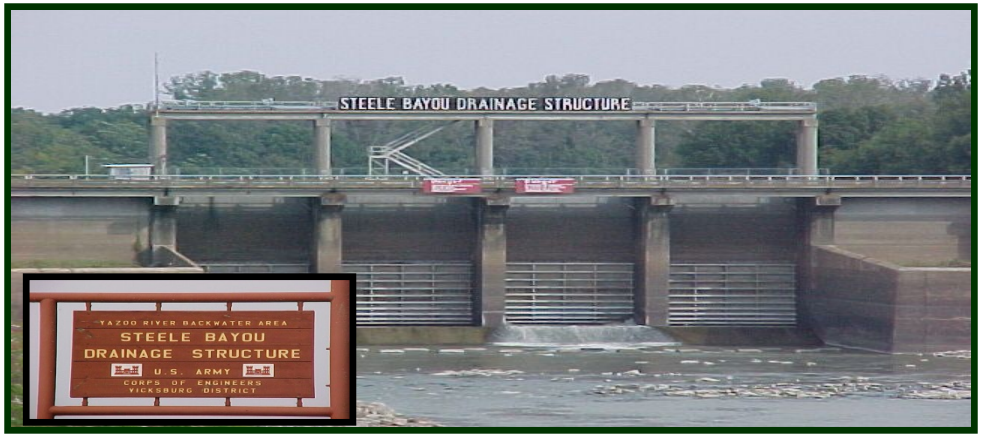
The Yazoo Backwater Project

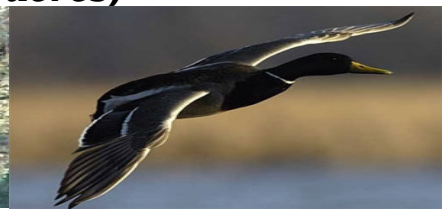


Balancing Economics …

(Flood Control Benefits with a 14,000 cfs Pump)

…with the Environment!

(Environmental Benefits with the Reforestation of up to 55,600 acres)



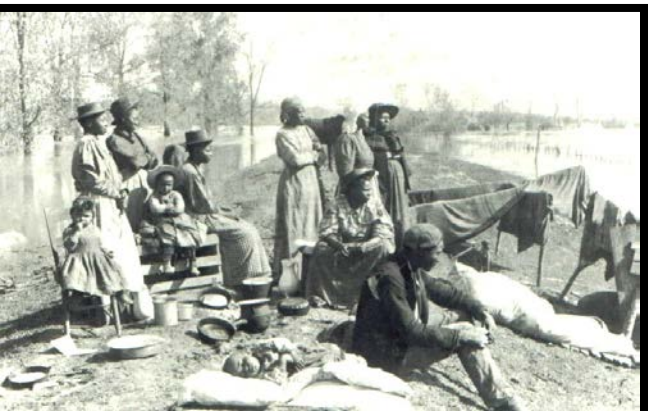
A Balanced Project that is good for People, Trees, Wildlife & Fish!

The MS River Drainage Basin includes 41% of the continental United States. This is water from parts of 31 States and 2 Provinces of Canada.

The Great Flood of 1927

- 246+ Deaths
- 700,000 People displaced
- 325,000 Refugees
- 162,000 Homes Inundated
- 16.6 Million Acres Flooded
- 26,000 Square Miles Flooded
- River remained above Flood Stage for 153 days
- Lost ½ of the Wildlife Population
- Industry & Transportation paralyzed
- $1 Billion in Property Damages when the Federal Budget was $3 Billion

“The Greatest Peacetime Disaster in our History” – Herbert Hoover

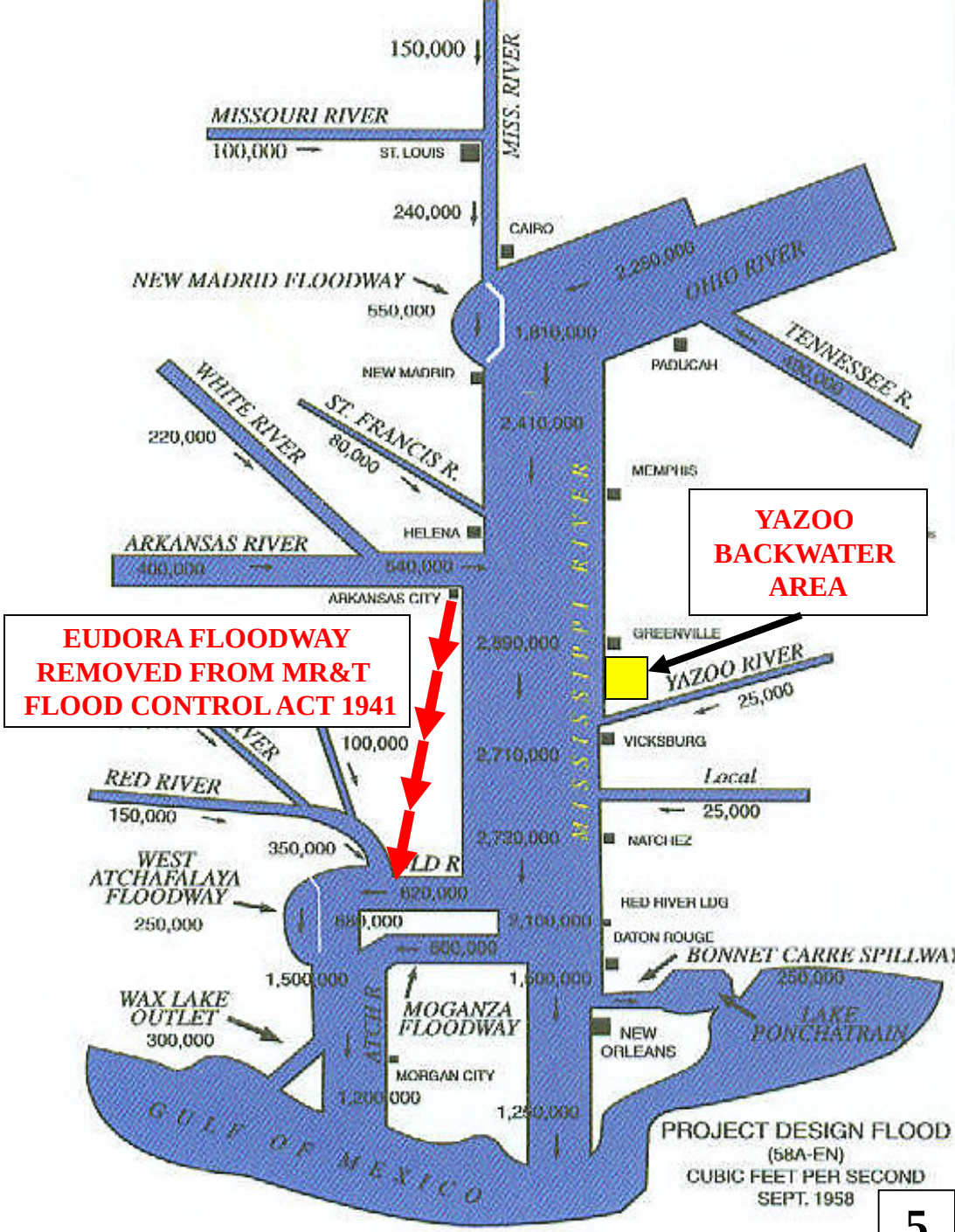


MR&T Project Features

The 1927 Flood awakened the Nation's conscience to the need for a comprehensive program to control the MS River. From destruction and ruin came the Flood Control Act of 1928 which authorized the Mississippi River & Tributaries Project (MR&T) - the nation's first comprehensive flood control system.

Yazoo Backwater Project

The Flood Control Act of 1941 authorized the Yazoo Backwater Project to provide protection from higher stages on the MS River resulting from the removal of the Eudora Floodway Project in Arkansas and Louisiana from the MR&T Project. The YBW Project consisted of drainage structures, levees and pumps to remove the rainwater out of the Delta during a highwater event on the MS River.



Federal Pumping Plants around the Area

This is not a unique situation!

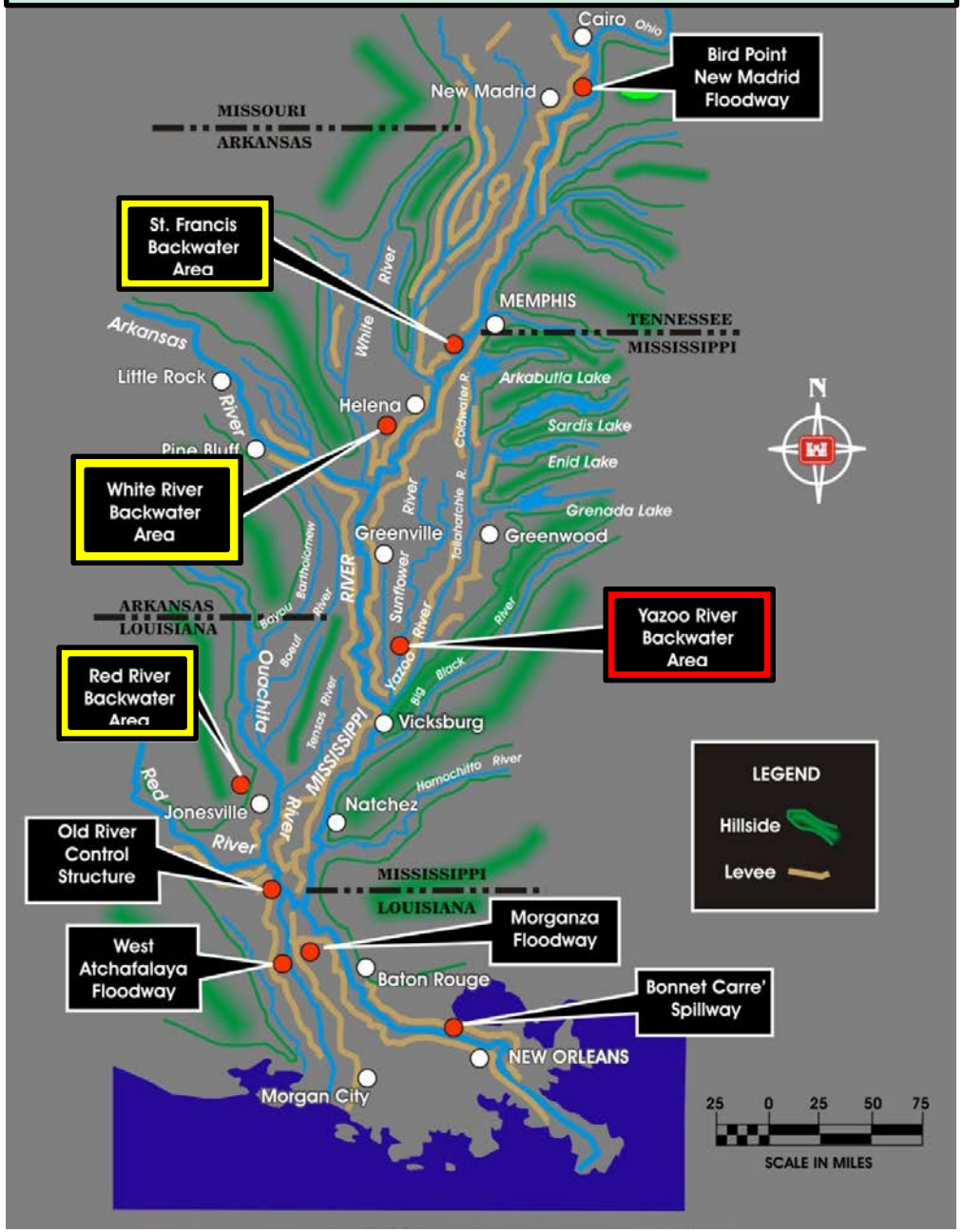
STATE	NAME	BASIN sq. mi.	YEAR COMPLETED
ARK	**Huxtable**	**2,013**	**1977 - 12,200cfs**
ARK	Graham-Burke	227	1964
ARK	Lake Chicot	350	1987 – **6,500 cfs**
LA	River Styxx	37	1994
LA	Fool River	44	2001
LA	Haha Bayou	113	1964
LA	Tensas-Cocodrie	582	1986 – **4,000 cfs**
MS	**Yazoo Backwater**	**4,093**	**??? - 14,000cfs**

Everybody has their Pump ……
except the Mississippi South Delta!

Facts:

1. There are **22** Federally funded Pumps within a 200 mile radius of the Backwater Area!
2. The YBW Pumps will be the **next to smallest** when capacity is compared to drainage basin!

Backwater Areas of the MR&T Project



There are 4 Backwater Areas along the MS River

These Backwater Levees have Drainage Structures to allow water to pass through the levee during low-water and they can be shut during high water times to keep the MS River from backing into the basin.

During high water times when the gates are closed – any rainfall that occurs in the basin gets backed up behind the closed gates. A pump is required to remove the rainwater.

3 Backwater Areas have an adequate pump in place.

Unfortunately the Yazoo Backwater Area does not have a pump in place!

Pumping Plants to evacuate stormwater

(1)	St. Francis – AR & MO	Huxtable built in 1977
(2)	White River - AR	Graham-Burke built in 1964
(3)	Red River -LA	Tensas-Cocodrie built in 1986
(4)	***Yazoo River - MS***	***NONE***

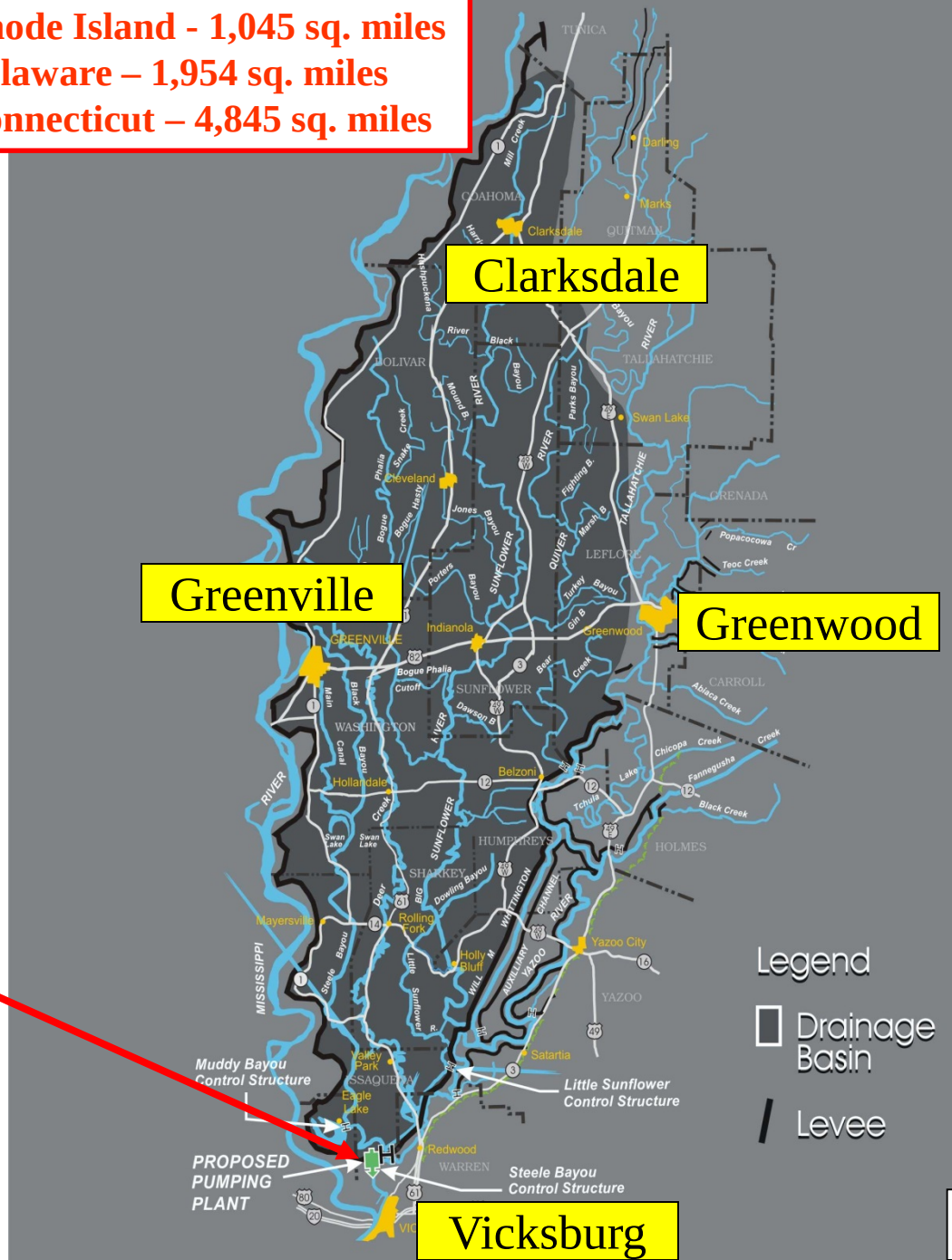
Drainage Basin to the Steele Bayou Structure

Rhode Island - 1,045 sq. miles
Delaware – 1,954 sq. miles
Connecticut – 4,845 sq. miles

All the rainfall in the MS Delta shown on this map must exit through the Steele Bayou Structure to enter into the Yazoo River to the MS River.

4,093 square miles
(2.62 Million Acres)

Steele Bayou Drainage Structure



Chronology – Impacts of Public Policy

1928 FCA (Flood Control Act)

Congress passes the 1st comprehensive Flood Control Project.

The "MR&T Project" consists of Levees, Floodways & Cut-offs.

1936 FCA

Congress extends Federal responsibility to sub-basins (i.e. the Yazoo Basin).

1941 FCA

Arkansas abandons the Eudora Floodway & Mississippi realizes this will flood the MS South Delta.

Congress authorizes the Yazoo Backwater Project – Drainage Structures, Backwater Levees & Pumps.

1960's

The Corps starts constructing the Drainage Structures & Backwater Levees.

1973 Flood

1,000,000 acres flooded in the MS South Delta (last MS River Flood was in 1950).

Rolling Fork, MS

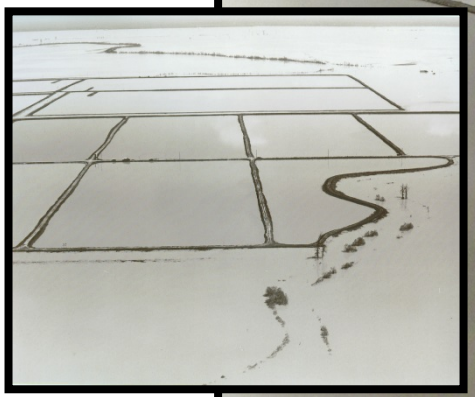
Flooded Houses

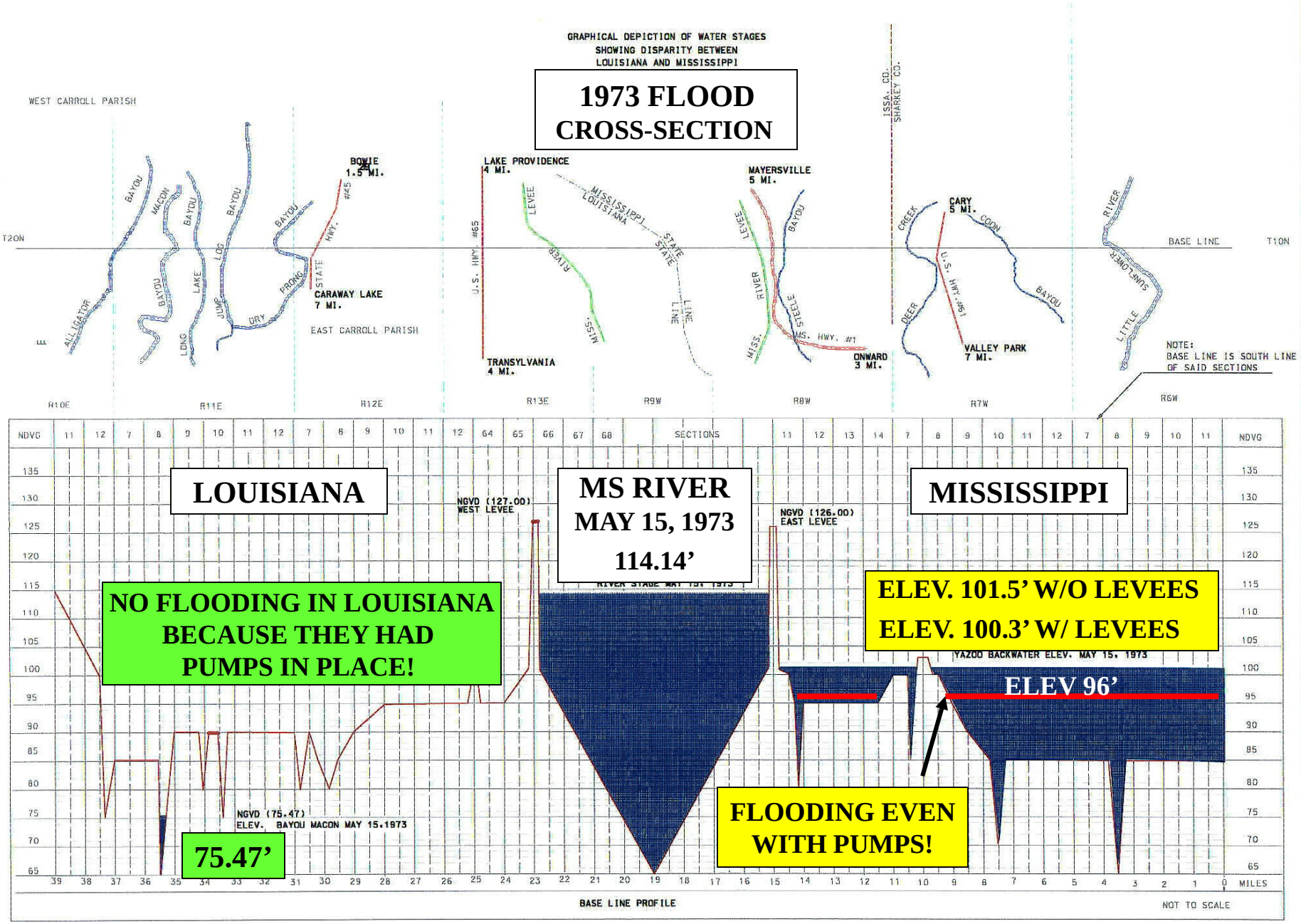
1973 Backwater Flood
South Delta Area

100 Year Event

Hwy 16 over
Little Sunflower River

Hwy 14 over
Big Sunflower River




GRAPHICAL DEPICTION OF WATER STAGES
SHOWING DISPARITY BETWEEN
LOUISIANA AND MISSISSIPPI
1973 FLOOD
CROSS-SECTION
WEST CARROLL PARISH
EAST CARROLL PARISH
BOWIE
1.5 MI.
CARAWAY LAKE
7 MI.
LAKE PROVIDENCE
4 MI.
TRANSYLVANIA
4 MI.
MAYERSVILLE
5 MI.
ONWARD
3 MI.
CARY
5 MI.
VALLEY PARK
7 MI.
ISSA. CO.
SHARKEY CO.
BASE LINE
T20N
T1ON
R10E
R11E
R12E
R13E
R9W
R8W
R7W
R6W
NOTE:
BASE LINE IS SOUTH LINE
OF SAID SECTIONS
LOUISIANA
MS RIVER
MAY 15, 1973
114.14'
MISSISSIPPI
NGVD (127.00)
WEST LEVEE
NGVD (126.00)
EAST LEVEE
NO FLOODING IN LOUISIANA
BECAUSE THEY HAD
PUMPS IN PLACE!
ELEV. 101.5' W/O LEVEES
ELEV. 100.3' W/ LEVEES
YAZOO BACKWATER ELEV. MAY 15, 1973
ELEV 96'
FLOODING EVEN
WITH PUMPS!
NGVD (75.47)
ELEV. BAYOU MACON MAY 15,1973
75.47'
SECTIONS
MILES
BASE LINE PROFILE
NOT TO SCALE

Chronology – Impacts of Public Policy

1978

The Drainage Structures and Backwater Levees are completed.

WRDA of 1986 – Implemented Cost Sharing on Projects

March 1986

Yazoo Backwater Pumps awarded to contract.

Senate passes WRDA with date of enactment to be at conference (Oct. 26, 1986).

May 1986

On May 5, 1986 dirt is moved on the Yazoo Backwater Pump Project.

On May 15, 1986 House passes WRDA with date of enactment (Oct. 26, 1986).

October 1986

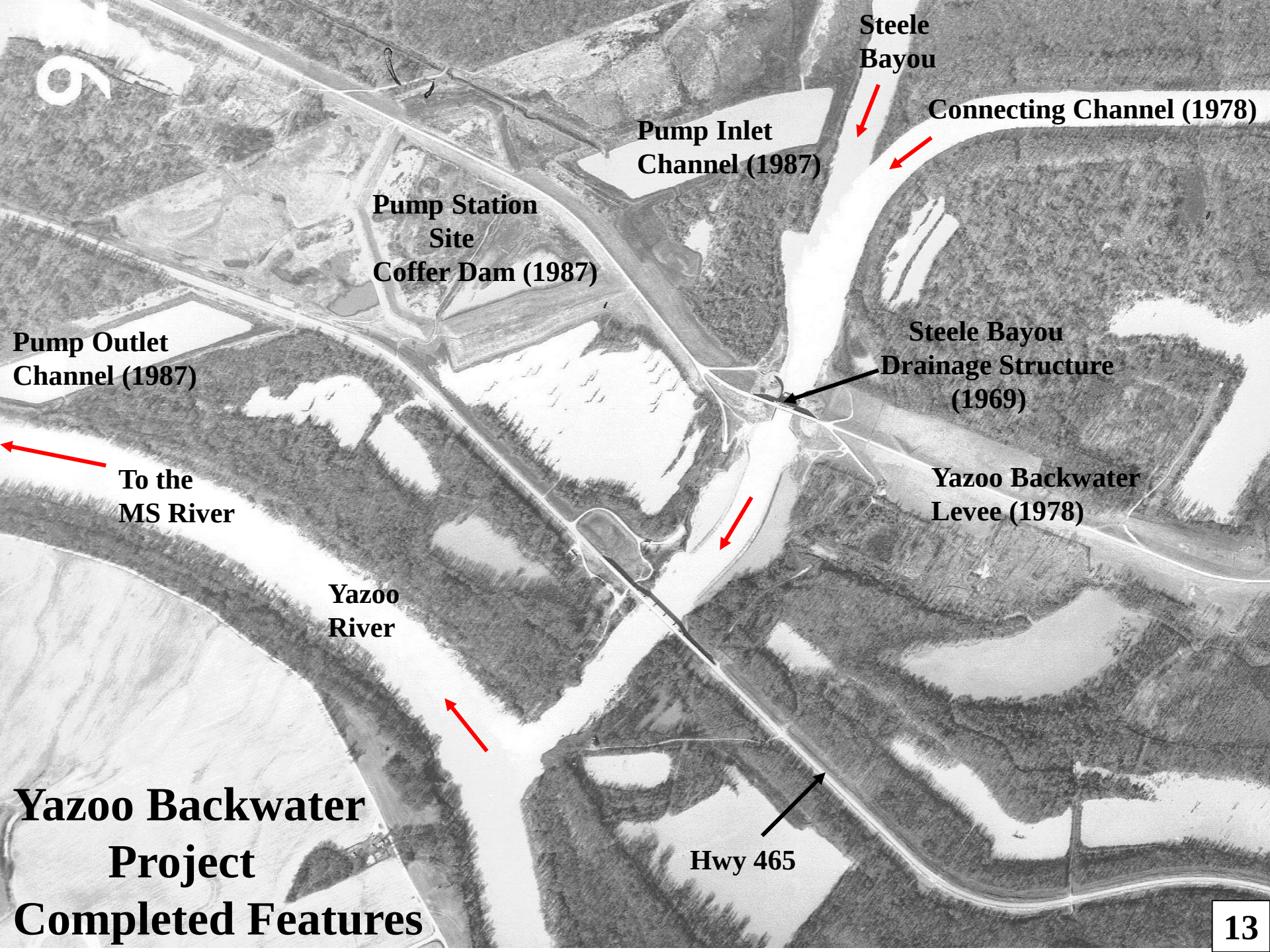
Oct. 26, 1986 Senate-House Conference agreement passed.

Set grandfather date of April 30, 1986 – affecting 1 project in the USA – the Yazoo Backwater Pumps.

WRDA of 1996

Congress sets the date of award as the date the project is started.

This re-stored 100% Federal responsibility to the Pumps.



Yazoo Backwater Project Completed Features

Steele Bayou Drainage Structure

Completed in 1969

All the components of the Yazoo Backwater Project are in place, except for the Pumps. The YBW Project works flawlessly during MS River high water events, as long as there is no rainfall in the Delta. The Yazoo Backwater Levee and Drainage Structures keep the MS River from backing up the Yazoo River and flooding the South Delta. If any rainfall occurs in the Delta while the gates are closed on the Structure, the water will flow down to the gates and stop and begin to back-up into the South Delta. This water will stay here until the MS River is low enough to open the gates on the Structures. The pumps will allow the water to be pumped over the levee while the gates are close

Consensus Group Formed *by MS Levee Board in 1998*

- Corps of Engineers
- County Officials
- Delta Council
- Delta Wildlife & Forestry, Inc.
- Ducks Unlimited
- Environmental Protection Agency
- MS Dept. of Environmental Quality
- MS Dept. of Wildlife, Fisheries & Parks
- Mississippi Levee Board
- NRCS-USDA
- South Delta Flood Control Committee
- U.S. Fish and Wildlife
- U.S. Forest Service

In Search of a Functional Solution:

- Operating Plan for gates/pump managed for multiple purposes
- Reforestation Easement preferred over fee simple acquisition
  - *Willing seller provision*
  - *Protect local tax base*
- Opportunity to restore wetland functions to lands below 2-yr flood plain

Withdrew from Consensus after First Meeting

- Audubon Society
- Gulf Restoration Network
- Mississippi Wildlife Federation
- National Wildlife Federation
- Sierra Club

After 11 months & 50 hours of meetings, the proponents compromised and were rewarded with deceit, filibuster and violation of agreements.

Alternatives Under Review

Non-structural
No Pump – Trees

Pump Only

Combination Plans
Pump & Reforestation

PLAN	PUMP?	ON/ OFF ELEV.		REFOREST EASEMENT	MAINTAIN LOW-WATER?
1	NO		**"DO NOTHING"**		NO
2	NO		**"NO PUMP"**		NO
2a	NO		**"NO PUMP"**		NO
2b	NO		**"Ring Levees"**		NO
2c	NO		**Shabman & Zepp**		NO
3	YES	80' growing 85' winter	**"1986 PLAN"** **Full Structural**	Compensatory Mitigation	YES
4	YES	85'		37,200 ac.	YES
5	YES	87'	1-YEAR FLOOD EVENT	55,600 ac.	YES
6	YES	88.5'	JURISDICTIONAL WETLANDS	81,400 ac.	YES
7	YES	91'	2-YEAR FLOOD EVENT	124,400 ac.	YES

YAZOO BACKWATER PROJECT

COMPROMISES

BY THE RESIDENTS OF THE SOUTH DELTA

	Original Project (1982)	Recommended Plan (2007)
Pump Capacity	17,500 cfs (25,000 cfs NED Plan)	14,000 cfs
On/Off (elevation)	80’	87’ (1 year flood plain)
Acres Flooded when Pumps turn on	19,400 acres	216,200 acres
Reforested Land	Fee purchase Mitigation of 6,500 acres	Non-structural feature - Reforestation Easements of 55,600 acres
Protecting Local County Tax Base	No	Yes

Yazoo Backwater Project
WHERE HAVE WE BEEN?

1927	1927 Flood - 16.6 million acres flooded, 246 lives lost, 700,000 displaced.
1928	Flood Control Act of 1928
	Congress authorized - levees, floodways, cutoffs, and channel improvements
1936	Flood Control Act of 1936
	Congress extends Federal responsibility to sub-basins - i.e. Yazoo Basin
1941	Arkansas abandons Eudora Floodway - Congress authorizes the Yazoo Backwater Project to offset 6'- 8' higher stages on MS River at Vicksburg
1973	1973 Flood - 1 million acres flooded for more than 40 days
	Post flood evaluation: "cutoffs" 4'-6' less efficient than projected
1978	YBW Levee, Connecting Channel, and drainage structures completed
1982	White House & OMB administratively order reduced pump size to 10,000 cfs
1986	Pump contract awarded – Completed Coffer Dam & Inlet & Outlet Channels
	WRDA 1986 - Congress strips full federal responsibility - local cost-sharing
1996	WRDA 1996 - Congress restores full federal responsibility
1997	Corps facilitates workshops with cooperating agencies review of YBW Project
1998	MS Levee Board facilitates Consensus meetings
2000	Draft Report for the Yazoo Backwater Project released
2007	Final Report for the Yazoo Backwater Project released
2008	EPA vetoes the Yazoo Backwater Project