There are two (2) Levee Boards in the Mississippi Delta.

The MS Levee Board (shown in green) was established in 1865 as the first act of the MS Legislature following the Civil War. It is headquartered in Greenville, MS.

The YMD Levee Board (shown in light green) was established in 1884 following the flood of 1882. It is headquartered in Clarksdale, MS.
2019 Backwater Flood

Why this happened:

*Historic Rainfall in MS River Valley*
*Historic long duration MS River Flooding*

**Historic 2019 Backwater Flood:**

- 548,000 acres Flooded
- 231,000 acres of Crop Land Flooded
- 686 Homes Flooded
- 3 Highways Flooded
- 2 People died

**Economic Devastation**

**Environmental Devastation**

**The Solution – Finish the Pumps**

**YBW Project – Accomplishments of the Balanced Project**

**EPA Veto in 2008**

**Backwater Floods since the 2008 EPA Veto**

**Recent changes in EPA Leadership**

**Corps & EPA working together to find a solution**
Rainfall for 2019 was over 20” above average!

The wettest 12 months in history!
April 2018 – March 2019
(Since 1895)
Ohio Valley, Midwest & Northeast
2019 RECORD SET ON THE MISSISSIPPI RIVER

Record Precipitation - from April 2018 until March 2019 - record precipitation for any 12 month period since 1895.
Cairo - a record 156 consecutive days above Flood Stage breaking the 1973 record of 97 days.
Greenville - a record 154 consecutive days above Flood Stage breaking the 1927 record of 115 days.
Natchez - a record 215 consecutive days above Flood Stage breaking the 1973 record of 90 days.
Red River Landing - a record 227 consecutive days above Flood Stage breaking the 1927 record of 152 days.
Baton Rouge - a record 212 consecutive days above Flood Stage breaking the 1927 record of 135 days.
Bonnet Carre Spillway - first time ever that it opened twice in one year.
Tropical Storm Gordon
Hurricane Florence
Hurricane Michael

2018 & 2019 Record High Stages
Sept., Oct. & Nov., 2018
Feb., Mar. & April, 2019
June & July, 2019

August, 2018
the River was at “Average”

Record 154 Consecutive Days above Flood Stage!

Phase I (48.0)
Phase II (55.0)

2018 & 2019 Record High Stages
Drainage Basin to the Steele Bayou Structure

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)

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

Steele Bayou Drainage Structure
May 2019 Backwater Flood

May 2019 BACKWATER at 98.2’
- 231,000 acres of Cropland Flooded
- 317,000 acres of Trees Flooded
- 548,000 acres Total Flooded

HISTORIC BACKWATER FLOODS SINCE 1978
1. 2019  98.2’
2. 1979  96.5’
3. 1983  95.8’
4. 2018  95.2’

The YBW Levee was completed in 1978. 1973 got to 101.5’

May 2019 BACKWATER at 98.2’
- 231,000 acres of Cropland Flooded
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- 548,000 acres Total Flooded

HISTORIC BACKWATER FLOODS SINCE 1978
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3. 1983  95.8’
4. 2018  95.2’

The YBW Levee was completed in 1978. 1973 got to 101.5’
Floweree, MS
Backwater at 96.8’ on March 19, 2019
South of Valley Park, MS
Backwater at 97.2’ on March 29, 2019

231,000 acres of Crop Land Flooded

Crop Land underwater
Homes flooded

Hwy 61
Crop Land underwater

Backwater overtopping Eagle Lake Shore Road

Eagle Lake

Top Bank of Eagle Lake Eroding & scouring

Crop Land underwater

Eagle Lake

Eagle Lake, MS
Backwater at 97.0’ on March 22, 2019
Eagle Lake, MS
Backwater at 98.0’ on May 19, 2019
May 20, 2019
Backwater at 98.0’
Eagle Lake at 97.2’

May 21, 2019 – Backwater at 98.0’
Eagle Lake at 98.0’
Eagle Lake, MS
Backwater at 98.0’ on May 21, 2019
Eagle Lake, MS
Backwater at 98.2’ on May 24, 2019

686 Homes Flooded
Home flooded on Eagle Lake
Interior of Homes flooded by Backwater

Black Mold
Clean-up Process for the Interior of Homes flooded by Backwater
Cemeteries flooded by Backwater

FLOATING CASKET REMOVED FROM FLOODWATER July 2019
Deer Population seeking higher ground

DEER TRAPPED ON THE BACKWATER LEVEE
Deer Population
Worn-out by the long duration
Backwater Flood
DEER FOUND ON A SMALL PATCH OF LAND SURROUNDED BY FLOODWATER JULY 2019

Deer Population Decimated by the long duration Backwater Flood

503 Dead Deer on the Levee
Rabbit stranded on a log
Small animal population
Decimated by the long duration
Backwater Flood

Bears stranded in a tree

BEAR KILLED BY AN AUTOMOBILE WHILE ECSAPING THE FLOODWATER
Turkeys seeking higher ground
Turkey population
Decimated by the long duration
Backwater Flood
Hogs & Alligators seeking higher elevation
Raccoons ate all the Turkey Eggs, Alligator Eggs & Turtles Eggs. We have lost an entire generation of Wildlife.
Lost all small tree regeneration on 317,000 acres of Woods.
Environmental Disaster!

LEAKING DIESEL
On June 13, 2019 LaTamela Taylor (13 weeks pregnant) and Darron Wilson drown when their car slipped off in the Backwater near Holly Bluff, MS. Their car was found 10' underwater.

These 2 people died because of the EPA decision to veto the Pumps in 2008.
Aerial Photos taken March 29, 2019

Mainline Levee in Louisiana
Versus
Mainline Levee in Mississippi

Louisiana – Dry Crop Land

Question:
Why is MS flooding and LA not?

Answer:
Louisiana has Pumps!
Mississippi does not have a Pump!!
Public Meetings in Backwater Area

- **Eagle Lake, MS - Public Meeting** – February 23, 2019
- **Valley Park, MS - Public Meeting** – March 7, 2019
- **Holly Bluff, MS - Public Meeting** – March 12, 2019
- **Rolling Fork, MS - Public Meeting** – March 18, 2019
What is the Solution to stop Backwater Flooding?

Finish building the Yazoo Backwater Pumps!
Yazoo Backwater Pumps

Had the Pumps been in place the Backwater would have crested at 92.5' instead of 98.2' (5.7' lower crest). At 92.5' 354,000 total acres would be flooded instead of 548,000 acres (194,000 less acres flooded). At 92.5' there are 109,000 acres of Crop Land flooded (122,000 less acres of Crop Land flooded). At 92.5' no homes would have flooded and no highways would have overtopped.
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!
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**

2. White River - AR   Graham-Burke built in 1964
3. Red River -LA   Tensas-Cocodrie built in 1986
4. **Yazoo River - MS**   **NONE**

There are 22 Federally Funded Pumping Plants within a 200 mile radius of the YBW Pump Site that are in operation today!
# YAZOO BACKWATER PROJECT
## COMPROMISES
### BY THE RESIDENTS OF THE SOUTH DELTA

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Pump Capacity</strong></td>
<td>17,500 cfs</td>
<td>14,000 cfs (½ the Pumping Capacity)</td>
</tr>
<tr>
<td></td>
<td>(25,000 cfs NED Plan)</td>
<td></td>
</tr>
<tr>
<td><strong>On/Off (elevation)</strong></td>
<td>80’</td>
<td>87’ (1 year flood plain)</td>
</tr>
<tr>
<td><strong>Acres Flooded when Pumps turn on</strong></td>
<td>19,400 acres</td>
<td>216,200 acres (11x more Flooding)</td>
</tr>
<tr>
<td><strong>Reforested Land</strong></td>
<td>Fee purchase Mitigation of 6,500 acres</td>
<td>Reforestation Easements of 55,600 acres (9x more Mitigation)</td>
</tr>
<tr>
<td><strong>Protecting Local County Tax Base</strong></td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
ACCOMPLISHMENTS OF THE
YAZOO BACKWATER PROJECT RECOMMENDED PLAN

ENVIRONMENTAL BENEFITS – Reforestation of 55,600 acres
1. 19.2% Increase in Wetlands Resources.
2. 11.2% Increase in Terrestrial Resources.
3. 34.5% Increase in Aquatic Resources.
4. 52.8% Increase in Waterfowl (Duck Habitat) Resources.
5. Water Quality will improve with reforestation – Reduces Sediment & Nutrients.
6. Water Quality will improve by reducing the duration of flooding on the forest land thus reducing the Mercury content in the water.
7. Endangered Species – LA Black Bear & Pondberry – have been addressed, in fact reforestation will provide additional habitat.
9. Protects the 1-year Aquatic Habitat.
11. Alleviates Forest Fragmentation.
12. Improves Recreation Opportunities in Area.
13. Provides for Positive Socio-Economic Benefits.

ECONOMIC BENEFITS – 14,000 cfs Pump
14. Lowers the 100-year Flood by 4.5’.
15. Reduces Urban and Rural Structural Damages.
16. Provides Benefits to remaining Agricultural Lands.
17. Duration & Frequency of Floods will be greatly reduced.

The YBW Project achieves both Economic and Environmental Benefits!

The Corps released the YBW Project Final Report in November 2007
EPA attempting to use their veto authority found in Section 404(c) of the CWA

EPA poised to veto pumps

ROLLING FORK—It took the Vickburg District of the U.S. Army Corps of Engineers seven years and more than 10,000 pieces of paper to produce its proposed Yazoo Backwater Project. Now it is being given less than two weeks to show why the Environmental Protection Agency shouldn't veto it.

Perhaps the most controversial single flood control project in the country, the Yazoo Backwater Project, also known as the Yazoo Pumps, has for years drawn the staunch opposition of much of the environmental community. But among its opponents, only the EPA, which has virtually unlimited authority under the Clean Water Act, has the ability to administratively shut it down.

And that’s exactly what it is now threatening.

In a letter dated Friday to the Corps and the Mississippi Levee Board, which being dug at its site.

An extended Section 404(c) veto of the project by EPA would be only the 12th the agency has issued in its history. The federal agency communicated the numerous wetlands-related misgivings it had about the project following the release of the Corps’ preliminary project report in 2000. While project proponents had believed that many of these differences had been resolved through negotiations between the two agencies, EPA remained clearly unconvinced.

"EPA is initiating this 404(c) action based on the record to date and our assessment that the project may cause or contribute to significant degradation of the aquatic environment, including impacts to fish and wildlife," Starfield wrote. "We do not believe the potential impacts of the project, as currently proposed, can be adequately mitigated."

EPA continues to maintain that the proposed project would impact aquatic wetlands "on a massive scale," potential.

EPA trying to kill the Yazoo Backwater Project

Mississippi Levee Board is appealing the "environmental protection agency" trying to kill a project that will only enhance the environment in every way if completed.

EPA calls for comment on pump project

EPA: The construction and operation of the proposed pumps would degrade the critical functions of wetlands area.
### Wetland Adverse Hydrologic Effects

<table>
<thead>
<tr>
<th></th>
<th>Acres</th>
<th>Functional Value (FCU’s)</th>
<th>Relative Reduction To Functional Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Wetlands Pump Losses</td>
<td>66,945</td>
<td>-14,188</td>
<td>-1.6%</td>
</tr>
<tr>
<td>Reforestation Gains</td>
<td>55,600</td>
<td>+186,953</td>
<td>+20.8%</td>
</tr>
</tbody>
</table>

**Recommended Plan – Pump & Trees**

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The Corps assumed all Wetlands are sustained only by Backwater Flooding - they completely ignored annual precipitation.

The EPA officially Vetoed the YBW Project in August 2008
If the Pumps had been in place in 2008 – the year EPA vetoed the Project – the $220M Project Cost would have already been re-couped and we would have a net gain of $152M today!

If the Pumps had been in place in 2008 – the year EPA vetoed the Project – the $220M Project Cost would have already been re-couped and we would have a net gain of $152M today!

### YAZOO BACKWATER PUMP PROJECT

October 1, 2018

<table>
<thead>
<tr>
<th></th>
<th>Elevation</th>
<th>Cleared Acres 2/ Acres Benefited</th>
<th>Ag damages</th>
<th>Ag Benefits</th>
<th>Forested Acres 3/ Acres Benefited</th>
<th>All Acres 4/ Acres Benefited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump On</td>
<td>87.0</td>
<td>37,000</td>
<td></td>
<td></td>
<td>45,000</td>
<td>203,000</td>
</tr>
<tr>
<td>May 2008</td>
<td>92.2</td>
<td>98,000</td>
<td>61,000</td>
<td>$91,081,000</td>
<td>$34,136,000</td>
<td>$56,945,000</td>
</tr>
<tr>
<td>June 2009</td>
<td>93.7</td>
<td>133,000</td>
<td>96,000</td>
<td>$128,724,000</td>
<td>$35,684,000</td>
<td>$93,040,000</td>
</tr>
<tr>
<td>June 2011</td>
<td>90.0</td>
<td>71,000</td>
<td>34,000</td>
<td>$68,725,000</td>
<td>$35,684,000</td>
<td>$33,041,000</td>
</tr>
<tr>
<td>May 2013</td>
<td>90.9</td>
<td>82,000</td>
<td>45,000</td>
<td>$76,217,000</td>
<td>$34,136,000</td>
<td>$42,081,000</td>
</tr>
<tr>
<td>April 2015</td>
<td>90.7</td>
<td>80,000</td>
<td>43,000</td>
<td>$72,444,000</td>
<td>$33,469,000</td>
<td>$38,975,000</td>
</tr>
<tr>
<td>January 2016</td>
<td>91.4</td>
<td>89,000</td>
<td>52,000</td>
<td>$16,158,000</td>
<td>$6,719,000</td>
<td>$9,439,000</td>
</tr>
<tr>
<td>March 2016</td>
<td>92.0</td>
<td>99,000</td>
<td>62,000</td>
<td>$51,528,000</td>
<td>$19,156,000</td>
<td>$32,372,000</td>
</tr>
<tr>
<td>May 2017</td>
<td>88.5</td>
<td>52,000</td>
<td>15,000</td>
<td>$48,292,000</td>
<td>$34,136,000</td>
<td>$14,156,000</td>
</tr>
</tbody>
</table>

### Total Ag Damages Prevented w/ Pumps in place during Backwater Floods

- 2008-2018: $372,749,000
- 2008-2018: $52,700,000

### Total Project Cost for the Yazoo Backwater Pump Project (2007 estimate)

- $220,000,000

### Total Benefit with Ag Damages Prevented ($320M) minus Project Cost ($220M)

- $152,749,000

Does not include 2019
Good Things Happening in 2017:

1. Improve the Environmental Protection Agency
   Solution – New EPA Leadership reforms the EPA
   Senate confirmed Pruitt on February 24, 2017
   In 2018 Andrew Wheeler takes Scott Pruitt’s place

2. Reduce Regulations
   Solution – Eliminate proposed WOTUS, FFRMS, revised P&G
   President Trump signed Executive Orders on
   Feb. 28, 2017 for WOTUS & Mar. 28, 2017 for FFRMS

3. New Assistant Secretary of the Army for Civil Works (ASACW)
   Solution – Appoint R.D. James
   Jan. 25, 2018 Senate confirms R.D. James as ASACW (89-1 vote)
"This project is of critical importance to Mississippi. These issues of flood control infrastructure have worsened as evidenced by the after-action report of the approximately 500,000 acres of farmland that flooded this month. The use of water pumps from the Corps of Engineers by lifting excess rainfall runoff from the relatively flat land surrounding the Old River and tying it into the Mississippi River."  

- Congressman Bennie Thompson

"The recent devastating flooding in Mississippi demonstrated the critical importance of our flood control infrastructure. Our common sense solution to the concerns of farmers, resident, and property owners is to include the levees in the levee system to provide flood protection. We can continue discussions on this subject as we work to press for a resolution of the current and ongoing Yazoo Backwater flooding. And thanks to the Lower Mississippi River Museum and Riverfront Interpretive Site for hosting us for our Yazoo Backwater flood talks. They offer a virtual reality demonstration of Eagle Lake flooding."  

- Senator Roger Wicker

"Similar flooding has occurred not once, but ten separate times since the EPA in 2008 prohibited the Corps from completing the final aspects of a 78-year-old comprehensive flood control effort... We can all agree that decisions made in 2008 have not only failed to meet the intent with respect to the environment, wildlife and habitat but also placed a tremendous burden on the lives and properties of thousands of Mississippians."

- Senator Cindy Hyde-Smith
The Army Corps of Engineers continues to support the installation of the pumps. They believe after seven different reviews and studies, that the pumps would have substantial impact in the flooding in the Mississippi Delta, and we have the total and complete support of the Corps of Engineers, and now that the review is beginning, I am extremely encouraged that the pumps in the Yazoo Backwater area may be installed.

– Governor Phil Bryant
Backwater Tour with Sen. Cindy Hyde-Smith and Region IV EPA Administrator Mary Walker
March 18, 2019

Backwater Tour with ASACW R.D. James
March 29, 2019

Backwater Tour with Gen. Scott Spellmon
Corps Headquarters
June 4, 2019

Backwater Tours
Annual Precipitation sustains 92% of the Wetlands in the Backwater Area – not Backwater Flooding!
The EPA meet with the Corps on October 22, 2019 to discuss ways to enhance the project to make it more environmentally friendly so they could consider issuing a new permit based on a modified project. The Corps is working on this and will get back with the EPA before Christmas.
2019 BACKWATER EVENT

MAY 2019 - WITHOUT A PUMP
Backwater at 98.2’
548,000 acres Flooded
231,000 acres Crop Land
3 Highways Flooded
686 Homes Flooded

MAY 2019 – WITH A PUMP
Backwater at 92.5’
354,000 acres Flooded
109,000 acres Crop Land
0 Highways Flooded
0 Homes Flooded

#FORGOTTENBACKWATERFLOOD
#FINISHTHEPUMPS
www.finishthepumps.com
Please visit our web site for additional information.

www.msleveeboard.com

QUESTIONS???

#FORGOTTENBACKWATERFLOOD
#FINISHTHEPUMPS

www.finishthepumps.com

THE MS LEVEE BOARD:
PROUD TO SERVE THE DELTA

MISSISSIPPI LEVEE BOARD
EST. 1865  2283 HWY. 82 W.