $ 80 | $ 380 | | | |
| 01R2 | PL 91-646 ASSISTANCE PAYMENTS | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | DAMAGE PAYMENTS | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | OTHER | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01S | DISPOSAL RECEIPTS | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01T | LERRD CREDITING | $ 75 | $ 20 | $ 95 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 300 | $ 80 | $ 380 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 150 | $ 40 | $ 190 | | | |
| | | | | | | | |
| | **Allocation:** | **$ 196,000** | **$ 50,000** | **$ 245,000** | | | |
| | | | | | | | |
| | **Total Federal:** | $ 3,000 | $ 1,000 | $ 3,000 | | | |
| | | | | | | | |
| | **Total Non-Federal:** | $ 193,000 | $ 49,000 | $ 242,000 | | | |
| | | | | | | | |
| | **Total Non-Federal minus Lands:** | $ 10,000 | $ 3,000 | $ 13,000 | | | |

| PROJECT NAME | Bayou Meto<br>Item 2 | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Estimated Number of Owners: | 30 | | | | ROUNDED | $ 1,079,000 |
| | **TOTAL PROJECT COSTS** | | | | $ 863,000 | $ 216,000 | $ 1,079,000 |
| 01 | **LANDS AND DAMAGES** | AMOUNT | CONTINGENCY | PROJECT COST | $ 863,000 | $ 216,000 | $ 1,079,000 |
| 01A | **PROJECT PLANNING** | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 1,500 | $ 380 | $ 1,880 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| 01B | **ACQUISITIONS** | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 60,000 | $ 15,000 | $ 75,000 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 1,500 | $ 380 | $ 1,880 | | | |
| 01C | **CONDEMNATIONS** | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01D | **INLEASING** | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01E | **APPRAISAL** | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 30,000 | $ 7,500 | $ 37,500 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 7,500 | $ 1,880 | $ 9,380 | | | |
| 01F | **PL 91-646 ASSISTANCE** | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 1,500 | $ 380 | $ 1,880 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 750 | $ 190 | $ 940 | | | |
| 01G | **TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY** | | | | | | |
| 01G10 | BY GOVERNMENT | $ 6,000 | $ 1,500 | $ 7,500 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 3,000 | $ 750 | $ 3,750 | | | |
| 01H | **AUDITS** | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 1,500 | $ 380 | $ 1,880 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01J | **ENCROACHMENTS AND TRESPASS** | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01K | **DISPOSALS** | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01L00 | **REAL PROPERTY ACCOUNTABILITY** | $ - | $ - | $ - | | | |
| 01M00 | **PROJECT RELATED ADMINISTRATION** | $ 1,500 | $ 380 | $ 1,880 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | FACILITY/UTILITY RELOCATIONS | $ - | $ - | $ - | | | |
| 01P00 | WITHDRAWALS (PUBLIC DOMAIN LAND) | $ - | $ - | $ - | | | |
| 01Q00 | RESERVED FOR FUTURE HQUSACE USE | $ - | $ - | $ - | | | |
| 01R | REAL ESTATE PAYMENTS | | | | | | |
| 01R1 | LAND PAYMENTS | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 740,000 | $ 185,000 | $ 925,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 3,000 | $ 750 | $ 3,750 | | | |
| 01R2 | PL 91-646 ASSISTANCE PAYMENTS | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | DAMAGE PAYMENTS | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | OTHER | $ - | $ - | $ - | | | |
| 01S | DISPOSAL RECEIPTS | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | LERRD CREDITING | $ 750 | $ 190 | $ 940 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 3,000 | $ 750 | $ 3,750 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 1,500 | $ 380 | $ 1,880 | | | |
| | **Allocation:** | **$ 863,000** | **$ 216,000** | **$ 1,079,000** | | | |
| | **Total Federal:** | $ 21,000 | $ 6,000 | $ 27,000 | | | |
| | **Total Non-Federal:** | $ 842,000 | $ 210,000 | $ 1,052,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 102,000 | $ 25,000 | $ 127,000 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Item 3A | | | | | | |
| | Estimated Number of Owners: | 112 | | | | ROUNDED | $ 804,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 643,000 | $ 161,000 | $ 804,000 |
| | | | | | | | |
| 01 | **LANDS AND DAMAGES** | AMOUNT | CONTINGENCY | PROJECT COST | $ 643,000 | $ 161,000 | $ 804,000 |
| | | | | | | | |
| 01A | **PROJECT PLANNING** | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 5,600 | $ 1,400 | $ 7,000 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | **ACQUISITIONS** | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 224,000 | $ 56,000 | $ 280,000 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 5,600 | $ 1,400 | $ 7,000 | | | |
| | | | | | | | |
| 01C | **CONDEMNATIONS** | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | **INLEASING** | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | **APPRAISAL** | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 112,000 | $ 28,000 | $ 140,000 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 28,000 | $ 7,000 | $ 35,000 | | | |
| | | | | | | | |
| 01F | **PL 91-646 ASSISTANCE** | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 5,600 | $ 1,400 | $ 7,000 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 2,800 | $ 700 | $ 3,500 | | | |
| | | | | | | | |
| 01G | **TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY** | | | | | | |
| 01G10 | BY GOVERNMENT | $ 22,400 | $ 5,600 | $ 28,000 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 11,200 | $ 2,800 | $ 14,000 | | | |
| | | | | | | | |
| 01H | **AUDITS** | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 5,600 | $ 1,400 | $ 7,000 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | **ENCROACHMENTS AND TRESPASS** | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | **DISPOSALS** | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | **REAL PROPERTY ACCOUNTABILITY** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | **PROJECT RELATED ADMINISTRATION** | $ 5,600 | $ 1,400 | $ 7,000 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 184,000 | $ 46,000 | $ 230,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 11,200 | $ 2,800 | $ 14,000 | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | **LERRD CREDITING** | $ 2,800 | $ 700 | $ 3,500 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 11,200 | $ 2,800 | $ 14,000 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 5,600 | $ 1,400 | $ 7,000 | | | |
| | **Allocation:** | $ 644,000 | $ 161,000 | $ 804,000 | | | |
| | **Total Federal:** | $ 79,000 | $ 20,000 | $ 98,000 | | | |
| | **Total Non-Federal:** | $ 565,000 | $ 141,000 | $ 706,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 381,000 | $ 95,000 | $ 476,000 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Item 3B | | | | | | |
| | Estimated Number of Owners: | 132 | | | | ROUNDED | $ 957,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 765,000 | $ 191,000 | $ 957,000 |
| | | | | | | | |
| 01 | LANDS AND DAMAGES | AMOUNT | CONTINGENCY | PROJECT COST | $ 765,000 | $ 191,000 | $ 957,000 |
| | | | | | | | |
| 01A | PROJECT PLANNING | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 6,600 | $ 1,650 | $ 8,250 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | ACQUISITIONS | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 264,000 | $ 66,000 | $ 330,000 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 6,600 | $ 1,650 | $ 8,250 | | | |
| | | | | | | | |
| 01C | CONDEMNATIONS | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | INLEASING | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | APPRAISAL | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 132,000 | $ 33,000 | $ 165,000 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 33,000 | $ 8,250 | $ 41,250 | | | |
| | | | | | | | |
| 01F | PL 91-646 ASSISTANCE | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 6,600 | $ 1,650 | $ 8,250 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 3,300 | $ 830 | $ 4,130 | | | |
| | | | | | | | |
| 01G | TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY | | | | | | |
| 01G10 | BY GOVERNMENT | $ 26,400 | $ 6,600 | $ 33,000 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 13,200 | $ 3,300 | $ 16,500 | | | |
| | | | | | | | |
| 01H | AUDITS | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 6,600 | $ 1,650 | $ 8,250 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | ENCROACHMENTS AND TRESPASS | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | DISPOSALS | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | REAL PROPERTY ACCOUNTABILITY | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | PROJECT RELATED ADMINISTRATION | $ 6,600 | $ 1,650 | $ 8,250 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | FACILITY/UTILITY RELOCATIONS | $ - | $ - | $ - | | | |
| 01P00 | WITHDRAWALS (PUBLIC DOMAIN LAND) | $ - | $ - | $ - | | | |
| 01Q00 | RESERVED FOR FUTURE HQUSACE USE | $ - | $ - | $ - | | | |
| 01R | REAL ESTATE PAYMENTS | | | | | | |
| 01R1 | LAND PAYMENTS | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 224,000 | $ 56,000 | $ 280,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 13,200 | $ 3,300 | $ 16,500 | | | |
| 01R2 | PL 91-646 ASSISTANCE PAYMENTS | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | DAMAGE PAYMENTS | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | OTHER | $ - | $ - | $ - | | | |
| 01S | DISPOSAL RECEIPTS | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | LERRD CREDITING | $ 3,300 | $ 830 | $ 4,130 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 13,200 | $ 3,300 | $ 16,500 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 6,600 | $ 1,650 | $ 8,250 | | | |
| | **Allocation:** | **$ 766,000** | **$ 192,000** | **$ 957,000** | | | |
| | **Total Federal:** | $ 93,000 | $ 24,000 | $ 116,000 | | | |
| | **Total Non-Federal:** | $ 673,000 | $ 168,000 | $ 841,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 449,000 | $ 112,000 | $ 561,000 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Item 4 | | | | | | |
| | Estimated Number of Owners: | 68 | | | | ROUNDED | $ 717,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 573,000 | $ 144,000 | $ 717,000 |
| | | | | | | | |
| 01 | LANDS AND DAMAGES | AMOUNT | CONTINGENCY | PROJECT COST | $ 573,000 | $ 144,000 | $ 717,000 |
| | | | | | | | |
| 01A | PROJECT PLANNING | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 3,400 | $ 850 | $ 4,250 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | ACQUISITIONS | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 136,000 | $ 34,000 | $ 170,000 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 3,400 | $ 850 | $ 4,250 | | | |
| | | | | | | | |
| 01C | CONDEMNATIONS | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | INLEASING | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | APPRAISAL | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 68,000 | $ 17,000 | $ 85,000 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 17,000 | $ 4,250 | $ 21,250 | | | |
| | | | | | | | |
| 01F | PL 91-646 ASSISTANCE | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 3,400 | $ 850 | $ 4,250 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 1,700 | $ 430 | $ 2,130 | | | |
| | | | | | | | |
| 01G | TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY | | | | | | |
| 01G10 | BY GOVERNMENT | $ 13,600 | $ 3,400 | $ 17,000 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 6,800 | $ 1,700 | $ 8,500 | | | |
| | | | | | | | |
| 01H | AUDITS | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 3,400 | $ 850 | $ 4,250 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | ENCROACHMENTS AND TRESPASS | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | DISPOSALS | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | REAL PROPERTY ACCOUNTABILITY | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | PROJECT RELATED ADMINISTRATION | $ 3,400 | $ 850 | $ 4,250 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 294,000 | $ 74,000 | $ 368,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 6,800 | $ 1,700 | $ 8,500 | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | OTHER | $ - | $ - | $ - | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | **LERRD CREDITING** | $ 1,700 | $ 430 | $ 2,130 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 6,800 | $ 1,700 | $ 8,500 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 3,400 | $ 850 | $ 4,250 | | | |
| | **Allocation:** | **$ 573,000** | **$ 144,000** | **$ 717,000** | | | |
| | **Total Federal:** | $ 48,000 | $ 12,000 | $ 60,000 | | | |
| | **Total Non-Federal:** | $ 525,000 | $ 132,000 | $ 657,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 231,000 | $ 58,000 | $ 289,000 | | | |

| PROJECT NAME | Bayou Meto<br>Item 5 | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Estimated Number of Owners: | 415 | | | | ROUNDED | $ 4,044,000 |
| | | | | | | | |
| | TOTAL PROJECT COSTS | | | | $ 3,235,000 | $ 809,000 | $ 4,044,000 |
| | | | | | | | |
| 01 | LANDS AND DAMAGES | AMOUNT | CONTINGENCY | PROJECT COST | $ 3,235,000 | $ 809,000 | $ 4,044,000 |
| | | | | | | | |
| 01A | PROJECT PLANNING | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 20,750 | $ 5,190 | $ 25,940 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | ACQUISITIONS | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 830,000 | $ 207,500 | $ 1,037,500 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 20,750 | $ 5,190 | $ 25,940 | | | |
| | | | | | | | |
| 01C | CONDEMNATIONS | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | INLEASING | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | APPRAISAL | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 415,000 | $ 103,750 | $ 518,750 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 103,750 | $ 25,940 | $ 129,690 | | | |
| | | | | | | | |
| 01F | PL 91-646 ASSISTANCE | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 20,750 | $ 5,190 | $ 25,940 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 10,375 | $ 2,590 | $ 12,965 | | | |
| | | | | | | | |
| 01G | TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY | | | | | | |
| 01G10 | BY GOVERNMENT | $ 83,000 | $ 20,750 | $ 103,750 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 41,500 | $ 10,380 | $ 51,880 | | | |
| | | | | | | | |
| 01H | AUDITS | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 20,750 | $ 5,190 | $ 25,940 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | ENCROACHMENTS AND TRESPASS | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | DISPOSALS | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | REAL PROPERTY ACCOUNTABILITY | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | PROJECT RELATED ADMINISTRATION | $ 20,750 | $ 5,190 | $ 25,940 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 1,533,000 | $ 384,000 | $ 1,917,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 41,500 | $ 10,380 | $ 51,880 | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | **LERRD CREDITING** | $ 10,375 | $ 2,590 | $ 12,965 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 41,500 | $ 10,380 | $ 51,880 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 20,750 | $ 5,190 | $ 25,940 | | | |
| | **Allocation:** | **$ 3,235,000** | **$ 810,000** | **$ 4,044,000** | | | |
| | **Total Federal:** | $ 291,000 | $ 73,000 | $ 364,000 | | | |
| | **Total Non-Federal:** | $ 2,944,000 | $ 737,000 | $ 3,680,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 1,411,000 | $ 353,000 | $ 1,763,000 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Item 6 | | | | | | |
| | Estimated Number of Owners: | 176 | | | | ROUNDED | $ 1,491,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 1,193,000 | $ 298,000 | $ 1,491,000 |
| | | | | | | | |
| 01 | LANDS AND DAMAGES | AMOUNT | CONTINGENCY | PROJECT COST | $ 1,193,000 | $ 298,000 | $ 1,491,000 |
| | | | | | | | |
| 01A | PROJECT PLANNING | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 8,800 | $ 2,200 | $ 11,000 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | ACQUISITIONS | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 352,000 | $ 88,000 | $ 440,000 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 8,800 | $ 2,200 | $ 11,000 | | | |
| | | | | | | | |
| 01C | CONDEMNATIONS | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | INLEASING | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | APPRAISAL | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 176,000 | $ 44,000 | $ 220,000 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 44,000 | $ 11,000 | $ 55,000 | | | |
| | | | | | | | |
| 01F | PL 91-646 ASSISTANCE | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 8,800 | $ 2,200 | $ 11,000 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 4,400 | $ 1,100 | $ 5,500 | | | |
| | | | | | | | |
| 01G | TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY | | | | | | |
| 01G10 | BY GOVERNMENT | $ 35,200 | $ 8,800 | $ 44,000 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 17,600 | $ 4,400 | $ 22,000 | | | |
| | | | | | | | |
| 01H | AUDITS | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 8,800 | $ 2,200 | $ 11,000 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | ENCROACHMENTS AND TRESPASS | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | DISPOSALS | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | REAL PROPERTY ACCOUNTABILITY | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | PROJECT RELATED ADMINISTRATION | $ 8,800 | $ 2,200 | $ 11,000 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 471,000 | $ 118,000 | $ 589,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 17,600 | $ 4,400 | $ 22,000 | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | **LERRD CREDITING** | $ 4,400 | $ 1,100 | $ 5,500 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 17,600 | $ 4,400 | $ 22,000 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 8,800 | $ 2,200 | $ 11,000 | | | |
| | **Allocation:** | **$ 1,193,000** | **$ 299,000** | **$ 1,491,000** | | | |
| | **Total Federal:** | $ 124,000 | $ 31,000 | $ 154,000 | | | |
| | **Total Non-Federal:** | $ 1,069,000 | $ 268,000 | $ 1,337,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 598,000 | $ 150,000 | $ 748,000 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Item 7A | | | | | | |
| | Estimated Number of Owners: | 97 | | | | ROUNDED | $ 1,790,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 1,431,000 | $ 358,000 | $ 1,790,000 |
| | | | | | | | |
| 01 | LANDS AND DAMAGES | AMOUNT | CONTINGENCY | PROJECT COST | $ 1,431,000 | $ 358,000 | $ 1,790,000 |
| | | | | | | | |
| 01A | PROJECT PLANNING | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 4,850 | $ 1,210 | $ 6,060 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | ACQUISITIONS | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 194,000 | $ 48,500 | $ 242,500 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 4,850 | $ 1,210 | $ 6,060 | | | |
| | | | | | | | |
| 01C | CONDEMNATIONS | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | INLEASING | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | APPRAISAL | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 97,000 | $ 24,250 | $ 121,250 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 24,250 | $ 6,060 | $ 30,310 | | | |
| | | | | | | | |
| 01F | PL 91-646 ASSISTANCE | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 4,850 | $ 1,210 | $ 6,060 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 2,425 | $ 610 | $ 3,035 | | | |
| | | | | | | | |
| 01G | TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY | | | | | | |
| 01G10 | BY GOVERNMENT | $ 19,400 | $ 4,850 | $ 24,250 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 9,700 | $ 2,430 | $ 12,130 | | | |
| | | | | | | | |
| 01H | AUDITS | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 4,850 | $ 1,210 | $ 6,060 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | ENCROACHMENTS AND TRESPASS | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | DISPOSALS | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | REAL PROPERTY ACCOUNTABILITY | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | PROJECT RELATED ADMINISTRATION | $ 4,850 | $ 1,210 | $ 6,060 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | FACILITY/UTILITY RELOCATIONS | $ - | $ - | $ - | | | |
| 01P00 | WITHDRAWALS (PUBLIC DOMAIN LAND) | $ - | $ - | $ - | | | |
| 01Q00 | RESERVED FOR FUTURE HQUSACE USE | $ - | $ - | $ - | | | |
| 01R | REAL ESTATE PAYMENTS | | | | | | |
| 01R1 | LAND PAYMENTS | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 1,033,000 | $ 259,000 | $ 1,292,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 9,700 | $ 2,430 | $ 12,130 | | | |
| 01R2 | PL 91-646 ASSISTANCE PAYMENTS | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | DAMAGE PAYMENTS | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | OTHER | $ - | $ - | $ - | | | |
| 01S | DISPOSAL RECEIPTS | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | LERRD CREDITING | $ 2,425 | $ 610 | $ 3,035 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 9,700 | $ 2,430 | $ 12,130 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 4,850 | $ 1,210 | $ 6,060 | | | |
| | **Allocation:** | **$ 1,431,000** | **$ 359,000** | **$ 1,790,000** | | | |
| | **Total Federal:** | $ 68,000 | $ 17,000 | $ 85,000 | | | |
| | **Total Non-Federal:** | $ 1,363,000 | $ 342,000 | $ 1,705,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 330,000 | $ 83,000 | $ 413,000 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Item 78 | | | | | | |
| | Estimated Number of Owners: | 159 | | | | ROUNDED | $ 1,223,000 |
| | | | | | | | |
| | TOTAL PROJECT COSTS | | | | $ 978,000 | $ 245,000 | $ 1,223,000 |
| | | | | | | | |
| 01 | LANDS AND DAMAGES | AMOUNT | CONTINGENCY | PROJECT COST | $ 978,000 | $ 245,000 | $ 1,223,000 |
| | | | | | | | |
| 01A | PROJECT PLANNING | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 7,950 | $ 1,990 | $ 9,940 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | ACQUISITIONS | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 318,000 | $ 79,500 | $ 397,500 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 7,950 | $ 1,990 | $ 9,940 | | | |
| | | | | | | | |
| 01C | CONDEMNATIONS | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | INLEASING | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | APPRAISAL | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 159,000 | $ 39,750 | $ 198,750 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 39,750 | $ 9,940 | $ 49,690 | | | |
| | | | | | | | |
| 01F | PL 91-646 ASSISTANCE | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 7,950 | $ 1,990 | $ 9,940 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 3,975 | $ 990 | $ 4,965 | | | |
| | | | | | | | |
| 01G | TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY | | | | | | |
| 01G10 | BY GOVERNMENT | $ 31,800 | $ 7,950 | $ 39,750 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 15,900 | $ 3,980 | $ 19,880 | | | |
| | | | | | | | |
| 01H | AUDITS | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 7,950 | $ 1,990 | $ 9,940 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | ENCROACHMENTS AND TRESPASS | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | DISPOSALS | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | REAL PROPERTY ACCOUNTABILITY | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | PROJECT RELATED ADMINISTRATION | $ 7,950 | $ 1,990 | $ 9,940 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 326,000 | $ 82,000 | $ 408,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 15,900 | $ 3,980 | $ 19,880 | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01T | **LERRD CREDITING** | $ 3,975 | $ 990 | $ 4,965 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 15,900 | $ 3,980 | $ 19,880 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 7,950 | $ 1,990 | $ 9,940 | | | |
| | | | | | | | |
| | **Allocation:** | **$ 978,000** | **$ 245,000** | **$ 1,223,000** | | | |
| | | | | | | | |
| | **Total Federal:** | $ 112,000 | $ 28,000 | $ 140,000 | | | |
| | | | | | | | |
| | **Total Non-Federal:** | $ 866,000 | $ 217,000 | $ 1,083,000 | | | |
| | | | | | | | |
| | **Total Non-Federal minus Lands:** | $ 540,000 | $ 135,000 | $ 675,000 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Item 8 | | | | | | |
| | Estimated Number of Owners: | 1 | | | | ROUNDED | $ 64,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 50,000 | $ 13,000 | $ 64,000 |
| | | | | | | | |
| 01 | **LANDS AND DAMAGES** | AMOUNT | CONTINGENCY | PROJECT COST | $ 50,000 | $ 13,000 | $ 64,000 |
| | | | | | | | |
| 01A | **PROJECT PLANNING** | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 50 | $ 10 | $ 60 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | **ACQUISITIONS** | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 2,000 | $ 500 | $ 2,500 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 50 | $ 10 | $ 60 | | | |
| | | | | | | | |
| 01C | **CONDEMNATIONS** | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | **INLEASING** | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | **APPRAISAL** | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 1,000 | $ 250 | $ 1,250 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 250 | $ 60 | $ 310 | | | |
| | | | | | | | |
| 01F | **PL 91-646 ASSISTANCE** | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 50 | $ 10 | $ 60 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 25 | $ 10 | $ 35 | | | |
| | | | | | | | |
| 01G | **TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY** | | | | | | |
| 01G10 | BY GOVERNMENT | $ 200 | $ 50 | $ 250 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 100 | $ 30 | $ 130 | | | |
| | | | | | | | |
| 01H | **AUDITS** | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 50 | $ 10 | $ 60 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | **ENCROACHMENTS AND TRESPASS** | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | **DISPOSALS** | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | **REAL PROPERTY ACCOUNTABILITY** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | **PROJECT RELATED ADMINISTRATION** | $ 50 | $ 10 | $ 60 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 46,000 | $ 12,000 | $ 58,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 100 | $ 30 | $ 130 | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | **LERRD CREDITING** | $ 25 | $ 10 | $ 35 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 100 | $ 30 | $ 130 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 50 | $ 10 | $ 60 | | | |
| | **Allocation:** | **$ 51,000** | **$ 14,000** | **$ 64,000** | | | |
| | **Total Federal:** | $ 1,000 | $ 1,000 | $ 1,000 | | | |
| | **Total Non-Federal:** | $ 50,000 | $ 13,000 | $ 63,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 4,000 | $ 1,000 | $ 5,000 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Item 9 | | | | | | |
| | Estimated Number of Owners: | 15 | | | | ROUNDED | $ 387,000 |
| | | | | | | | |
| | TOTAL PROJECT COSTS | | | | $ 310,000 | $ 77,000 | $ 387,000 |
| | | | | | | | |
| 01 | LANDS AND DAMAGES | AMOUNT | CONTINGENCY | PROJECT COST | $ 310,000 | $ 77,000 | $ 387,000 |
| | | | | | | | |
| 01A | PROJECT PLANNING | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 750 | $ 190 | $ 940 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | ACQUISITIONS | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 30,000 | $ 7,500 | $ 37,500 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 750 | $ 190 | $ 940 | | | |
| | | | | | | | |
| 01C | CONDEMNATIONS | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | INLEASING | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | APPRAISAL | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 15,000 | $ 3,750 | $ 18,750 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 3,750 | $ 940 | $ 4,690 | | | |
| | | | | | | | |
| 01F | PL 91-646 ASSISTANCE | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 750 | $ 190 | $ 940 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 375 | $ 90 | $ 465 | | | |
| | | | | | | | |
| 01G | TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY | | | | | | |
| 01G10 | BY GOVERNMENT | $ 3,000 | $ 750 | $ 3,750 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 1,500 | $ 380 | $ 1,880 | | | |
| | | | | | | | |
| 01H | AUDITS | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 750 | $ 190 | $ 940 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | ENCROACHMENTS AND TRESPASS | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | DISPOSALS | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | REAL PROPERTY ACCOUNTABILITY | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | PROJECT RELATED ADMINISTRATION | $ 750 | $ 190 | $ 940 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | LAND PAYMENTS | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 248,000 | $ 62,000 | $ 310,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 1,500 | $ 380 | $ 1,880 | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | OTHER | $ - | $ - | $ - | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | **LERRD CREDITING** | $ 375 | $ 90 | $ 465 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 1,500 | $ 380 | $ 1,880 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T99 | ALL OTHER | $ 750 | $ 190 | $ 940 | | | |
| | **Allocation:** | **$ 310,000** | **$ 78,000** | **$ 387,000** | | | |
| | **Total Federal:** | $ 11,000 | $ 3,000 | $ 14,000 | | | |
| | **Total Non-Federal:** | $ 299,000 | $ 75,000 | $ 373,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 51,000 | $ 13,000 | $ 63,000 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Item 10 | | | | | | |
| | Estimated Number of Owners: | 20 | | | | ROUNDED | $ 845,000 |
| | | | | | | | |
| | TOTAL PROJECT COSTS | | | | $ 515,000 | $ 130,000 | $ 845,000 |
| | | | | | | | |
| 01 | LANDS AND DAMAGES | AMOUNT | CONTINGENCY | PROJECT COST | $ 515,000 | $ 130,000 | $ 845,000 |
| | | | | | | | |
| 01A | PROJECT PLANNING | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 1,000 | $ 250 | $ 1,250 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | ACQUISITIONS | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 40,000 | $ 10,000 | $ 50,000 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 1,000 | $ 250 | $ 1,250 | | | |
| | | | | | | | |
| 01C | CONDEMNATIONS | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | INLEASING | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | APPRAISAL | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 20,000 | $ 5,000 | $ 25,000 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 5,000 | $ 1,250 | $ 6,250 | | | |
| | | | | | | | |
| 01F | PL 91-646 ASSISTANCE | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 1,000 | $ 250 | $ 1,250 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 500 | $ 130 | $ 630 | | | |
| | | | | | | | |
| 01G | TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY | | | | | | |
| 01G10 | BY GOVERNMENT | $ 4,000 | $ 1,000 | $ 5,000 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 2,000 | $ 500 | $ 2,500 | | | |
| | | | | | | | |
| 01H | AUDITS | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 1,000 | $ 250 | $ 1,250 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | ENCROACHMENTS AND TRESPASS | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | DISPOSALS | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | REAL PROPERTY ACCOUNTABILITY | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | PROJECT RELATED ADMINISTRATION | $ 1,000 | $ 250 | $ 1,250 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 433,000 | $ 109,000 | $ 542,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 2,000 | $ 500 | $ 2,500 | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | | | $ 200,000 | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | **LERRD CREDITING** | $ 500 | $ 130 | $ 630 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 2,000 | $ 500 | $ 2,500 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 1,000 | $ 250 | $ 1,250 | | | |
| | **Allocation:** | **$ 515,000** | **$ 130,000** | **$ 845,000** | | | |
| | **Total Federal:** | $ 14,000 | $ 4,000 | $ 18,000 | | | |
| | **Total Non-Federal:** | $ 501,000 | $ 126,000 | $ 827,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 68,000 | $ 17,000 | $ 285,000 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Item 11 | | | | | | |
| | Estimated Number of Owners: | 79 | | | | ROUNDED | $ 678,000 |
| | **TOTAL PROJECT COSTS** | | | | $ 542,000 | $ 136,000 | $ 678,000 |
| 01 | LANDS AND DAMAGES | AMOUNT | CONTINGENCY | PROJECT COST | $ 542,000 | $ 136,000 | $ 678,000 |
| 01A | PROJECT PLANNING | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 3,950 | $ 990 | $ 4,940 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| 01B | ACQUISITIONS | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 158,000 | $ 39,500 | $ 197,500 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 3,950 | $ 990 | $ 4,940 | | | |
| 01C | CONDEMNATIONS | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01D | INLEASING | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01E | APPRAISAL | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 79,000 | $ 19,750 | $ 98,750 | | | |
| [redacted] | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 19,750 | $ 4,940 | $ 24,690 | | | |
| 01F | PL 91-646 ASSISTANCE | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 3,950 | $ 990 | $ 4,940 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 1,975 | $ 490 | $ 2,465 | | | |
| 01G | TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY | | | | | | |
| 01G10 | BY GOVERNMENT | $ 15,800 | $ 3,950 | $ 19,750 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 7,900 | $ 1,980 | $ 9,880 | | | |
| 01H | AUDITS | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 3,950 | $ 990 | $ 4,940 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01J | ENCROACHMENTS AND TRESPASS | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01K | DISPOSALS | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01L00 | REAL PROPERTY ACCOUNTABILITY | $ - | $ - | $ - | | | |
| 01M00 | PROJECT RELATED ADMINISTRATION | $ 3,950 | $ 990 | $ 4,940 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 218,000 | $ 55,000 | $ 273,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 7,900 | $ 1,980 | $ 9,880 | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | **LERRD CREDITING** | $ 1,975 | $ 490 | $ 2,465 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 7,900 | $ 1,980 | $ 9,880 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 3,950 | $ 990 | $ 4,940 | | | |
| | **Allocation:** | **$ 542,000** | **$ 136,000** | **$ 678,000** | | | |
| | **Total Federal:** | $ 56,000 | $ 14,000 | $ 70,000 | | | |
| | **Total Non-Federal:** | $ 486,000 | $ 122,000 | $ 608,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 268,000 | $ 67,000 | $ 335,000 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Item 12 | | | | | | |
| | Estimated Number of Owners: | 20 | | | | ROUNDED | $ 116,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 92,000 | $ 24,000 | $ 116,000 |
| | | | | | | | |
| 01 | LANDS AND DAMAGES | AMOUNT | CONTINGENCY | PROJECT COST | $ 92,000 | $ 24,000 | $ 116,000 |
| | | | | | | | |
| 01A | PROJECT PLANNING | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 1,000 | $ 250 | $ 1,250 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | ACQUISITIONS | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 40,000 | $ 10,000 | $ 50,000 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 1,000 | $ 250 | $ 1,250 | | | |
| | | | | | | | |
| 01C | CONDEMNATIONS | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | INLEASING | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | APPRAISAL | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 20,000 | $ 5,000 | $ 25,000 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 5,000 | $ 1,250 | $ 6,250 | | | |
| | | | | | | | |
| 01F | PL 91-646 ASSISTANCE | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 1,000 | $ 250 | $ 1,250 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 500 | $ 130 | $ 630 | | | |
| | | | | | | | |
| 01G | TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY | | | | | | |
| 01G10 | BY GOVERNMENT | $ 4,000 | $ 1,000 | $ 5,000 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 2,000 | $ 500 | $ 2,500 | | | |
| | | | | | | | |
| 01H | AUDITS | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 1,000 | $ 250 | $ 1,250 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | ENCROACHMENTS AND TRESPASS | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | DISPOSALS | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | REAL PROPERTY ACCOUNTABILITY | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | PROJECT RELATED ADMINISTRATION | $ 1,000 | $ 250 | $ 1,250 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 10,000 | $ 3,000 | $ 13,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 2,000 | $ 500 | $ 2,500 | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | **LERRD CREDITING** | $ 500 | $ 130 | $ 630 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 2,000 | $ 500 | $ 2,500 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 1,000 | $ 250 | $ 1,250 | | | |
| | **Allocation:** | **$ 92,000** | **$ 24,000** | **$ 116,000** | | | |
| | **Total Federal:** | $ 14,000 | $ 4,000 | $ 18,000 | | | |
| | **Total Non-Federal:** | $ 78,000 | $ 20,000 | $ 98,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 68,000 | $ 17,000 | $ 85,000 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Item 13 | | | | | | |
| | Estimated Number of Owners: | 12 | | | | ROUNDED | $ 69,000 |
| | | | | | | | |
| | TOTAL PROJECT COSTS | | | | $ 54,000 | $ 14,000 | $ 69,000 |
| | | | | | | | |
| 01 | LANDS AND DAMAGES | AMOUNT | CONTINGENCY | PROJECT COST | $ 54,000 | $ 14,000 | $ 69,000 |
| 01A | PROJECT PLANNING | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 600 | $ 150 | $ 750 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| 01B | ACQUISITIONS | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 24,000 | $ 6,000 | $ 30,000 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 600 | $ 150 | $ 750 | | | |
| 01C | CONDEMNATIONS | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01D | INLEASING | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01E | APPRAISAL | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 12,000 | $ 3,000 | $ 15,000 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E40 | REVIEW OF LS | $ 3,000 | $ 750 | $ 3,750 | | | |
| 01F | PL 91-646 ASSISTANCE | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 600 | $ 150 | $ 750 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 300 | $ 80 | $ 380 | | | |
| 01G | TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY | | | | | | |
| 01G10 | BY GOVERNMENT | $ 2,400 | $ 600 | $ 3,000 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 1,200 | $ 300 | $ 1,500 | | | |
| 01H | AUDITS | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 600 | $ 150 | $ 750 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01J | ENCROACHMENTS AND TRESPASS | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01K | DISPOSALS | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01L00 | REAL PROPERTY ACCOUNTABILITY | $ - | $ - | $ - | | | |
| 01M00 | PROJECT RELATED ADMINISTRATION | $ 600 | $ 150 | $ 750 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 5,000 | $ 2,000 | $ 7,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 1,200 | $ 300 | $ 1,500 | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | **LERRD CREDITING** | $ 300 | $ 80 | $ 380 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 1,200 | $ 300 | $ 1,500 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 600 | $ 150 | $ 750 | | | |
| | **Allocation:** | $ 55,000 | $ 15,000 | $ 69,000 | | | |
| | **Total Federal:** | $ 9,000 | $ 3,000 | $ 11,000 | | | |
| | **Total Non-Federal:** | $ 46,000 | $ 12,000 | $ 58,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 41,000 | $ 10,000 | $ 51,000 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Item 14 | | | | | | |
| | Estimated Number of Owners: | 1 | | | | ROUNDED | $ 56,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 44,000 | $ 11,000 | $ 56,000 |
| | | | | | | | |
| 01 | **LANDS AND DAMACES** | AMOUNT | CONTINGENCY | PROJECT COST | $ 44,000 | $ 11,000 | $ 56,000 |
| | | | | | | | |
| 01A | **PROJECT PLANNING** | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 50 | $ 10 | $ 60 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | **ACQUISITIONS** | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 2,000 | $ 500 | $ 2,500 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 50 | $ 10 | $ 60 | | | |
| | | | | | | | |
| 01C | **CONDEMNATIONS** | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | **INLEASING** | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | **APPRAISAL** | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 1,000 | $ 250 | $ 1,250 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 250 | $ 60 | $ 310 | | | |
| | | | | | | | |
| 01F | **PL 91-646 ASSISTANCE** | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 50 | $ 10 | $ 60 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 25 | $ 10 | $ 35 | | | |
| | | | | | | | |
| 01G | **TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY** | | | | | | |
| 01G10 | BY GOVERNMENT | $ 200 | $ 50 | $ 250 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 100 | $ 30 | $ 130 | | | |
| | | | | | | | |
| 01H | **AUDITS** | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 50 | $ 10 | $ 60 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | **ENCROACHMENTS AND TRESPASS** | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | **DISPOSALS** | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | **REAL PROPERTY ACCOUNTABILITY** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | **PROJECT RELATED ADMINISTRATION** | $ 50 | $ 10 | $ 60 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 40,000 | $ 10,000 | $ 50,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 100 | $ 30 | $ 130 | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | **LERRD CREDITING** | $ 25 | $ 10 | $ 35 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 100 | $ 30 | $ 130 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 50 | $ 10 | $ 60 | | | |
| | **Allocation:** | $ 45,000 | $ 12,000 | $ 56,000 | | | |
| | **Total Federal:** | $ 1,000 | $ 1,000 | $ 1,000 | | | |
| | **Total Non-Federal:** | $ 44,000 | $ 11,000 | $ 55,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 4,000 | $ 1,000 | $ 5,000 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Item 15 | | | | | | |
| | Estimated Number of Owners: | 4 | | | | ROUNDED | $ 130,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 103,000 | $ 26,000 | $ 130,000 |
| | | | | | | | |
| 01 | **LANDS AND DAMAGES** | AMOUNT | CONTINGENCY | PROJECT COST | $ 103,000 | $ 26,000 | $ 130,000 |
| | | | | | | | |
| 01A | **PROJECT PLANNING** | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 200 | $ 50 | $ 250 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | **ACQUISITIONS** | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 8,000 | $ 2,000 | $ 10,000 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 200 | $ 50 | $ 250 | | | |
| | | | | | | | |
| 01C | **CONDEMNATIONS** | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | **INLEASING** | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | **APPRAISAL** | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 4,000 | $ 1,000 | $ 5,000 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 1,000 | $ 250 | $ 1,250 | | | |
| | | | | | | | |
| 01F | **PL 91-646 ASSISTANCE** | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 200 | $ 50 | $ 250 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 100 | $ 30 | $ 130 | | | |
| | | | | | | | |
| 01G | **TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY** | | | | | | |
| 01G10 | BY GOVERNMENT | $ 800 | $ 200 | $ 1,000 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 400 | $ 100 | $ 500 | | | |
| | | | | | | | |
| 01H | **AUDITS** | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 200 | $ 50 | $ 250 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | **ENCROACHMENTS AND TRESPASS** | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | **DISPOSALS** | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | **REAL PROPERTY ACCOUNTABILITY** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | **PROJECT RELATED ADMINISTRATION** | $ 200 | $ 50 | $ 250 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 87,000 | $ 22,000 | $ 109,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 400 | $ 100 | $ 500 | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | **LERRD CREDITING** | $ 100 | $ 30 | $ 130 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 400 | $ 100 | $ 500 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 200 | $ 50 | $ 250 | | | |
| | **Allocation:** | **$ 104,000** | **$ 27,000** | **$ 130,000** | | | |
| | **Total Federal:** | $ 3,000 | $ 1,000 | $ 4,000 | | | |
| | **Total Non-Federal:** | $ 101,000 | $ 26,000 | $ 126,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 14,000 | $ 4,000 | $ 17,000 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Item 16 | | | | | | |
| | Estimated Number of Owners: | 29 | | | | ROUNDED | $ 166,000 |
| | **TOTAL PROJECT COSTS** | | | | $ 132,000 | $ 34,000 | $ 166,000 |
| 01 | **LANDS AND DAMAGES** | AMOUNT | CONTINGENCY | PROJECT COST | $ 132,000 | $ 34,000 | $ 166,000 |
| 01A | **PROJECT PLANNING** | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 1,450 | $ 360 | $ 1,810 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| 01B | **ACQUISITIONS** | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 58,000 | $ 14,500 | $ 72,500 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 1,450 | $ 360 | $ 1,810 | | | |
| 01C | **CONDEMNATIONS** | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01D | **INLEASING** | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01E | **APPRAISAL** | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 29,000 | $ 7,250 | $ 36,250 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 7,250 | $ 1,810 | $ 9,060 | | | |
| 01F | **PL 91-646 ASSISTANCE** | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 1,450 | $ 360 | $ 1,810 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 725 | $ 180 | $ 905 | | | |
| 01G | **TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY** | | | | | | |
| 01G10 | BY GOVERNMENT | $ 5,800 | $ 1,450 | $ 7,250 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 2,900 | $ 730 | $ 3,630 | | | |
| 01H | **AUDITS** | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 1,450 | $ 360 | $ 1,810 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01J | **ENCROACHMENTS AND TRESPASS** | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01K | **DISPOSALS** | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01L00 | **REAL PROPERTY ACCOUNTABILITY** | $ - | $ - | $ - | | | |
| 01M00 | **PROJECT RELATED ADMINISTRATION** | $ 1,450 | $ 360 | $ 1,810 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 13,000 | $ 4,000 | $ 17,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 2,900 | $ 730 | $ 3,630 | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01T | **LERRD CREDITING** | $ 725 | $ 180 | $ 905 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 2,900 | $ 730 | $ 3,630 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 1,450 | $ 360 | $ 1,810 | | | |
| | | | | | | | |
| | **Allocation:** | $ 132,000 | $ 34,000 | $ 166,000 | | | |
| | | | | | | | |
| | **Total Federal:** | $ 21,000 | $ 6,000 | $ 26,000 | | | |
| | | | | | | | |
| | **Total Non-Federal:** | $ 111,000 | $ 28,000 | $ 140,000 | | | |
| | | | | | | | |
| | **Total Non-Federal minus Lands:** | $ 98,000 | $ 24,000 | $ 123,000 | | | |

| PROJECT NAME | Bayou Meto Item 17 | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Estimated Number of Owners: | 230 | | | | ROUNDED | $ 1,988,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 1,590,000 | $ 398,000 | $ 1,988,000 |
| | | | | | | | |
| 01 | **LANDS AND DAMAGES** | AMOUNT | CONTINGENCY | PROJECT COST | $ 1,590,000 | $ 398,000 | $ 1,988,000 |
| | | | | | | | |
| 01A | **PROJECT PLANNING** | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 11,500 | $ 2,880 | $ 14,380 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | **ACQUISITIONS** | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 460,000 | $ 115,000 | $ 575,000 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 11,500 | $ 2,880 | $ 14,380 | | | |
| | | | | | | | |
| 01C | **CONDEMNATIONS** | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | **INLEASING** | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | **APPRAISAL** | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 230,000 | $ 57,500 | $ 287,500 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 57,500 | $ 14,380 | $ 71,880 | | | |
| | | | | | | | |
| 01F | **PL 91-646 ASSISTANCE** | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 11,500 | $ 2,880 | $ 14,380 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 5,750 | $ 1,440 | $ 7,190 | | | |
| | | | | | | | |
| 01G | **TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY** | | | | | | |
| 01G10 | BY GOVERNMENT | $ 46,000 | $ 11,500 | $ 57,500 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 23,000 | $ 5,750 | $ 28,750 | | | |
| | | | | | | | |
| 01H | **AUDITS** | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 11,500 | $ 2,880 | $ 14,380 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | **ENCROACHMENTS AND TRESPASS** | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | **DISPOSALS** | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | **REAL PROPERTY ACCOUNTABILITY** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | **PROJECT RELATED ADMINISTRATION** | $ 11,500 | $ 2,880 | $ 14,380 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | FACILITY/UTILITY RELOCATIONS | $ - | $ - | $ - | | | |
| 01P00 | WITHDRAWALS (PUBLIC DOMAIN LAND) | $ - | $ - | $ - | | | |
| 01Q00 | RESERVED FOR FUTURE HQUSACE USE | $ - | $ - | $ - | | | |
| 01R | REAL ESTATE PAYMENTS | | | | | | |
| 01R1 | LAND PAYMENTS | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 647,000 | $ 162,000 | $ 809,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 23,000 | $ 5,750 | $ 28,750 | | | |
| 01R2 | PL 91-646 ASSISTANCE PAYMENTS | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | DAMAGE PAYMENTS | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | OTHER | $ - | $ - | $ - | | | |
| 01S | DISPOSAL RECEIPTS | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | LERRD CREDITING | $ 5,750 | $ 1,440 | $ 7,190 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 23,000 | $ 5,750 | $ 28,750 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 11,500 | $ 2,880 | $ 14,380 | | | |
| | **Allocation:** | **$ 1,590,000** | **$ 398,000** | **$ 1,988,000** | | | |
| | **Total Federal:** | $ 161,000 | $ 41,000 | $ 202,000 | | | |
| | **Total Non-Federal:** | $ 1,429,000 | $ 357,000 | $ 1,786,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 782,000 | $ 195,000 | $ 977,000 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Mitigation | | | | | | |
| | Estimated Number of Owners: | 5 | | | | ROUNDED | $ 2,174,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 1,610,000 | $ 564,000 | $ 2,174,000 |
| | | | | | | | |
| 01 | **LANDS AND DAMAGES** | AMOUNT | CONTINGENCY | PROJECT COST | $ 1,610,000 | $ 564,000 | $ 2,174,000 |
| | | | | | | | |
| 01A | **PROJECT PLANNING** | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 250 | $ 90 | $ 340 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | **ACQUISITIONS** | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 10,000 | $ 3,500 | $ 13,500 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 250 | $ 90 | $ 340 | | | |
| | | | | | | | |
| 01C | **CONDEMNATIONS** | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | **INLEASING** | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | **APPRAISAL** | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 5,000 | $ 1,750 | $ 6,750 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 1,250 | $ 440 | $ 1,690 | | | |
| | | | | | | | |
| 01F | **PL 91-646 ASSISTANCE** | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 250 | $ 90 | $ 340 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 125 | $ 40 | $ 165 | | | |
| | | | | | | | |
| 01G | **TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY** | | | | | | |
| 01G10 | BY GOVERNMENT | $ 1,000 | $ 350 | $ 1,350 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 500 | $ 180 | $ 680 | | | |
| | | | | | | | |
| 01H | **AUDITS** | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 250 | $ 90 | $ 340 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | **ENCROACHMENTS AND TRESPASS** | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | **DISPOSALS** | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | **REAL PROPERTY ACCOUNTABILITY** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | **PROJECT RELATED ADMINISTRATION** | $ 250 | $ 90 | $ 340 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 1,589,000 | $ 557,000 | $ 2,146,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 500 | $ 180 | $ 680 | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | **LERRD CREDITING** | $ 125 | $ 40 | $ 165 | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 500 | $ 180 | $ 680 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 250 | $ 90 | $ 340 | | | |
| | **Allocation:** | **$ 1,610,000** | **$ 565,000** | **$ 2,174,000** | | | |
| | **Total Federal:** | $ 4,000 | $ 2,000 | $ 5,000 | | | |
| | **Total Non-Federal:** | $ 1,606,000 | $ 563,000 | $ 2,169,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 17,000 | $ 6,000 | $ 23,000 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Waterfowl Management and Restoration Plan | | | | | | |
| | Estimated Number of Owners: | 167 | | | | ROUNDED | $ 46,613,000 |
| | | | | | | | |
| | TOTAL PROJECT COSTS | | | | $ 34,527,000 | $ 12,085,000 | $ 46,613,000 |
| | | | | | | | |
| 01 | LANDS AND DAMAGES | AMOUNT | CONTINGENCY | PROJECT COST | $ 34,527,000 | $ 12,085,000 | $ 46,613,000 |
| 01A | PROJECT PLANNING | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ 8,350 | $ 2,920 | $ 11,270 | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| 01B | ACQUISITIONS | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 334,000 | $ 116,900 | $ 450,900 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 8,350 | $ 2,920 | $ 11,270 | | | |
| 01C | CONDEMNATIONS | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01D | INLEASING | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01E | APPRAISAL | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 167,000 | $ 58,450 | $ 225,450 | | | |
| | BY LS | $ - | $ - | $ - | | | |
| | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 41,750 | $ 14,610 | $ 56,360 | | | |
| 01F | PL 91-646 ASSISTANCE | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 8,350 | $ 2,920 | $ 11,270 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 4,175 | $ 1,460 | $ 5,635 | | | |
| 01G | TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY | | | | | | |
| 01G10 | BY GOVERNMENT | $ 33,400 | $ 11,690 | $ 45,090 | | | |
| 01G20 | BY LS | $ - | $ - | $ - | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ 16,700 | $ 5,850 | $ 22,550 | | | |
| 01H | AUDITS | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ 8,350 | $ 2,920 | $ 11,270 | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01J | ENCROACHMENTS AND TRESPASS | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01K | DISPOSALS | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01L00 | REAL PROPERTY ACCOUNTABILITY | $ - | $ - | $ - | | | |
| 01M00 | PROJECT RELATED ADMINISTRATION | $ 8,350 | $ 2,920 | $ 11,270 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01N00 | FACILITY/UTILITY RELOCATIONS | $ - | $ - | $ - | | | |
| 01P00 | WITHDRAWALS (PUBLIC DOMAIN LAND) | $ - | $ - | $ - | | | |
| 01Q00 | RESERVED FOR FUTURE HQUSACE USE | $ - | $ - | $ - | | | |
| 01R | REAL ESTATE PAYMENTS | | | | | | |
| 01R1 | LAND PAYMENTS | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 33,100,000 | $ 11,585,000 | $ 44,685,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ 16,700 | $ 5,850 | $ 22,550 | | | |
| 01R2 | PL 91-646 ASSISTANCE PAYMENTS | | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ - | $ - | $ - | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | DAMAGE PAYMENTS | | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | OTHER | $ - | $ - | $ - | | | |
| 01S | DISPOSAL RECEIPTS | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| 01T | LERRD CREDITING | $ 4,175 | $ 1,460 | $ 5,635 | | | |
| 01T10 | LAND PAYMENTS | $ 676,800 | $ 236,880 | $ 913,680 | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ 82,665 | $ 28,930 | $ 111,595 | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ 8,350 | $ 2,920 | $ 11,270 | | | |
| | **Allocation:** | **$ 34,528,000** | **$ 12,085,000** | **$ 46,613,000** | | | |
| | **Total Federal:** | $ 117,000 | $ 41,000 | $ 158,000 | | | |
| | **Total Non-Federal:** | $ 34,411,000 | $ 12,044,000 | $ 46,455,000 | | | |
| | **Total Non-Federal minus Lands:** | $ 635,000 | $ 223,000 | $ 857,000 | | | |

ASSESSMENT OF NON-FEDERAL SPONSOR'S REAL ESTATE ACQUISITION CAPABILITY

PROJECT NAME: Bayou Meto Project, Lonoke, Jefferson, Prairie, and Arkansas Counties

SPONSOR: Arkansas Natural Resources Commission, in partnership with Bayou Meto Water Management District which is the legal entity for acquiring LERRDS and performing all necessary relocations for the project.

I. Legal Authority

a. Does the sponsor have legal authority to acquire and hold title to real property for project purposes?.....(Yes/No)
b. Does the sponsor have the power of eminent domain for this project?.....(Yes/No)
c Does the sponsor have "quick take" authority for this project?.....(Yes/No)
d. Are any of the lands/interests in the land required for the project located outside of the sponsor's political boundary?** .....(Yes/No)
e. Are any of the lands/interest in land required for the project owned by an entity whose property the sponsor can not condemn?.....(Yes/No)

II. Human Resource Requirements:

a. Will the sponsor's in-house staff require training to become familiar with the real estate requirements of Federal projects including P. L. 91-646, as amended?.....(Yes/No)*
b If the answer to II.a. is "yes", has a reasonable plan been developed to provide such training?.....(Yes/No)
c. Does the sponsor's in-house staff have sufficient real estate acquisition experience to meet its responsibilities for the project?.....(Yes/No)*
d. Is the sponsor's projected in-house staffing level sufficient considering its other work load, if any, and the project schedule?.....(Yes/No)*
e. Can the sponsor obtain contractor support, if required, in a timely fashion?.....(Yes/No)
f. Will the sponsor likely request USACE assistance in acquiring real estate?.....(Yes/No)
(If "yes", provide description).

III. Other Project Variables:

a. Will the sponsor's staff be located within reasonable proximity to the project site?.....(Yes/No)
b. Has the sponsor approved the project/real estate schedule/milestones?.....(Yes/No)

IV: Overall Assessment:

a. Has the sponsor performed satisfactorily on other USACE projects?.....(Yes/No/Not applicable)
b. With regard to this project, the sponsor is anticipated to be: highly capable/ fully capable/moderately capable/marginally capable/insufficiently capable. (If sponsor is believed to be "insufficiently capable", provide explanation).

V. Coordination:

a. Has this assessment been coordinated with the sponsor?.....(Yes/No)
b. Does the sponsor concur with this assessment?.....(Yes/No)
(If "No", provide explanation).

Prepared by:

Eric Greever
Appraiser

Reviewed and Approved by:

Vernon Lawless
Acting Chief, Real Estate Division

*Sponsor will contract with Real Estate Consultant firm to perform all real estate requirements.
**Sponsor stated that they have the authority to acquire lands outside of their political boundary if it is needed for the project.

BAYOU METO BASIN, ARKANSAS
BRIDGES AND UTILITIES RELOCATIONS
LONOKE COUNTY, ARKANSAS
PRELIMINARY ATTORNEY'S INVESTIGATION AND REPORT

I, Mary Ann Vandergriff, Attorney-Advisor with the Office of Counsel, Memphis District, U.S. Army Corps of Engineers, Memphis, Tennessee, duly licensed and qualified to practice law in the State of Tennessee, do hereby submit in accordance with ER 405-1-12, Chapter 12, "Real Estate Roles and Responsibilities for Civil Works: Cost Shared and Full Federal Projects", dated 20 November 1985, a preliminary written investigation and report incident to bridges and utilities, facilities located in Lonoke County, Arkansas, within 2 areas named Rickey Branch and Skinner Branch, described more fully below, which may require relocation, rearrangement and/or alteration as a result of the proposed projects that are the subject of this study. This report is based on determinations made many years ago following field inspections, and should not be considered to be a complete compilation.

**Project Authority - PROJECT REAUTHORIZATION** - In 1996, Congress reauthorized the original Grand Prairie Region and Bayou Meto Basin flood control project with a broadened scope of work. Section 363(a), Project Reauthorizations, of the Water Resources Development Act (WDRA) of 1996, Public Law 104-303, is quoted as follows:

"Grand Prairie Region and Bayou Meto Basin, Arkansas. -- The project for flood control, Grand Prairie Region and Bayou Meto Basin, Arkansas, authorized by Section 204 of the Flood Control Act of 1950 (64 Stat. 174) and deauthorized pursuant to section 1001(b) of the Water Resources Development Act of 1986 (33 U.S.C. 579a(b)), is authorized to be carried out by the Secretary; except that the scope of the project includes ground water protection and conservation, agricultural water supply, and waterfowl management if the Secretary determines that the change in the scope of the project is technically sound, environmentally acceptable, and economic, as applicable."

**Facilities** - Within the proposed project area of the Bayou Meto Basin in east central Arkansas, throughout portions of Arkansas, Lonoke, Jefferson, and Prairie counties, Arkansas, and there exist numerous facilities which provide public utilities and services to residents and businesses in the area. This report is confined to consideration of certain facilities in Lonoke County, within areas identified as Rickey Branch and Skinner Branch. These facilities were tentatively identified several years ago. Some changes likely have occurred to the total number of facilities which will be affected by the project. Precise identification of affected facilities may be accomplished in the field when construction plans for these branches are prepared.

Entergy of Arkansas owns electric power lines within the project area, lying within Rickey and Skinner Branches. Rickey Branch contains 4 multi-wire power transmission lines and Skinner Branch has 2 3-wire power transmission lines which may be affected by the proposed project. Entergy officials have confirmed in writing that the company owns the indicated lines, and that these lines have been in place for more than 20 years.

Lonoke County, Arkansas, owns, maintains, and operates 6 roads and bridges within the affected areas. Within Rickey Branch there are the Lawson Road Bridge, 2 bridges on Lilly Road, and the D.K. Bennett Road Bridge. Rachel Lane Bridge and Cazer Lane Bridge are both located within Skinner Branch. Lonoke County officials have established by affidavits that all 5 roads and bridges have been in their county system for at least 12 years.

Grand Prairie Water Public Facilities Board of Lonoke County states that it owns water lines in the area surrounding the Lawson Bridge Road, in Rickey Branch, and these lines have been in place since at least 1986.

AT&T is the present owner of some buried telephone cables within Rickey Branch and Skinner Branch. Three of these cables are within Rickey Branch, one each in Relocation Sites 1, 2, and 4. The remaining cable lies in Relocation Site 2 of Skinner Branch. The representative of AT&T that provided this information could not be more specific about the length of time these cables have been in place. These cables were previously owned by Southwestern Bell, which has very recently been acquired by AT&T.

**Compensability** - This investigation has been preliminary in scope. However, I have contacted in writing each of the facility owners named above. I have received written responses from most of them regarding the facilities identified thus far for Rickey Branch and Skinner Branch in Lonoke County, Arkansas. Most respondents have indicated a need for more specific information to help them establish the exact locations of the affected facilities, to enable them to make more detailed records searches of their ownership data. This is particularly true in identifying underground facilities.

**Obligation to Pay** - A project such as this one ordinarily requires that the local sponsor will be responsible for accomplishing the relocations of facilities which serve the public. At such time as actual construction is undertaken of Rickey Branch and Skinner Branch, a more detailed investigation will be conducted. This will include the cost of the relocation and in some instances additional right-of-way, where facilities cannot be placed within public road right-of-way, where permitted by statute or by policy.

The Fifth Amendment to the United States Constitution requires just compensation for private property taken for public purposes. I am of the opinion that the local sponsor will be liable to each of the facility owners for the expenses of moving or altering their respective facilities, subject to any pre-existing agreements or statutory requirements which will be determined just prior to actual project construction.

The instruments referred to in this report are located in the official files of the Memphis District, Corps of Engineers.

Mary Ann Vandergriff
Attorney Advisor

Date: 6 Sept. 2006

# GRAND PRAIRIE REGION AND BAYOU METO BASIN, ARKANSAS PROJECT

# BAYOU METO BASIN, ARKANSAS

# GENERAL REEVALUATION REPORT AND PRELIMINARY DRAFT ENVIRONMENTAL IMPACT STATEMENT

# VOLUME 11 APPENDIX H

# REAL ESTATE FLOOD CONTROL COMPONENT

# REAL ESTATE PLAN
BAYOU METO PROJECT
LONOKE, JEFFERSON, PRAIRIE, &
ARKANSAS COUNTIES, ARKANSAS
SECTION 204 OF THE FLOOD CONTROL ACT OF 1950

## I. REAL ESTATE PLAN (REP) PURPOSE

**1.01.** The purpose of this Real Estate Plan (REP) is to present the real estate requirements and support the General Reevaluation Report (GRR) for the above captioned project. The information contained within this report, to include estimate of cost, is based on preliminary data and is subject to change.

**1.02.** This project will require the construction of multipurpose channels to provide outlets for reduced flooding and provide an improved channel for transferring supplemental irrigation flows. The project will require and estimated 2,427 acres, located throughout the Bayou Meto basin to construct this alternative. This acreage will be used for pump site location, excavating Little Bayou Meto, Five Forks Bayou, Long Pond Bayou, Wabbaseka Bayou, Indian Bayou, Crooked Creek, as well constructing a connecting channel at Little Bayou Meto and Big Bayou Meto.

**1.03.** The Grand Prairie Region and Bayou Meto Basin is a proposed project as authorized in Section 204, of the Flood Control Act of 1950 (64 Stat. 174) and reauthorized pursuant to section 363(a), Project Reauthorizations, of the Water Resources Development Act of 1996 (Public Law 104-303). The proposed work is located within the Bayou Meto Basin in Lonoke, Jefferson, Prairie, & Arkansas Counties, Arkansas. The four county project area is located in the southeast portion of the State of Arkansas. The subject area physical boundaries are the White River to the east, the Arkansas River to the south and west, and Cypress Bayou on the north.

**1.04.** A search of existing historical records failed to reveal any prior real estate plans prepared for this project.

**II. PROJECT LANDS, EASEMENTS, RIGHT-OF-WAY, RELOCATIONS, AND DISPOSAL AREAS (LERRD).**

**2.01.** The proposed work is located along portions of Little Bayou Meto, Five Forks Bayou, Long Pond Bayou, Wabbaseka Bayou, Indian Bayou, Crooked Creek, as well constructing connecting channels at Little Bayou Meto and Big Bayou Meto in Lonoke, Jefferson, Prairie, & Arkansas Counties, Arkansas.

**2.02.** This project will require the construction of multipurpose channels to provide outlets for reduced flooding and provide an improved channel for transferring supplemental irrigation flows. The project will require and estimated 2,427 acres, located throughout the Bayou Meto basin to construct this alternative. This acreage will be used for pump site location, excavating Little Bayou Meto, Five Forks Bayou, Long Pond Bayou, Wabbaseka Bayou, Indian Bayou, Crooked Creek, as well constructing a connecting channel at Little Bayou Meto and Big Bayou Meto. The acreage required for the project consists of open land and low-lying woodland owned by several unidentified owners. The indicated estates for the proposed construction will be a standard fee simple estate, a non-standard perpetual levee and channel improvement easement, and a non-standard perpetual clearing and snagging easement.

The project will require an estimated 2,427 acres, more or less, consisting of 0.0 acres subject to navigational servitude, 0.0 acres of sponsor owned land, 16.0 acres for a pump site, 700.0 acres for a perpetual clearing and snagging easement, and 1,711.0 acres that will be utilized for a perpetual levee and channel improvement easement. The estimated number of ownerships affected by the proposed construction project is 239. These ownerships consist of open land, woodland, and water.

In addition the acquisition of approximately 2,769 acres of compensatory mitigation land for the re-establishment of bottomland hardwoods on the frequently flooded open land will be required as a result of project construction. Personnel of the Vicksburg District Planning Division provided the required mitigation acreage. The estimated number of ownerships for the mitigation acquisition is 10. The location of the mitigation acreage will be determined at a later date and will be acquired from willing sellers.

A breakdown of the total project acreage by land use follows:

| | |
|---|---|
| Navigational Servitude Land | 0.00 Acres |
| Open land (Fee Simple) | 16.00 Acres |
| Open land (Mitigation Fee) | 2,769.00 Acres |
| Woodland (Perpetual Ea.) | 743.00 Acres |
| Water (Perpetual Ea.) | 1,668.00 Acres |
| Sponsor Owned Land | 0.00 Acres |
| Total | 5,196.00 Acres * |

* See paragraph 2.04 below.

**2.03.** Access to the project area will be by public roads and the easements along top bank of the streams affected by the project. Issues from an environmental standpoint appear to be minimal.

**2.04.** The 32,000-acre Bayou Meto Wildlife Management Area (WMA) is the largest management area operated by the Arkansas Game and Fish Commission. It is managed primarily for waterfowl and is one of the largest public use areas in the state. The 16.0 acres of fee acquisition involved in the pump station site, and 199 acres of perpetual easement utilized in the Little Bayou Meto Connecting Channel work are located adjacent to the WMA on private lands. This 215 acre acquisition is needed to support waterfowl management features that are located within the WMA and as such will be credited to the waterfowl management portion of the project.

## III. NON-FEDERAL SPONSOR (NFS) OWNED LERRD

**3.01.** A sponsoring agency must be a municipality or public agency fully empowered under state law to give assurance and financial capability in fulfilling all measures of local cooperation. This local sponsor must provide all right-of-ways without cost to the United States and assumes the operation and maintenance of improvements. The Bayou Meto Project is a cost-shared undertaking between the U.S. Army Corps of Engineers and the Arkansas Natural Resources Commission (ANRC). While the ANRC has provided a letter of intent to act as the non-Federal sponsor for the project, the Bayou Meto Water Management District has formed the legal entity to be a legally and financially capable partner with taxing authority. The Bayou Meto Water Management District will be responsible for providing or purchasing all lands, easements, and right-of-way and performing all necessary relocations for the project.

Considering this partnership, the sponsor has both the ability to acquire the necessary rights-of-way and the financial capability to do so.

**3.02.** None of the project LERRD is owned by the Arkansas Natural Resources Commission or its' partner the Bayou Meto Water Management District.

**IV. ESTATES TO BE ACQUIRED:**

The suggested estates to be used in conjunction with the project will be a standard fee excluding minerals estate for the pump site and mitigation acreage; and a non standard perpetual levee and channel improvement easement and non-standard clearing and snagging easement for the channel construction and excavation portion of the project. A copy of the proposed estates is contained in the addendum portion of this report as Exhibit IV.

**V. EXISTING FEDERAL OR OVERLAPPING PROJECTS.** There are no known existing Federal projects that lie fully or partially within the proposed project LERRD.

**VI. FEDERALLY OWNED LANDS.** There are no known Federally owned lands that that lie fully or partially within the proposed project LERRD.

**VII. NAVIGATIONAL SERVITUDE** After referencing the Vicksburg District Operations Division listing of navigable water ways within the Vicksburg District, it was determined that none of the streams within the project area were considered a navigable waterway. Therefore none of the project area is subject to navigational servitude as maintained by the United States.

**VIII. PROJECT MAP** A map depicting the proposed work area is contained in the addendum section of this report as Exhibit I. The Vicksburg District Project Management Branch provided Real Estate Division the map along with its dimensions and acreages.

**IX. INDUCED FLOODING** The project construction will provide for greater flood protection, by construction of multipurpose

channels to provide outlets for reduced flooding and provide an improved channel for transferring supplemental irrigation flows, and therefore will not impound water on others or induce flooding.

## X. REAL ESTATE BASELINE COST ESTIMATE (BCE)

**10.01.** A gross appraisal has been prepared to determine the estimated market value of the project LERRD. This estimate of land value will be used as a basis for determining any credit the NFS may be eligible for in providing LERRD in accordance with the terms of the PCA. These values are represented in the "Real Estate Land Payments By Local Sponsor (Lands and Damages)" section of the Real Estate BCE (Exhibit II).

**10.02.** Acquisition of subsurface rights was not considered in development of land values.

**10.03.** The highest and best use of the land to be acquired for the project was their present use as open land and woodland.

**10.04.** There is one improvement located in the work area. This improvement is a private bridge located in the Little Bayou Meto portion of the project. The estimated value of the bridge was provided the appraiser by personnel of the Vicksburg District Engineering Division and is included in the cost estimate.

## XI. RELOCATION ASSISTANCE BENEFITS, PL 91-646

Activities associated with the appraisal and acquisition of the rights required for the project will be monitored by the Vicksburg District Real Estate Division to assure compliance with P.L. 91-646 and schedule requirements. No persons, farms, or businesses will be displaced as a result of the project; therefore no Title II relocation assistance benefits will be required. However, some Title III costs are anticipated. Title III costs are those necessary to reimburse owners fair and reasonable expenses necessarily incurred incidental to transfer title, including recording fees, transfer taxes, penalty costs for prepayment of mortgage, pro rata portions of real estate taxes, etc. The estimated cost to cover PL 91-646 payments is $131,716.00.

**XII. MINERAL ACTIVITY** There are no visual signs of mineral activity existing within the project work area. In addition there are no known plans for future mineral activity.

**XIII. NON-FEDERAL SPONSOR REAL ESTATE ACQUISITION CAPABILITY** The Arkansas Natural Resources Commission in partnership with the Bayou Meto Water Management District will furnish all rights-of-ways associated with the project. An assessment of the NFS real estate acquisition capability has been performed and the checklist is included as Exhibit III. Based on the results of this assessment, the non-federal sponsor will contract with a real estate consultant firm that has the capability to perform all real estate requirements. In addition, the NFS has the authority to accomplish land acquisition by direct purchase or eminent domain proceedings within its jurisdiction.

**XIV. ZONING ORDINANCE REQUIREMENTS** There will be no zoning ordinance change or enactment to facilitate the project acquisition. There is no existing zoning in the project area.

**XV. PROJECT MILESTONES AND SCHEDULES** According to the Vicksburg District Project Management Branch, the schedules with tentative major milestones for the eight separate items of work in the proposed project are detailed and can be found in the Project Management Plan.

**XVI. PUBLIC UTILITY OR FACILITY RELOCATIONS.** The construction of this work of improvement will require relocation of and/or alteration of two (2) highway bridges, one (1) county bridge, three (3) power lines, two (2) water lines, one (1) gas pipeline, three (3) telephone cables, and one (1) fiber optic cable utilities. A preliminary attorney's investigation was prepared on June 13, 2003 in which the compensable interest in the property on which the utilities were located was made (See Exhibit V). In the event subsequent investigation identifies the need for additional relocations, the NFS will be responsible, to include any necessary LERRD requirement, for any and all cost associated.

**XVII. HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW)** The Memphis District Hydraulic Branch's Water Quality Section personnel conducted a preliminary HTRW assessment survey on 07 February 2002. The results from the data base survey and site inspection indicate no evidence of recognized HTRW environmental conditions that would impact proposed improvements within the proposed project area. All baseline real estate cost estimates for LER were made with the assumptions that there are no known or observed Hazardous, Toxic, and Radioactive Waste sites existing on or within the impacted areas.

**XVIII. LANDOWNER ATTITUDES**

**18.01.** Landowners impacted directly by construction are informed of the proposed project and have been included in meetings to discuss project issues with the NFS, local elected officials, and other interested parties. These owners have voiced no opposition and in fact appear receptive and supportive of the project.

**18.02.** Use of condemnation or eminent domain proceedings to secure the LERRD for the item of work is authorized in the event they are necessary.

**XIX. NOTIFICATION TO THE NON-FEDERAL SPONSOR** As of the date of this report, the local sponsor for the project has not acquired any lands needed for the project. The sponsor has been informed about the risks associated with acquiring land before execution of the PCA. No LERRD acquisition is anticipated prior to the signing of the Project Cooperation Agreement (PCA). Official notification for the NFS to proceed with the right-of-way acquisition will not occur unless specifically authorized or until after signing of the PCA.

**XX. OTHER RELEVANT ESTATE ISSUES**

**20.01** An environmental assessment and draft Finding Of No Significant Impact (FONSI) have been prepared by the Vicksburg District Hydraulics Branch. Results of the assessment were a finding of no long-term impact to water quality as a result of project construction.

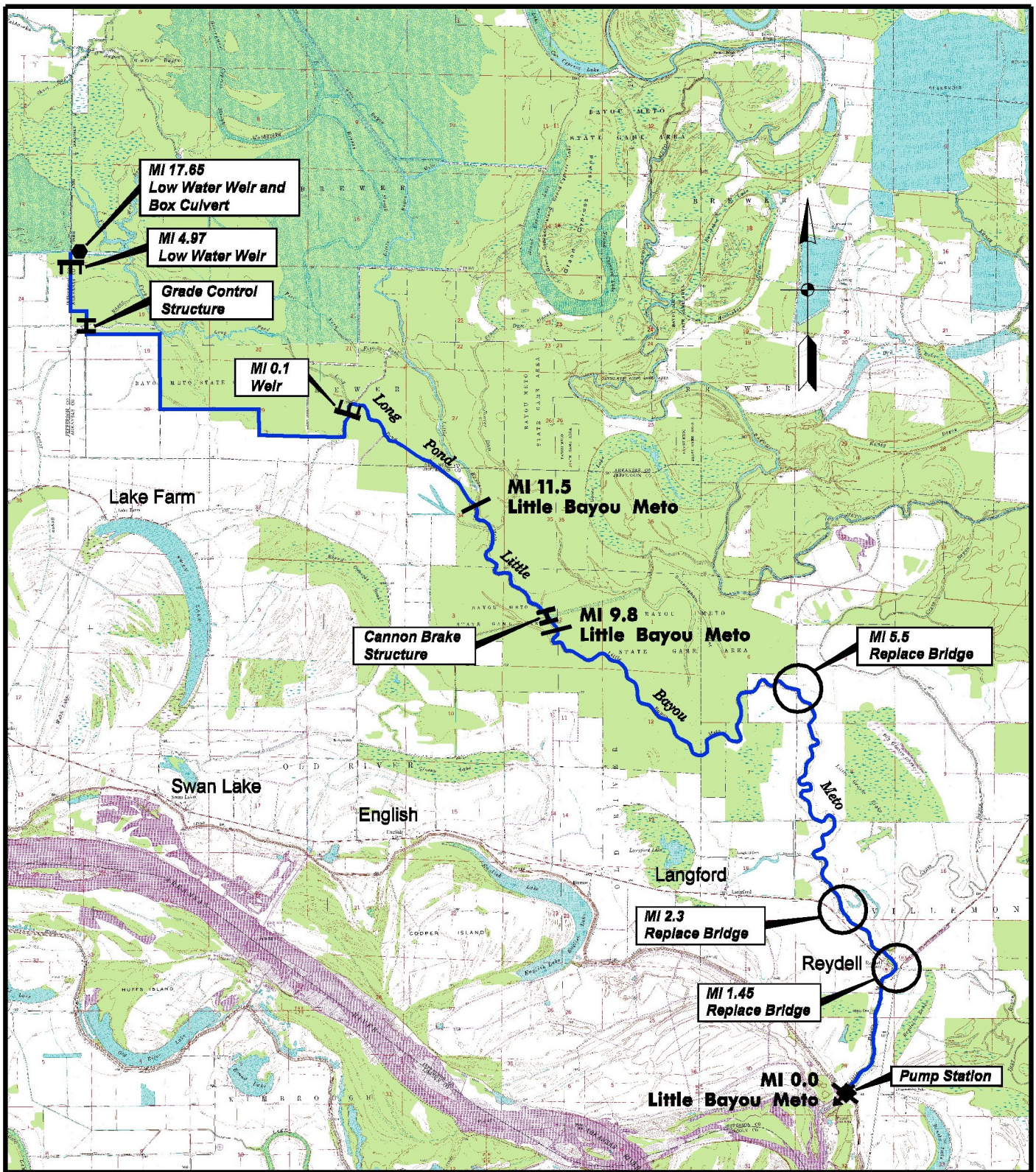
**20.02.** The Memphis District archeologist inspected the project area. Fourteen sites potentially eligible for inclusion in the National Register of Historic Places (NRHP) are located within various project rights-of-way. Phase II testing will be performed at these sites to determine NRHP status and whether or not project re-alignment would be required. The Vicksburg District will continue to monitor and respond as needed regarding the possibility of an inadvertent discovery of any yet-identified cultural resources throughout the area of potential effect. If such resources are encountered during the course of the project, they will be evaluated, assessed for effects, and mitigated in accordance with Federal laws and regulations.

**20.03.** There are no known towns, schools, churches or cemeteries within the proposed right-of-way limits. Real Estate is aware of one cemetery in the project vicinity; however it is not in the proposed right-of-way. All cemeteries, dwellings, cultural, and historic sites will be avoided by alternating banks along the channel work reaches. If for some unavoidable reason a cemetery is within the proposed right-of-way it will be addressed in accordance with ER 405-1-12, Chapter 5, Section 5-18, Paragraph "m".

Prepared By
Robert S. Wood
Review Appraiser
Date: 18 July 2006

Approving Official
Burke S. Torrey
Chief, Real Estate Division
Date: 7/18/2006

EXHIBITS
I. LER Map
II. Baseline Cost Estimate
III. Sponsors Assessment
IV. Suggested Estates
V. Preliminary Attorneys Opinion of Compensability

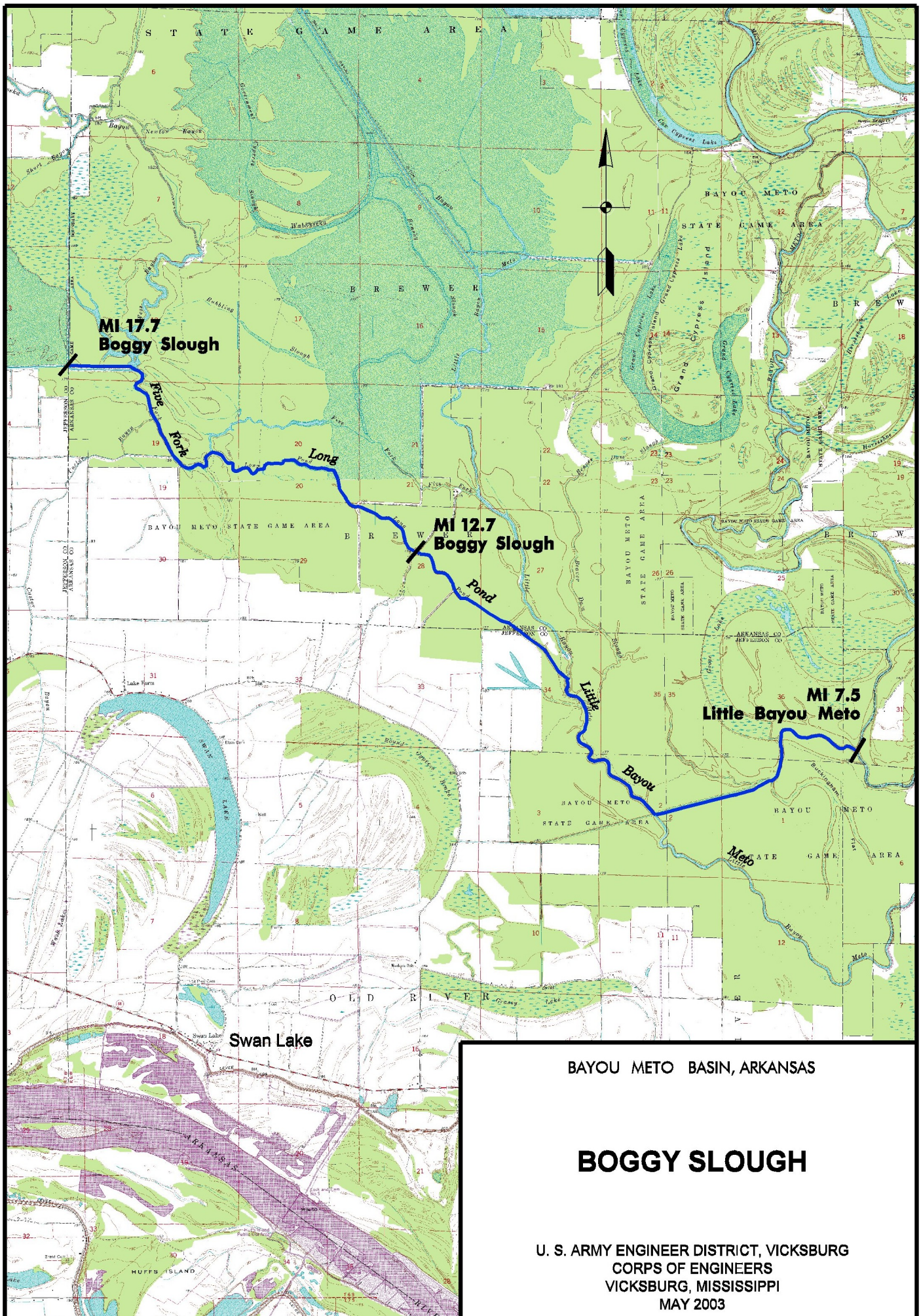



BAYOU METO BASIN, ARKANSAS

# LITTLE BAYOU METO

U. S. ARMY ENGINEER DISTRICT, VICKSBURG
CORPS OF ENGINEERS
VICKSBURG, MISSISSIPPI
MAY 2003

FIGURE NO.

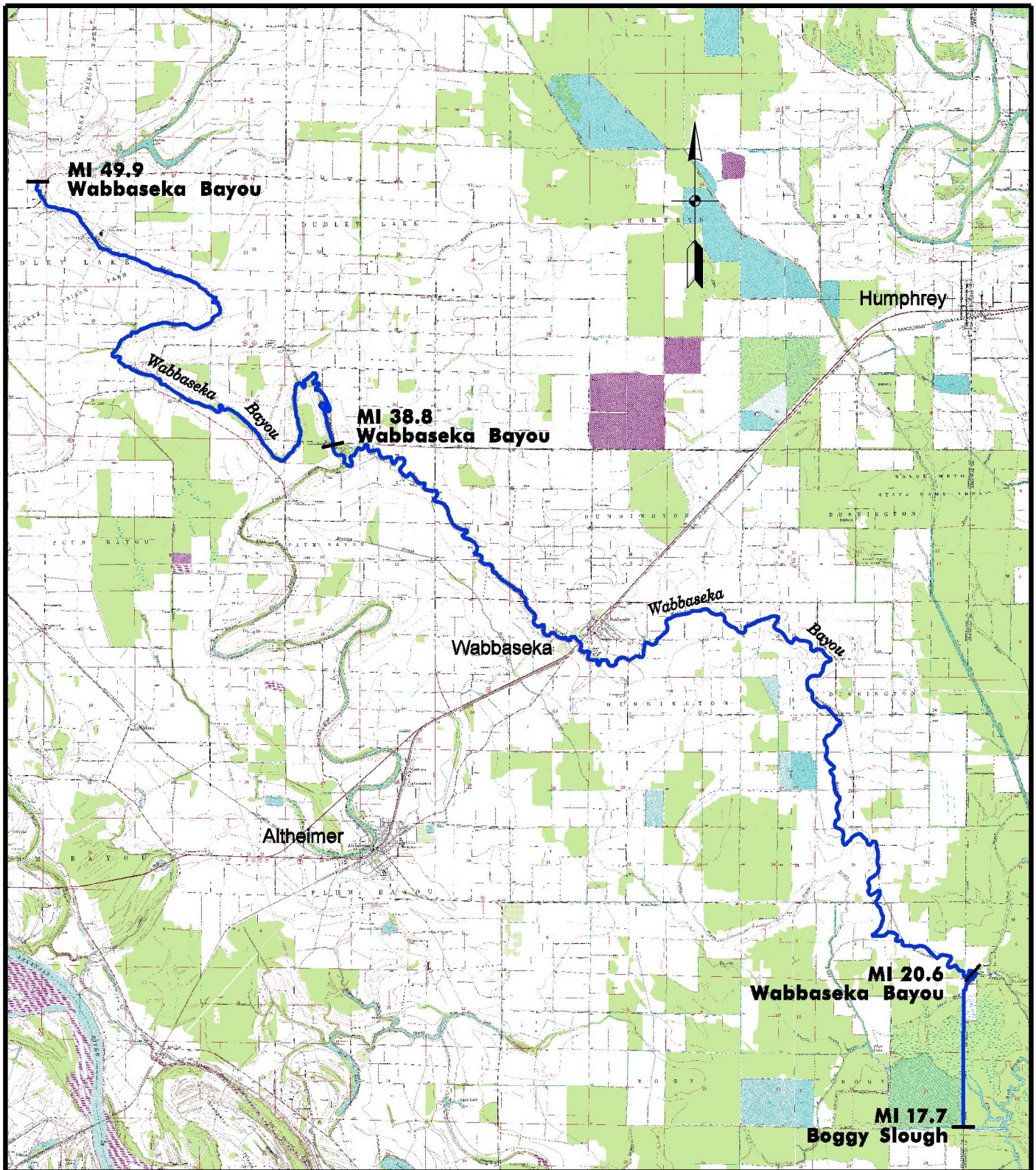



BAYOU METO BASIN, ARKANSAS

# BOGGY SLOUGH

U. S. ARMY ENGINEER DISTRICT, VICKSBURG
CORPS OF ENGINEERS
VICKSBURG, MISSISSIPPI
MAY 2003

FIGURE NO.

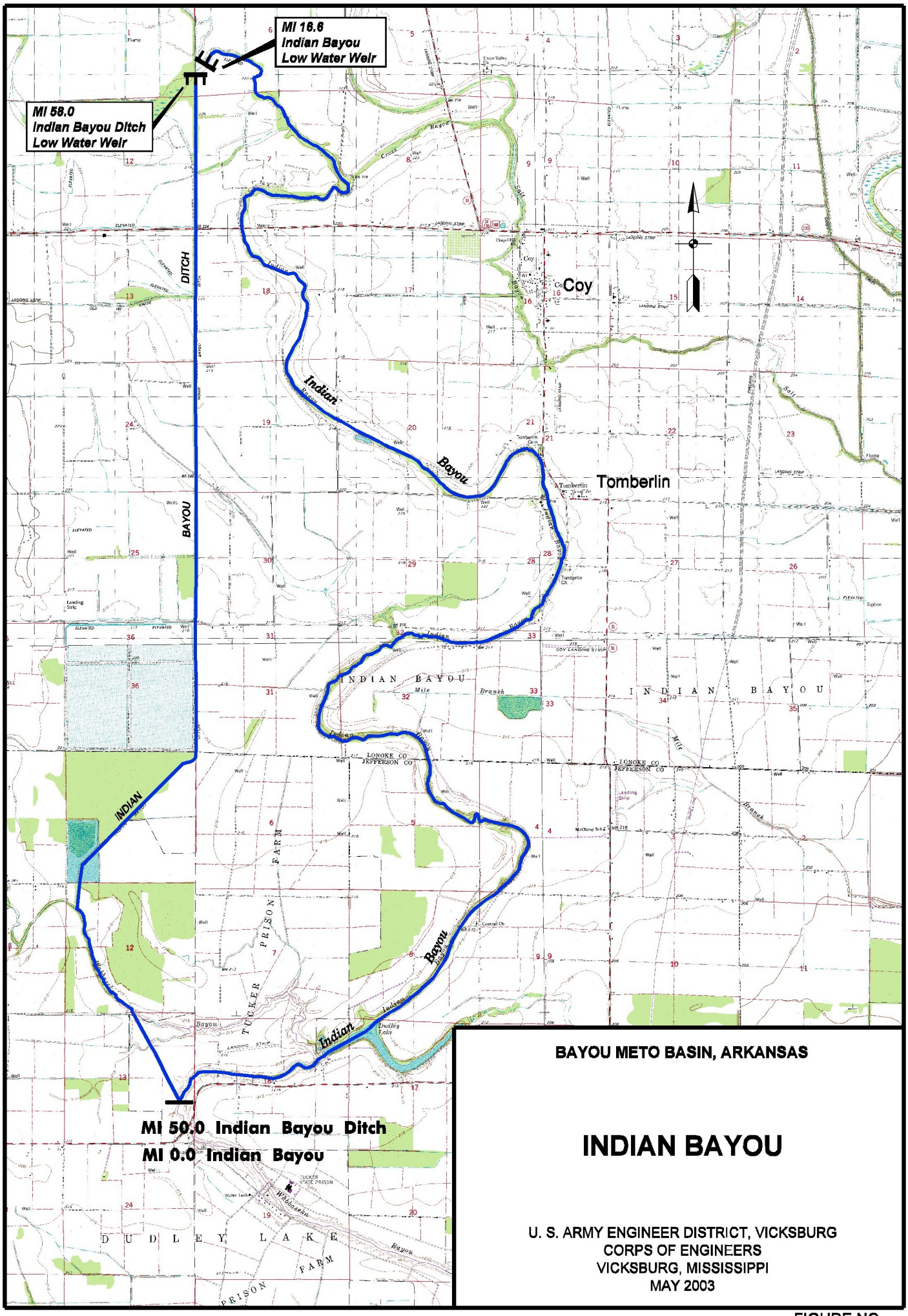



BAYOU METO BASIN, ARKANSAS

# WABBASEKA BAYOU

U. S. ARMY ENGINEER DISTRICT, VICKSBURG
CORPS OF ENGINEERS
VICKSBURG, MISSISSIPPI
MAY 2003

FIGURE NO.

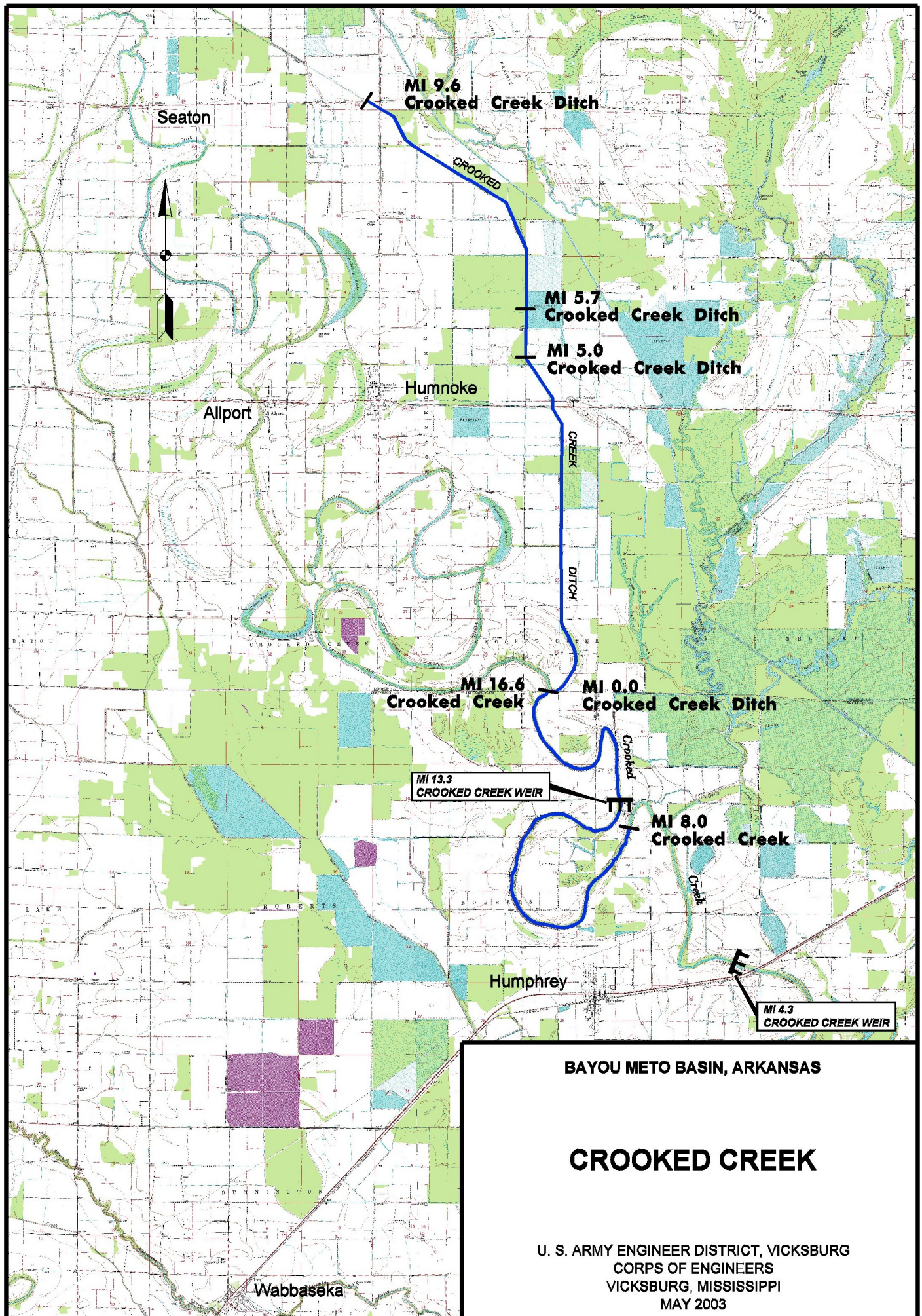



BAYOU METO BASIN, ARKANSAS

# INDIAN BAYOU

U. S. ARMY ENGINEER DISTRICT, VICKSBURG
CORPS OF ENGINEERS
VICKSBURG, MISSISSIPPI
MAY 2003

FIGURE NO.

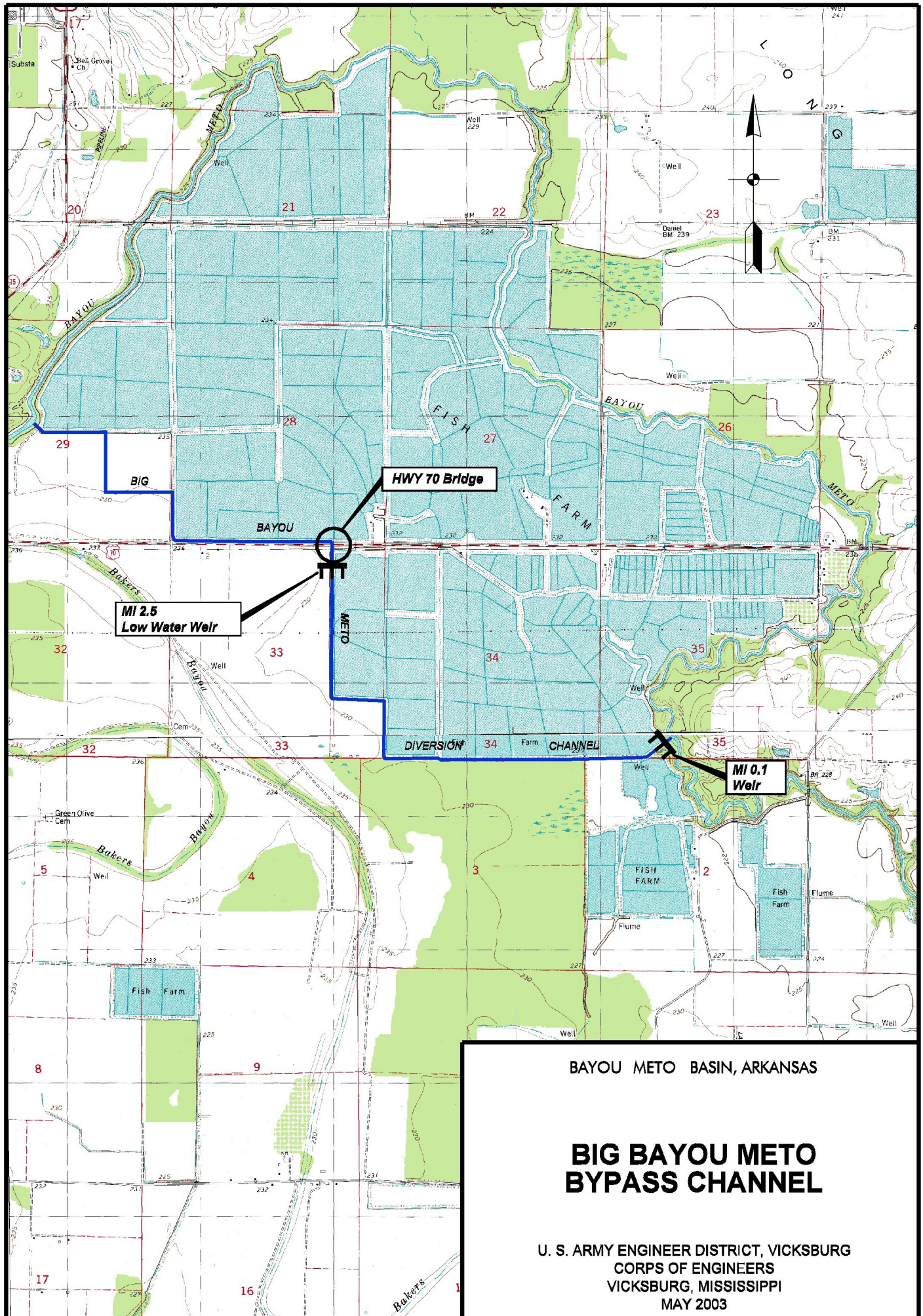



BAYOU METO BASIN, ARKANSAS

# CROOKED CREEK

U. S. ARMY ENGINEER DISTRICT, VICKSBURG
CORPS OF ENGINEERS
VICKSBURG, MISSISSIPPI
MAY 2003

FIGURE NO.




BAYOU METO BASIN, ARKANSAS

# BIG BAYOU METO BYPASS CHANNEL

U. S. ARMY ENGINEER DISTRICT, VICKSBURG
CORPS OF ENGINEERS
VICKSBURG, MISSISSIPPI
MAY 2003

FIGURE NO.

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | **Item 1- Little Bayou Meto Pump Station** | | | | | | |
| | Estimated Number of Owners: | 3 | | | | ROUNDED | $ 50,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 40,000 | $ 10,000 | $ 50,000 |
| | | | | | | | |
| 01 | **LANDS AND DAMAGES** | AMOUNT | CONTINGENCY | PROJECT COST | $ 40,000 | $ 10,000 | $ 50,000 |
| | | | | | | | |
| 01A | **PROJECT PLANNING** | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ - | $ - | $ - | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | **ACQUISITIONS** | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 11,340 | $ 2,840 | $ 14,180 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 3,045 | $ 760 | $ 3,805 | | | |
| | | | | | | | |
| 01C | **CONDEMNATIONS** | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | **INLEASING** | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | **APPRAISAL** | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 3,000 | $ 750 | $ 3,750 | | | |
| 01E30 | BY LS | $ - | $ - | $ - | | | |
| 01E40 | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 675 | $ 170 | $ 845 | | | |
| | | | | | | | |
| 01F | **PL 91-646 ASSISTANCE** | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 450 | $ 110 | $ 560 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 150 | $ 40 | $ 190 | | | |
| | | | | | | | |
| 01G | **TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY** | | | | | | |
| 01G10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01G20 | BY LS | $ 450 | $ 110 | $ 560 | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01H | **AUDITS** | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ - | $ - | $ - | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | **ENCROACHMENTS AND TRESPASS** | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | **DISPOSALS** | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | **REAL PROPERTY ACCOUNTABILITY** | | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | **PROJECT RELATED ADMINISTRATION** | $ 360 | $ 90 | $ 450 | | | |
| | | | | | | | |
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 19,200 | $ 5,000 | $ 24,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | $ - | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ 1,325 | $ 300 | $ 1,625 | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | $ - | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01T | **LERRD CREDITING** | $ - | $ - | $ - | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ - | $ - | $ - | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ - | $ - | $ - | | | |
| | | | | | | | |
| | **Allocation:** | **$ 39,995** | **$ 10,170** | **$ 49,965** | | | |
| | | | | | | | |
| | **Total Federal:** | $ 4,230 | $ 1,060 | $ 5,290 | | | |
| | | | | | | | |
| | **Total Non-Federal:** | $ 35,765 | $ 9,110 | $ 44,675 | | | |
| | | | | | | | |
| | **Total Non-Federal minus Lands:** | $ 15,240 | $ 3,810 | $ 19,050 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | **Item 2- Little Bayou Meto Connection Channel** | | | | | | |
| | Estimated Number of Owners: | 18 | | | | ROUNDED | $ 389,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 311,000 | $ 78,000 | $ 389,000 |
| | | | | | | | |
| 01 | **LANDS AND DAMAGES** | AMOUNT | CONTINGENCY | PROJECT COST | $ 311,000 | $ 78,000 | $ 389,000 |
| | | | | | | | |
| 01A | **PROJECT PLANNING** | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ - | $ - | $ - | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ 3,800 | $ 950 | $ 4,750 | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | **ACQUISITIONS** | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 68,040 | $ 17,010 | $ 85,050 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 18,270 | $ 4,570 | $ 22,840 | | | |
| | | | | | | | |
| 01C | **CONDEMNATIONS** | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | **INLEASING** | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | **APPRAISAL** | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 18,000 | $ 4,500 | $ 22,500 | | | |
| 01E30 | BY LS | $ - | $ - | $ - | | | |
| 01E40 | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 4,050 | $ 1,010 | $ 5,060 | | | |
| | | | | | | | |
| 01F | **PL 91-646 ASSISTANCE** | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 2,700 | $ 680 | $ 3,380 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 900 | $ 230 | $ 1,130 | | | |
| | | | | | | | |
| 01G | **TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY** | | | | | | |
| 01G10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01G20 | BY LS | $ 2,700 | $ 680 | $ 3,380 | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01H | **AUDITS** | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ - | $ - | $ - | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | **ENCROACHMENTS AND TRESPASS** | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | **DISPOSALS** | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | **REAL PROPERTY ACCOUNTABILITY** | | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | **PROJECT RELATED ADMINISTRATION** | $ 2,160 | $ 540 | $ 2,700 | | | |
| | | | | | | | |
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 182,000 | $ 46,000 | $ 228,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | $ - | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ 7,950 | $ 2,000 | $ 9,950 | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | $ - | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01T | **LERRD CREDITING** | $ - | $ - | $ - | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ - | $ - | $ - | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ - | $ - | $ - | | | |
| | | | | | | | |
| | **Allocation:** | **$ 310,570** | **$ 78,170** | **$ 388,740** | | | |
| | | | | | | | |
| | **Total Federal:** | $ 29,180 | $ 7,300 | $ 36,480 | | | |
| | | | | | | | |
| | **Total Non-Federal:** | $ 281,390 | $ 70,870 | $ 352,260 | | | |
| | | | | | | | |
| | **Total Non-Federal minus Lands:** | $ 91,440 | $ 22,870 | $ 114,310 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | **Item 3- Boggy Slough** | | | | | | |
| | Estimated Number of Owners: | 3 | | | | ROUNDED | $ 85,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 68,000 | $ 17,000 | $ 85,000 |
| | | | | | | | |
| 01 | **LANDS AND DAMAGES** | AMOUNT | CONTINGENCY | PROJECT COST | $ 68,000 | $ 17,000 | $ 85,000 |
| | | | | | | | |
| 01A | **PROJECT PLANNING** | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ - | $ - | $ - | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | **ACQUISITIONS** | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 11,340 | $ 2,840 | $ 14,180 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 3,045 | $ 760 | $ 3,805 | | | |
| | | | | | | | |
| 01C | **CONDEMNATIONS** | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | **INLEASING** | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | **APPRAISAL** | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 3,000 | $ 750 | $ 3,750 | | | |
| 01E30 | BY LS | $ - | $ - | $ - | | | |
| 01E40 | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 675 | $ 170 | $ 845 | | | |
| | | | | | | | |
| 01F | **PL 91-646 ASSISTANCE** | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 450 | $ 110 | $ 560 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 150 | $ 40 | $ 190 | | | |
| | | | | | | | |
| 01G | **TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY** | | | | | | |
| 01G10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01G20 | BY LS | $ 450 | $ 110 | $ 560 | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01H | **AUDITS** | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ - | $ - | $ - | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | **ENCROACHMENTS AND TRESPASS** | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | **DISPOSALS** | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | **REAL PROPERTY ACCOUNTABILITY** | | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | **PROJECT RELATED ADMINISTRATION** | $ 360 | $ 90 | $ 450 | | | |
| | | | | | | | |
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 47,000 | $ 12,000 | $ 59,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | $ - | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ 1,325 | $ 300 | $ 1,625 | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | $ - | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01T | **LERRD CREDITING** | $ - | $ - | $ - | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ - | $ - | $ - | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ - | $ - | $ - | | | |
| | | | | | | | |
| | **Allocation:** | **$ 67,795** | **$ 17,170** | **$ 84,965** | | | |
| | | | | | | | |
| | **Total Federal:** | $ 4,230 | $ 1,060 | $ 5,290 | | | |
| | | | | | | | |
| | **Total Non-Federal:** | $ 63,565 | $ 16,110 | $ 79,675 | | | |
| | | | | | | | |
| | **Total Non-Federal minus Lands:** | $ 15,240 | $ 3,810 | $ 19,050 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Item 4- Wabbaseka Bayou Channel Cleanout and Restoration | | | | | | |
| | Estimated Number of Owners: | 42 | | | | ROUNDED | $ 690,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 552,000 | $ 138,000 | $ 690,000 |
| | | | | | | | |
| 01 | **LANDS AND DAMAGES** | AMOUNT | CONTINGENCY | PROJECT COST | $ 552,000 | $ 138,000 | $ 690,000 |
| | | | | | | | |
| 01A | **PROJECT PLANNING** | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ - | $ - | $ - | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | **ACQUISITIONS** | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 158,760 | $ 39,690 | $ 198,450 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 42,630 | $ 10,660 | $ 53,290 | | | |
| | | | | | | | |
| 01C | **CONDEMNATIONS** | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | **INLEASING** | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | **APPRAISAL** | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 42,000 | $ 10,500 | $ 52,500 | | | |
| 01E30 | BY LS | $ - | $ - | $ - | | | |
| 01E40 | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 9,450 | $ 2,360 | $ 11,810 | | | |
| | | | | | | | |
| 01F | **PL 91-646 ASSISTANCE** | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 6,300 | $ 1,580 | $ 7,880 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 2,100 | $ 530 | $ 2,630 | | | |
| | | | | | | | |
| 01G | **TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY** | | | | | | |
| 01G10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01G20 | BY LS | $ 6,300 | $ 1,580 | $ 7,880 | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01H | **AUDITS** | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ - | $ - | $ - | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | **ENCROACHMENTS AND TRESPASS** | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | **DISPOSALS** | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | **REAL PROPERTY ACCOUNTABILITY** | | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | **PROJECT RELATED ADMINISTRATION** | $ 5,040 | $ 1,260 | $ 6,300 | | | |
| | | | | | | | |
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 261,000 | $ 65,000 | $ 326,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | $ - | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ 18,550 | $ 4,600 | $ 23,150 | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | $ - | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01T | **LERRD CREDITING** | $ - | $ - | $ - | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ - | $ - | $ - | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ - | $ - | $ - | | | |
| | | | | | | | |
| | **Allocation:** | **$ 552,130** | **$ 137,760** | **$ 689,890** | | | |
| | | | | | | | |
| | **Total Federal:** | $ 59,220 | $ 14,810 | $ 74,030 | | | |
| | | | | | | | |
| | **Total Non-Federal:** | $ 492,910 | $ 122,950 | $ 615,860 | | | |
| | | | | | | | |
| | **Total Non-Federal minus Lands:** | $ 213,360 | $ 53,350 | $ 266,710 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | **Item 5- Indian Bayou Ditch** | | | | | | |
| | Estimated Number of Owners: | 26 | | | | ROUNDED | $ 300,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 239,000 | $ 60,000 | $ 300,000 |
| | | | | | | | |
| 01 | **LANDS AND DAMAGES** | AMOUNT | CONTINGENCY | PROJECT COST | $ 239,000 | $ 60,000 | $ 300,000 |
| | | | | | | | |
| 01A | **PROJECT PLANNING** | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ - | $ - | $ - | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | **ACQUISITIONS** | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 98,280 | $ 24,570 | $ 122,850 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 26,390 | $ 6,600 | $ 32,990 | | | |
| | | | | | | | |
| 01C | **CONDEMNATIONS** | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | **INLEASING** | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | **APPRAISAL** | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 26,000 | $ 6,500 | $ 32,500 | | | |
| 01E30 | BY LS | $ - | $ - | $ - | | | |
| 01E40 | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 5,850 | $ 1,460 | $ 7,310 | | | |
| | | | | | | | |
| 01F | **PL 91-646 ASSISTANCE** | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 3,900 | $ 980 | $ 4,880 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 1,300 | $ 330 | $ 1,630 | | | |
| | | | | | | | |
| 01G | **TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY** | | | | | | |
| 01G10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01G20 | BY LS | $ 3,900 | $ 980 | $ 4,880 | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01H | **AUDITS** | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ - | $ - | $ - | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | **ENCROACHMENTS AND TRESPASS** | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | **DISPOSALS** | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | **REAL PROPERTY ACCOUNTABILITY** | | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | **PROJECT RELATED ADMINISTRATION** | $ 3,120 | $ 780 | $ 3,900 | | | |
| | | | | | | | |
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 59,000 | $ 15,000 | $ 74,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | $ - | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ 11,483 | $ 2,900 | $ 14,383 | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | $ - | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01T | **LERRD CREDITING** | $ - | $ - | $ - | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ - | $ - | $ - | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ - | $ - | $ - | | | |
| | | | | | | | |
| | **Allocation:** | **$ 239,223** | **$ 60,100** | **$ 299,323** | | | |
| | | | | | | | |
| | **Total Federal:** | $ 36,660 | $ 9,170 | $ 45,830 | | | |
| | | | | | | | |
| | **Total Non-Federal:** | $ 202,563 | $ 50,930 | $ 253,493 | | | |
| | | | | | | | |
| | **Total Non-Federal minus Lands:** | $ 132,080 | $ 33,030 | $ 165,110 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | **Item 6- Indian Bayou Channel Cleanout and Restoration** | | | | | | |
| | Estimated Number of Owners: | 77 | | | | ROUNDED | $ 773,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 618,000 | $ 154,000 | $ 773,000 |
| | | | | | | | |
| 01 | **LANDS AND DAMAGES** | AMOUNT | CONTINGENCY | PROJECT COST | $ 618,000 | $ 154,000 | $ 773,000 |
| | | | | | | | |
| 01A | **PROJECT PLANNING** | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ - | $ - | $ - | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | **ACQUISITIONS** | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 291,060 | $ 72,770 | $ 363,830 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 78,155 | $ 19,540 | $ 97,695 | | | |
| | | | | | | | |
| 01C | **CONDEMNATIONS** | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | **INLEASING** | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | **APPRAISAL** | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 77,000 | $ 19,250 | $ 96,250 | | | |
| 01E30 | BY LS | $ - | $ - | $ - | | | |
| 01E40 | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 17,325 | $ 4,330 | $ 21,655 | | | |
| | | | | | | | |
| 01F | **PL 91-646 ASSISTANCE** | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 11,550 | $ 2,890 | $ 14,440 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 3,850 | $ 960 | $ 4,810 | | | |
| | | | | | | | |
| 01G | **TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY** | | | | | | |
| 01G10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01G20 | BY LS | $ 11,550 | $ 2,890 | $ 14,440 | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01H | **AUDITS** | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ - | $ - | $ - | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | **ENCROACHMENTS AND TRESPASS** | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | **DISPOSALS** | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | **REAL PROPERTY ACCOUNTABILITY** | | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | **PROJECT RELATED ADMINISTRATION** | $ 9,240 | $ 2,310 | $ 11,550 | | | |
| | | | | | | | |
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 84,000 | $ 21,000 | $ 105,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | $ - | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ 34,008 | $ 8,500 | $ 42,508 | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | $ - | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01T | **LERRD CREDITING** | $ - | $ - | $ - | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ - | $ - | $ - | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ - | $ - | $ - | | | |
| | | | | | | | |
| | **Allocation:** | **$ 617,738** | **$ 154,440** | **$ 772,178** | | | |
| | | | | | | | |
| | **Total Federal:** | $ 108,570 | $ 27,140 | $ 135,710 | | | |
| | | | | | | | |
| | **Total Non-Federal:** | $ 509,168 | $ 127,300 | $ 636,468 | | | |
| | | | | | | | |
| | **Total Non-Federal minus Lands:** | $ 391,160 | $ 97,800 | $ 488,960 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | **Item 8- Crooked Creek and Crooked Creek Ditch Cleanout** | | | | | | |
| | Estimated Number of Owners: | 49 | | | | ROUNDED | $ 516,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 413,000 | $ 103,000 | $ 516,000 |
| | | | | | | | |
| 01 | **LANDS AND DAMAGES** | AMOUNT | CONTINGENCY | PROJECT COST | $ 413,000 | $ 103,000 | $ 516,000 |
| | | | | | | | |
| 01A | **PROJECT PLANNING** | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ - | $ - | $ - | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | **ACQUISITIONS** | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 185,220 | $ 46,310 | $ 231,530 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 49,735 | $ 12,430 | $ 62,165 | | | |
| | | | | | | | |
| 01C | **CONDEMNATIONS** | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | **INLEASING** | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | **APPRAISAL** | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 49,000 | $ 12,250 | $ 61,250 | | | |
| 01E30 | BY LS | $ - | $ - | $ - | | | |
| 01E40 | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 11,025 | $ 2,760 | $ 13,785 | | | |
| | | | | | | | |
| 01F | **PL 91-646 ASSISTANCE** | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 7,350 | $ 1,840 | $ 9,190 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 2,450 | $ 610 | $ 3,060 | | | |
| | | | | | | | |
| 01G | **TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY** | | | | | | |
| 01G10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01G20 | BY LS | $ 7,350 | $ 1,840 | $ 9,190 | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01H | **AUDITS** | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ - | $ - | $ - | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | **ENCROACHMENTS AND TRESPASS** | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | **DISPOSALS** | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | **REAL PROPERTY ACCOUNTABILITY** | | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | **PROJECT RELATED ADMINISTRATION** | $ 5,880 | $ 1,470 | $ 7,350 | | | |
| | | | | | | | |
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 73,000 | $ 18,000 | $ 91,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | $ - | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ 21,642 | $ 5,400 | $ 27,042 | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | $ - | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01T | **LERRD CREDITING** | $ - | $ - | $ - | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ - | $ - | $ - | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ - | $ - | $ - | | | |
| | | | | | | | |
| | **Allocation:** | **$ 412,652** | **$ 102,910** | **$ 515,562** | | | |
| | | | | | | | |
| | **Total Federal:** | $ 69,090 | $ 17,270 | $ 86,360 | | | |
| | | | | | | | |
| | **Total Non-Federal:** | $ 343,562 | $ 85,640 | $ 429,202 | | | |
| | | | | | | | |
| | **Total Non-Federal minus Lands:** | $ 248,920 | $ 62,240 | $ 311,160 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | **Item 9- Big Bayou Meto Diversion** | | | | | | |
| | Estimated Number of Owners: | 14 | | | | ROUNDED | $ 200,000 |
| | | | | | | | |
| | **TOTAL PROJECT COSTS** | | | | $ 159,000 | $ 40,000 | $ 200,000 |
| | | | | | | | |
| 01 | **LANDS AND DAMAGES** | AMOUNT | CONTINGENCY | PROJECT COST | $ 159,000 | $ 40,000 | $ 200,000 |
| | | | | | | | |
| 01A | **PROJECT PLANNING** | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ - | $ - | $ - | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ 3,800 | $ 950 | $ 4,750 | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01B | **ACQUISITIONS** | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 52,920 | $ 13,230 | $ 66,150 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 14,210 | $ 3,550 | $ 17,760 | | | |
| | | | | | | | |
| 01C | **CONDEMNATIONS** | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01D | **INLEASING** | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01E | **APPRAISAL** | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 14,000 | $ 3,500 | $ 17,500 | | | |
| 01E30 | BY LS | $ - | $ - | $ - | | | |
| 01E40 | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 3,150 | $ 790 | $ 3,940 | | | |
| | | | | | | | |
| 01F | **PL 91-646 ASSISTANCE** | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 2,100 | $ 530 | $ 2,630 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 700 | $ 180 | $ 880 | | | |
| | | | | | | | |
| 01G | **TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY** | | | | | | |
| 01G10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01G20 | BY LS | $ 2,100 | $ 530 | $ 2,630 | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01H | **AUDITS** | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ - | $ - | $ - | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01J | **ENCROACHMENTS AND TRESPASS** | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01K | **DISPOSALS** | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01L00 | **REAL PROPERTY ACCOUNTABILITY** | | $ - | $ - | | | |
| | | | | | | | |
| 01M00 | **PROJECT RELATED ADMINISTRATION** | $ 1,680 | $ 420 | $ 2,100 | | | |
| | | | | | | | |
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 58,000 | $ 15,000 | $ 73,000 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | $ - | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ 6,183 | $ 1,500 | $ 7,683 | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | $ - | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01T | **LERRD CREDITING** | $ - | $ - | $ - | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ - | $ - | $ - | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ - | $ - | $ - | | | |
| | | | | | | | |
| | **Allocation:** | **$ 158,843** | **$ 40,180** | **$ 199,023** | | | |
| | | | | | | | |
| | **Total Federal:** | $ 23,540 | $ 5,890 | $ 29,430 | | | |
| | | | | | | | |
| | **Total Non-Federal:** | $ 135,303 | $ 34,290 | $ 169,593 | | | |
| | | | | | | | |
| | **Total Non-Federal minus Lands:** | $ 71,120 | $ 17,790 | $ 88,910 | | | |

| PROJECT NAME | Bayou Meto | | | | AMOUNT | CONTINGENCY | PROJECT COST |
|---|---|---|---|---|---|---|---|
| | Mitigation | | | | | | |
| | Estimated Number of Owners: | 10 | | | | ROUNDED | $ 3,373,080 |
| | **TOTAL PROJECT COSTS** | | | | $ 2,698,450 | $ 674,630 | $ 3,373,080 |
| 01 | **LANDS AND DAMAGES** | AMOUNT | CONTINGENCY | PROJECT COST | $ 2,698,450 | $ 674,630 | $ 3,373,080 |
| 01A | **PROJECT PLANNING** | | | | | | |
| 01A10 | REAL ESTATE SUPPLEMENT/PLAN | $ - | $ - | $ - | | | |
| 01A20 | PRELIMINARY RE ACQUISITION MAPS | $ - | $ - | $ - | | | |
| 01A30 | PHYSICAL TAKINGS ANALYSIS | $ - | $ - | $ - | | | |
| 01A40 | PRELIMINARY ATTORNEY'S OPINION OF COMPENSABILITY | $ - | $ - | $ - | | | |
| 01A50 | ALL OTHER RE ANALYSES/DOCUMENTS | $ - | $ - | $ - | | | |
| 01B | **ACQUISITIONS** | | | | | | |
| 01B10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01B20 | BY LOCAL SPONSOR (LS) | $ 37,800 | $ 9,450 | $ 47,250 | | | |
| 01B30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01B40 | REVIEW OF LS | $ 10,150 | $ 2,540 | $ 12,690 | | | |
| 01C | **CONDEMNATIONS** | | | | | | |
| 01C10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01C20 | BY LS | $ - | $ - | $ - | | | |
| 01C30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01C40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01D | **INLEASING** | | | | | | |
| 01D10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01D20 | BY LS | $ - | $ - | $ - | | | |
| 01D30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01D40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01E | **APPRAISAL** | | | | | | |
| 01E10 | BY GOVT (IN HOUSE) | $ - | $ - | $ - | | | |
| 01E20 | BY GOVT (CONTRACT) | $ - | $ - | $ - | | | |
| 01E30 | BY LS | $ 10,000 | $ 2,500 | $ 12,500 | | | |
| 01E30 | BY LS | $ - | $ - | $ - | | | |
| 01E40 | BY GOVERNMENT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01E50 | REVIEW OF LS | $ 2,250 | $ 560 | $ 2,810 | | | |
| 01F | **PL 91-646 ASSISTANCE** | | | | | | |
| 01F10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01F20 | BY LS | $ 1,500 | $ 400 | $ 1,900 | | | |
| 01F30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01F40 | REVIEW OF LS | $ 500 | $ 130 | $ 630 | | | |
| 01G | **TEMPORARY PERMITS/LICENSES/RIGHTS-OF-ENTRY** | | | | | | |
| 01G10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01G20 | BY LS | $ 1,500 | $ 400 | $ 1,900 | | | |
| 01G30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01G40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01G50 | OTHER | $ - | $ - | $ - | | | |
| 01G60 | DAMAGE CLAIMS | $ - | $ - | $ - | | | |
| 01H | **AUDITS** | | | | | | |
| 01H10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01H20 | BY LS | $ - | $ - | $ - | | | |
| 01H30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01H40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01J | **ENCROACHMENTS AND TRESPASS** | | | | | | |
| 01J10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01J20 | BY LS | $ - | $ - | $ - | | | |
| 01J30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01J40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01K | **DISPOSALS** | | | | | | |
| 01K10 | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01K20 | BY LS | $ - | $ - | $ - | | | |
| 01K30 | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01K40 | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01L00 | **REAL PROPERTY ACCOUNTABILITY** | | $ - | $ - | | | |
| 01M00 | **PROJECT RELATED ADMINISTRATION** | $ 1,200 | $ 300 | $ 1,500 | | | |
| 01N00 | **FACILITY/UTILITY RELOCATIONS** | $ - | $ - | $ - | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01P00 | **WITHDRAWALS (PUBLIC DOMAIN LAND)** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01Q00 | **RESERVED FOR FUTURE HQUSACE USE** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01R | **REAL ESTATE PAYMENTS** | | | | | | |
| 01R1 | **LAND PAYMENTS** | | | | | | |
| 01R1A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R1B | BY LS | $ 2,630,550 | $ 657,600 | $ 3,288,150 | | | |
| 01R1C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R1D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R2 | **PL 91-646 ASSISTANCE PAYMENTS** | $ - | | | | | |
| 01R2A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R2B | BY LS | $ 3,000 | $ 750 | $ 3,750 | | | |
| 01R2C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R2D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R3 | **DAMAGE PAYMENTS** | $ - | | | | | |
| 01R3A | BY GOVERNMENT | $ - | $ - | $ - | | | |
| 01R3B | BY LS | $ - | $ - | $ - | | | |
| 01R3C | BY GOVT ON BEHALF OF LS | $ - | $ - | $ - | | | |
| 01R3D | REVIEW OF LS | $ - | $ - | $ - | | | |
| 01R9 | **OTHER** | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01S | **DISPOSAL RECEIPTS** | | | | | | |
| 01S10 | DISPOSAL RECEIPTS - REIMBURSEMENTS (CR) - LANDS | $ - | $ - | $ - | | | |
| 01S20 | DISPOSAL RECEIPTS - GENERAL FUND (CR) - LANDS | $ - | $ - | $ - | | | |
| | | | | | | | |
| 01T | **LERRD CREDITING** | $ - | $ - | $ - | | | |
| 01T10 | LAND PAYMENTS | $ - | $ - | $ - | | | |
| 01T20 | ADMINISTRATIVE COSTS | $ - | $ - | $ - | | | |
| 01T30 | PL 91-646 ASSISTANCE | $ - | $ - | $ - | | | |
| 01T40 | ALL OTHER | $ - | $ - | $ - | | | |
| | | | | | | | |
| | **Allocation:** | **$ 2,698,450** | **$ 674,630** | **$ 3,373,080** | | | |
| | | | | | | | |
| | **Total Federal:** | $ 14,100 | $ 3,530 | $ 17,630 | | | |
| | | | | | | | |
| | **Total Non-Federal:** | $ 2,684,350 | $ 671,100 | $ 3,355,450 | | | |
| | | | | | | | |
| | **Total Non-Federal minus Lands:** | $ 50,800 | $ 12,750 | $ 63,550 | | | |

## ASSESSMENT OF NON-FEDERAL SPONSOR'S REAL ESTATE ACQUISITION CAPABILITY

PROJECT NAME: Bayou Meto Project, Lonoke, Jefferson Prairie and Arkansas Counties

SPONSOR: Arkansas Natural Resources Commission, in partnership with Bayou Meto Water Management District which is the legal entity for acquiring LERRDS and performing all necessary relocations for the project.

I. Legal Authority:

a. Does the sponsor have legal authority to acquire and hold title to real property for project purpose?.(Yes/No)
b. Does the sponsor have the power of eminent domain for this project?. . . . . (Yes/No)
c. Does the sponsor have "quick-take" authority for this project? . . . . . (Yes/No)
d. Are any of the lands/interests in land required for the project located outside the sponsor's political boundary?** . . . . . (Yes/No)
e. Are any of the lands/interests in land required for the project owned by an entity whose property the sponsor cannot condemn? . . . . . (Yes/No)

II. Human Resource Requirements:

a. Will the sponsor's in-house staff require training to become familiar with the real estate requirements of Federal projects including P.L. 91-646, as amended? . . . . . (Yes/No)*
b. If the answer to II.a. is "yes", has a reasonable plan been developed to provide such training? . . . . . (Yes/No)
c. Does the sponsor's in-house staff have sufficient real estate acquisition experience to meet its responsibilities for the project? . . . . . (Yes/No)*
d. Is the sponsor's projected in-house staffing level sufficient considering its other work load, if any, and the project schedule? . . . . . .(Yes/No)*
e. Can the sponsor obtain contractor support, if required, in a timely fashion? . . . . . (Yes/No)
f. Will the sponsor likely request USACE assistance in acquiring real estate? . . . . . (Yes/No)
(If "yes", provide description).

III. Other Project Variables:

a. Will the sponsor's staff be located within reasonable proximity to the project site? . . . . . (Yes/No)
b. Has the sponsor approved the project/real estate schedule/milestones? . . . . . ..(Yes/No)

IV. Overall Assessment:

a. Has the sponsor performed satisfactorily on other USACE projects? . . . . . (Yes/No/Not applicable)
b. With regard to this project, the sponsor is anticipated to be: highly capable/fully capable/moderately capable/marginally capable/insufficiently capable. (If sponsor is believed to be "insufficiently capable", provide explanation).

V. Coordination

A Has this assessment been coordinated with the sponsor? . . . . . (Yes/No)
b. Does the sponsor concur with this assessment? . . . . . (Yes/No)
(If "no", provide explanation).

Prepared by:

Bill Mayfield
Realty Specialist

Reviewed and approved by:

Burke S. Torrey
Chief, Real Estate Division

2/18/06
Date

*Sponsor will contract with Real Estate Consultant firm to perform all real estate requirements.
** Sponsor stated that they have the authority to acquire lands outside of their political boundary if it is needed for the project.

BAYOU METO PROJECT
(Suggested Estates)

The suggested estate needed for the pump site construction and mitigation is fee simple acquisition. The suggested fee simple estate would be the standard Fee Excluding Minerals estate described as follows:

Fee Excluding Minerals W/ Restriction On Use Of Surface. Fee Simple title to the land, subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines; excepting and excluding from the taking all oil and gas, in and under said land and all appurtenant rights for the exploration, development, production and removal of said oil and gas, but without the right to enter upon or over the surface of said land for the purpose of drilling and extracting therefrom said oil and gas.

The suggested estate needed for the channel construction and excavation a portion of the project is a non-standard perpetual levee and channel improvement easement and a non-standard perpetual clearing and snagging easement. MVK requests approval of these estates concurrent with approval of this report. The suggested estates are as follows:

Non-Standard Channel and Levee Improvement Easement: A perpetual and assignable right and easement to construct, operate, maintain, repair, patrol, and replace flood protection levees, channel improvement works, including any and all appurtenances thereto, on, over, and across the land, together with all right, title, and interest in and to the timber, buildings, and improvements situated thereon, including the right to clear, cut, fell, remove, and dispose of any and all timber, trees, underbrush, buildings, improvements, and/or other obstructions therefrom; to excavate, dredge, cut away, and remove any or all said land and to place thereon dredge or excavated material; and for such other purposes as may be required in connection with said work of improvement, including, but not limited to, the right to use dredged and excavated material in the construction, operation, maintenance, repair and replacement of flood protection levees, reserving, however, to the owners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads, and pipelines.

**EXHIBIT IV**

Non-Standard Clearing and Snagging Easement: A perpetual and assignable right and easement to operate, and maintain channel clearing and snagging improvements on, over, and across the land, together with all right, title and interest in and to the timber, buildings and improvements situated thereon, including the right to clear, cut, fell, remove, and dispose of any and all timber, trees, underbrush, buildings, improvements, and/or other obstructions therefrom; to deposit on the land debris and other material from clearing and snagging operations; and for such purposes as may be required in connection with said work of improvement; reserving, however, to the owners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads, and pipelines.