

# Sunflower River Reclamation and Revitalization Project

## Primary/Critical - Situation Analysis

Once the "Highway" of the Delta, the Sunflower River has become the victim of the unintended consequences of agricultural conversion, deforestation, agricultural chemical pollution and dewatering. The 250 mile long river experiences an overall water quality lower than anywhere else in the state and water flows are insufficient to sustain a healthy ecosystem. At low water stages it is barely a muddy ditch. At high water (precipitated by heavy rain events) it carries barges of accumulated debris from its banks down river. It has been neglected and over-worked; so much so that it was proclaimed America's "Most Endangered River" in 2003.

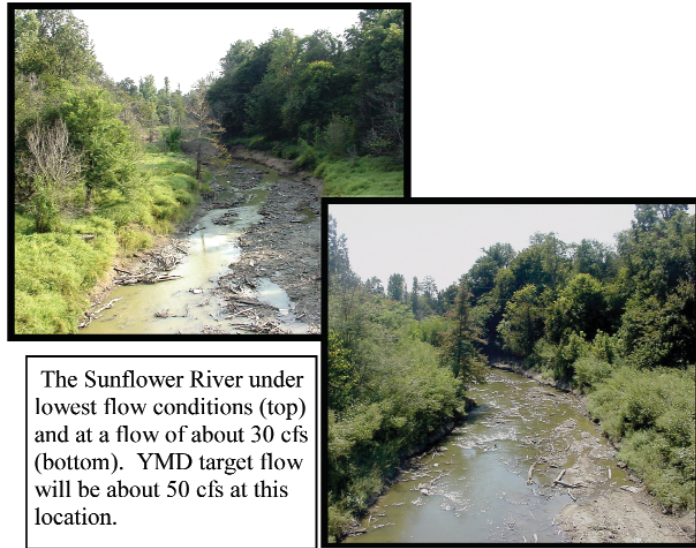
Enhanced flow and elevated water level will allow the river to return to viability. The Sunflower River Reclamation and Revitalization project represents a major step in restoring the health of the river by improving hydrologic and geomorphic integrity from Clarksdale north to its origin, preserving natural habitat and providing public access for compatible recreational activities.

The project represents only positive downstream impact by improving flow rate.

The primary component of the project is the construction of a weir South of Highway 161 in Clarksdale. The purpose is to raise the water level through public areas by approximately five feet, increasing its width by approximately fifteen feet and increasing flow to a healthy level. Water sources have been identified and developed (including dry period back-up sources) and determined to be sufficient for flow and sustainability.

## Secondary/Critical - Situation Analysis

The economy of the Delta has been traditionally based on agriculture and manufacturing. This model has been failing for considerable time and a new economic engine must be identified and pursued. Clarksdale has identified and is pursuing cultural tourism as a viable alternative. The revitalization of the Sunflower River can play a major role in this effort as well, impacting Clarksdale and the North Delta through its potential for compatible recreational and commercial activity. The San Antonio River Walk and Oklahoma River project in Oklahoma City are prime examples of the economic impact of revitalization of rivers.

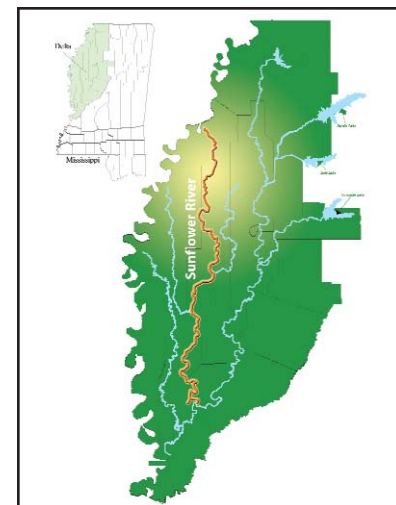


The Sunflower River under lowest flow conditions (top) and at a flow of about 30 cfs (bottom). YMD target flow will be about 50 cfs at this location.

Included in the Sunflower River Reclamation and Revitalization project are the shaping of banks through the public areas, development of walking trails, plantings of native botanicals, control of exotic and invasive species, stocking of the river with appropriate species, ramps for river access and observation decks and park areas for public enjoyment. Focus for this activity is centered in Clarksdale, specifically from Highway 161 north, through the public areas of downtown. This is also the only area along the Sunflower River to "set-in" as the rest of the river has extremely steep banks, especially south of Clarksdale.

Benefits precipitous of the revitalization of the river are expected in the development of recreational and retail businesses around the developed water amenity. It is anticipated that these will include canoe rentals, tourism related retail and restaurants along Sunflower Avenue above the river in downtown Clarksdale.

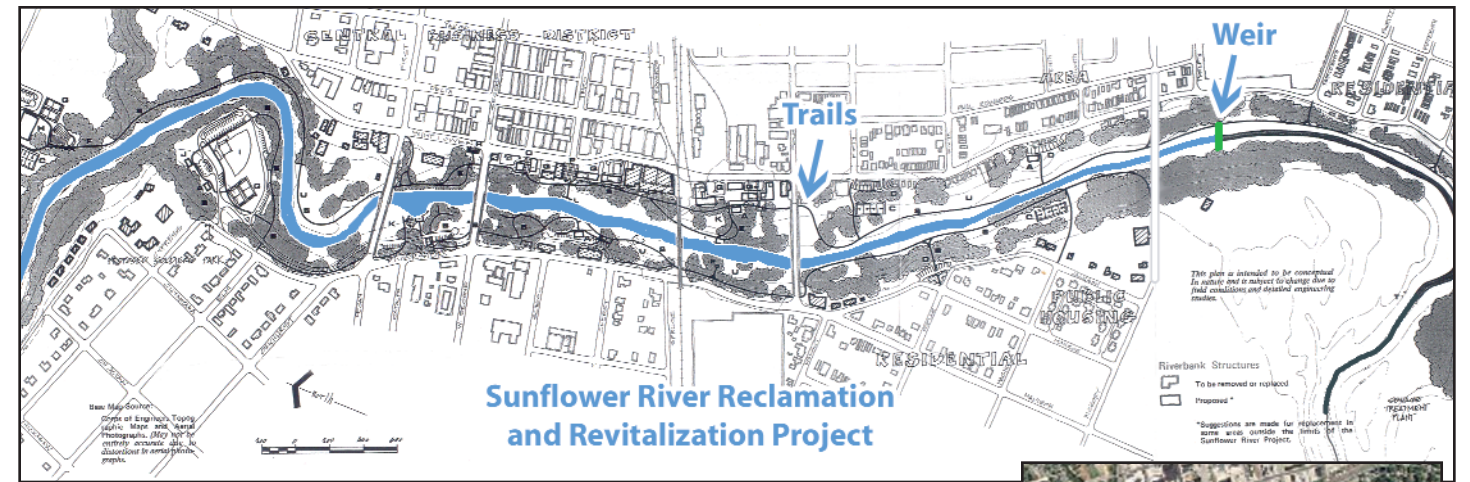
Total estimated cost of the project is \$914,500, supplemented by the participation of the Coahoma County Board of Supervisors, City of Clarksdale, Clarksdale Public Utilities, the Yazoo Mississippi Delta Levee Board, the Yazoo Mississippi Delta Joint Water Management District, the Army Corps of Engineers, the Mississippi Department of Wildlife, Fisheries and Parks and interested private citizens.



**Physical Description:** The Sunflower River originates in the bayous and lakes of Northern Coahoma County and meanders South some 250 miles through the Yazoo/Mississippi Delta paralleling the Mississippi River on the West and the Yazoo on the East, (with which it confluences 10 miles above Vicksburg). A small but dynamic river, once forested, now mostly bordered by fields, the Sunflower is a rich habitat for species native to the region, including black bear and panther. Its drainage includes most or all of Coahoma, Bolivar, Sunflower, Washington, Sharkey & Issaquena Counties ... 3,689 square miles, inhabited by 169,150 people. Its tributaries include The

Little Sunflower, the Bogue Phalia, Mound Bayou, Indian Bayou, the Quiver River, Silver Creek, Deer Creek, Rolling Fork, Steele Bayou and the Hushpuckena River.

Forests along the Sunflower River constitute the largest bottomland hardwood forests in the National Forest system (they also produce the highest carbon-sequestration of any forests in North America!), and its banks are home to every creature winged, webbed or otherwise, found native to the Mississippi Delta. Many of the species are identified as representing the greatest conservation need associated with the Mississippi Alluvial Plan.



In preparation for construction of the weir, excavation and spreading of dirt to provide a 3 to 1 slope on the banks through the public areas will be accomplished. Final engineering and construction of the weir can occur swiftly. It is planned to construct the weir on the Sunflower River South of State Street. The weir is being designed to maintain a water level 5 feet above the current average which will increase channel width by 15-20 ft.

The water source providing flow is Long Lake, north of Clarksdale with back-up for drought periods provided by 11 existing wells which draw from the river's natural source, the Mississippi River Valley Alluvial Aquifer. Channel clearing and well testing have been on-going for a number of years and many maintenance functions have been automated.

Considerable work has been accomplished in clearing banks through the public areas by removal of excess growth and maintaining appropriate foliage and ground cover.

The completion of the project will result in the restoration of a healthy flow in the river and will support Mississippi's Comprehensive Wildlife Conservation Strategy by providing a more accommodating habitat for species of greatest conservation need, indigenous to its waters.

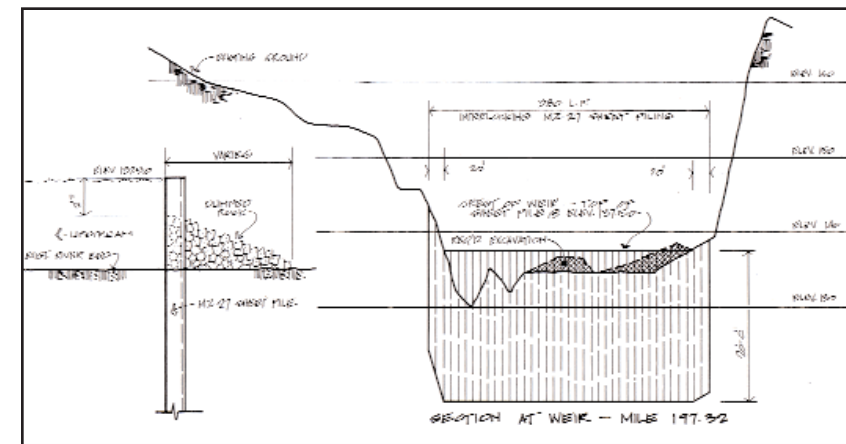
Plans are being laid and implemented to capitalize on the new water amenity that will be created in public areas. Stocking the river with appropriate species will enhance public fishing, ramps will provide access for non-motorized boating activities and parks and walking/biking trails will be incorporated to maximize compatible public use. For those not participating directly in riparian activities, observation decks are planned along with the recruitment of restaurants and cafes.

The new amenity will also serve as leverage to help mitigate a deteriorating urban environment in downtown Clarksdale, by lending impetus for commercial property owners, particularly along Sunflower Avenue, to upgrade their buildings in preparation for new businesses that are anticipated to support the amenity.

Besides providing recreation for local citizens, the completed amenity will assist in an area objective of maximizing the potential of a cultural tourism based economy by providing another reason for visitors to spend more time in the area. More time spent means more money spent, means new jobs, means an overall enhanced economy. It has happened in other places with similar projects and it will happen in Coahoma County.

Planning on the Sunflower River Weir Project has been continuing for decades. Work on the preliminaries, including channel clearing, well and pump construction, etc., has been accomplished over the past several years. Everything is now ready to proceed with the actual construction of the project and its various components.

It is rare to have a project ready to launch that can solve so many problems with such little additional effort and expense. It's time to get this done.



## Sunflower River Reclamation and Revitalization Project

While the primary objective of the Sunflower River Reclamation and Revitalization project involves mitigating the serious problems of the Sunflower River and its attendant riparian environment, the project will also create a new water based amenity that will support public recreational use and provide another attraction for visitors to the Delta. In order to capitalize on the completed project, access to river amenities from the downtown/entertainment area of Clarksdale is critical. This area is on the East side of the river. Multiple locations for access have been identified including Martin Luther King Park, Sunflower Landing, and the bridges at Second and First Streets. These are possible locations for three observation decks and picnic areas included in project estimates.

Access to launch ramps and sites will require the construction of roads from nearby streets and cost estimates are included for these projects.

An extensive trail system is planned for the area and will eventually include a walking trail through historic areas and sites and will link with the river-side trail system. This will create a large network of hiking and biking trails in Clarksdale. The hiking trails proposed as a part of the river project are primarily for public exercise and enjoyment of the river area, but also represent the initial stages of the network through downtown.

### Project Completion Estimates:

Construction of weir	\$145,000
Dirt Work 46,500 yds @ 3.00	\$139,500
Ramps, Piers and Parking @ 55,000 ea.	
<i>Soldier's Field</i>	
<i>Sunflower Landing</i>	
<i>Martin Luther King Park</i>	\$165,000
Drives from access road to ramps	
<i>Soldier's Field</i>	
<i>Sunflower Landing</i>	
<i>Martin Luther King Park</i>	\$145,000
Observation Decks and Access	\$ 75,000
Walking/Biking Trails	\$245,000
Total Project Estimate	\$914,500

*Estimates based upon recent similar projects*

The Sunflower River Reclamation and Revitalization Project is the collaborative vision of the following entities which have been active in the planning and have a commitment to its completion.

#### **Yazoo Mississippi Delta Joint Water Management District**

P. O. Box 129  
384B Stoneville Road  
Stoneville, MS 38776

#### **Yazoo Mississippi Delta Levee Board**

P. O. Box 610  
140 Delta Avenue  
Clarksdale, MS 38614

#### **Coahoma County Board of Supervisors**

P. O. Box 579  
Clarksdale, MS 38614

#### **City of Clarksdale**

121 Sunflower  
Clarksdale, MS 38614

#### **Clarksdale Public Utilities**

416 3rd  
Clarksdale, MS 38614

#### **Mississippi Department of Wildlife, Fisheries and Parks**

District 2  
831 CR 36  
P. O. Box 100  
Enid, MS 38927

#### **Quapaw Canoe Company**

John Ruskey  
291 Sunflower Avenue  
Clarksdale, MS 38614

#### **Delta Regional Authority**

236 Sharkey Avenue  
Clarksdale, MS 38614

#### **Clarksdale Revitalization, Inc**

300 Issaquena  
Clarksdale, MS 38614

## COMPREHENSIVE REPORT

# SUNFLOWER RIVER RECLAMATION AND REVITALIZATION PROJECT

REVITALIZING AN HISTORIC RIVER

MITIGATING ENVIRONMENTAL DISTRESS

PROVIDING COMPATIBLE PUBLIC RECREATION

PROMOTING TOURISM

FACILITATING ECONOMIC REVITALIZATION