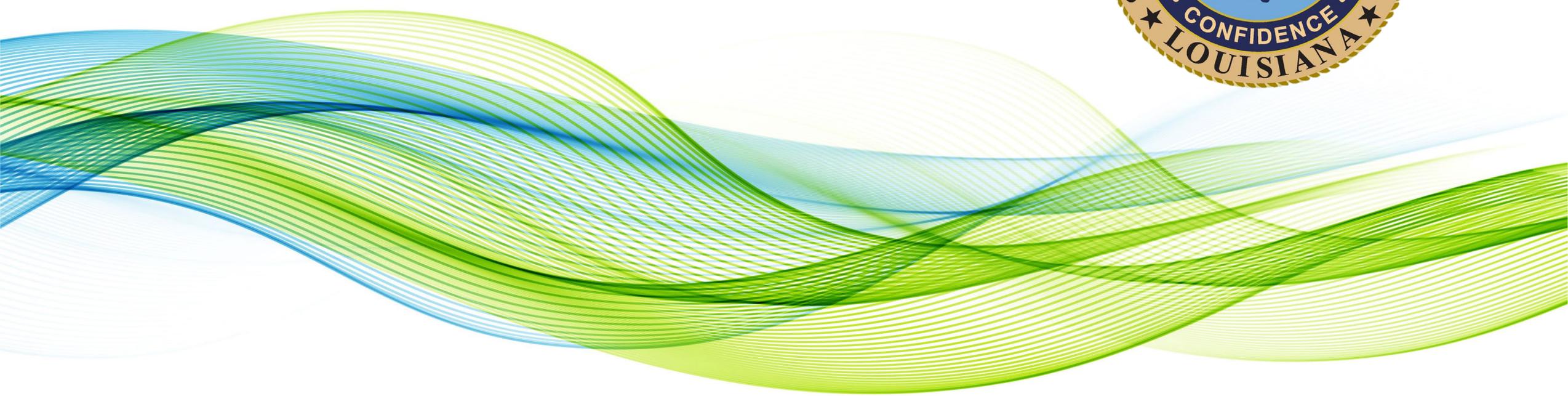
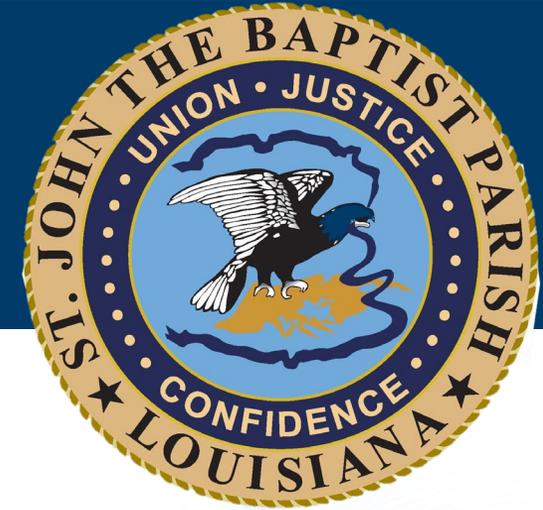


# WASTEWATER IMPROVEMENTS and CONSOLIDATION PLAN

*Clean Water State Revolving Fund Project*



January 18, 2022

# Clean Water State Revolving Fund

## WHAT IS CWSRF?

- ››› Funding Program Administered by LDEQ
- ››› Provides Financial Assistance for Eligible Projects
- ››› Low Interest Loans
- ››› Project Compliance with Clean Water Drinking Act

## REQUIREMENTS

- ››› Environmental Information Document (EID)
  - ››› Evaluate Alternatives & Environmental Impacts
  - ››› Notify Cross-Cutting Agencies of Proposed Project
  - ››› Hold Public Hearing
  - ››› Discuss Potential Environmental Impacts
- ››› Preliminary Engineering Report (PER)
  - ››› Evaluate Alternatives
  - ››› Include Engineering Cost Estimate for Proposed Project
  - ››› Provide Financial Information

# Existing East Bank Wastewater System



*Belle Pointe*

Location:  
30° 05' 27.6" N  
90° 32' 06.6" W

Service Area:  
Northwest LaPlace

Average Daily Flow:  
0.07 MGD

Treatment Type:  
Activated Sludge

Discharge:  
Drainage Ditch to  
Reserve Relief Canal  
to Lake Maurepas



*Woodland WWTP*

Location:  
30° 05' 44.3" N  
90° 28' 19.9" W

Service Area:  
Northeast LaPlace

Average Daily Flow:  
0.50 MGD

Treatment Type:  
Activated Sludge

Discharge:  
Drainage Ditch to  
Vicknair Canal to  
Maurepas Swamp



*River Road WWTP*

Location:  
30° 03' 44.2" N  
90° 30' 07.2" W

Service Area:  
LaPlace

Average Daily Flow:  
3.68 MGD

Treatment Type:  
Activated Sludge

Discharge:  
MS River



*Reserve WWTP*

Location:  
30° 05' 22.5" N  
90° 33' 07.7" W

Service Area:  
Reserve

Average Daily Flow:  
1.43 MGD

Treatment Type:  
Oxidation Pond

Discharge:  
MS River



*Garyville WWTP*

Location:  
30° 04' 20.1" N  
90° 37' 24.2" W

Service Area:  
Garyville

Average Daily Flow:  
0.73 MGD

Treatment Type:  
Activated Sludge

Discharge:  
MS River

# Existing West Bank Wastewater System



*Wallace WWTP*

Location:  
30° 02' 36.6" N  
90° 39' 37.4" W

Service Area:  
Wallace

Average Daily Flow:  
0.13 MGD

Treatment Type:  
Activated Sludge

Discharge:  
MS River



*Central WWTP*

Location:  
30° 01' 51.3" N  
90° 35' 25.2" W

Service Area:  
Edgard

Average Daily Flow:  
0.17 MGD

Treatment Type:  
Activated Sludge

Discharge:  
MS River



*Tigerville WWTP*

Location:  
30° 02' 05.6" N  
90° 32' 33.9" W

Service Area:  
Tigerville and Lucy

Average Daily Flow:  
0.25 MGD

Treatment Type:  
Activated Sludge

Discharge:  
MS River

# Existing WWTPs Location Map



# Wastewater System Plan

## EAST BANK One East Bank Treatment Facility

New Garyville  
Pump Station and  
Force Main

Woodland Pump  
Station and Force  
Main

Decommission and  
Demolish Belle Pointe,  
Woodland, and Garyville  
WWTPs

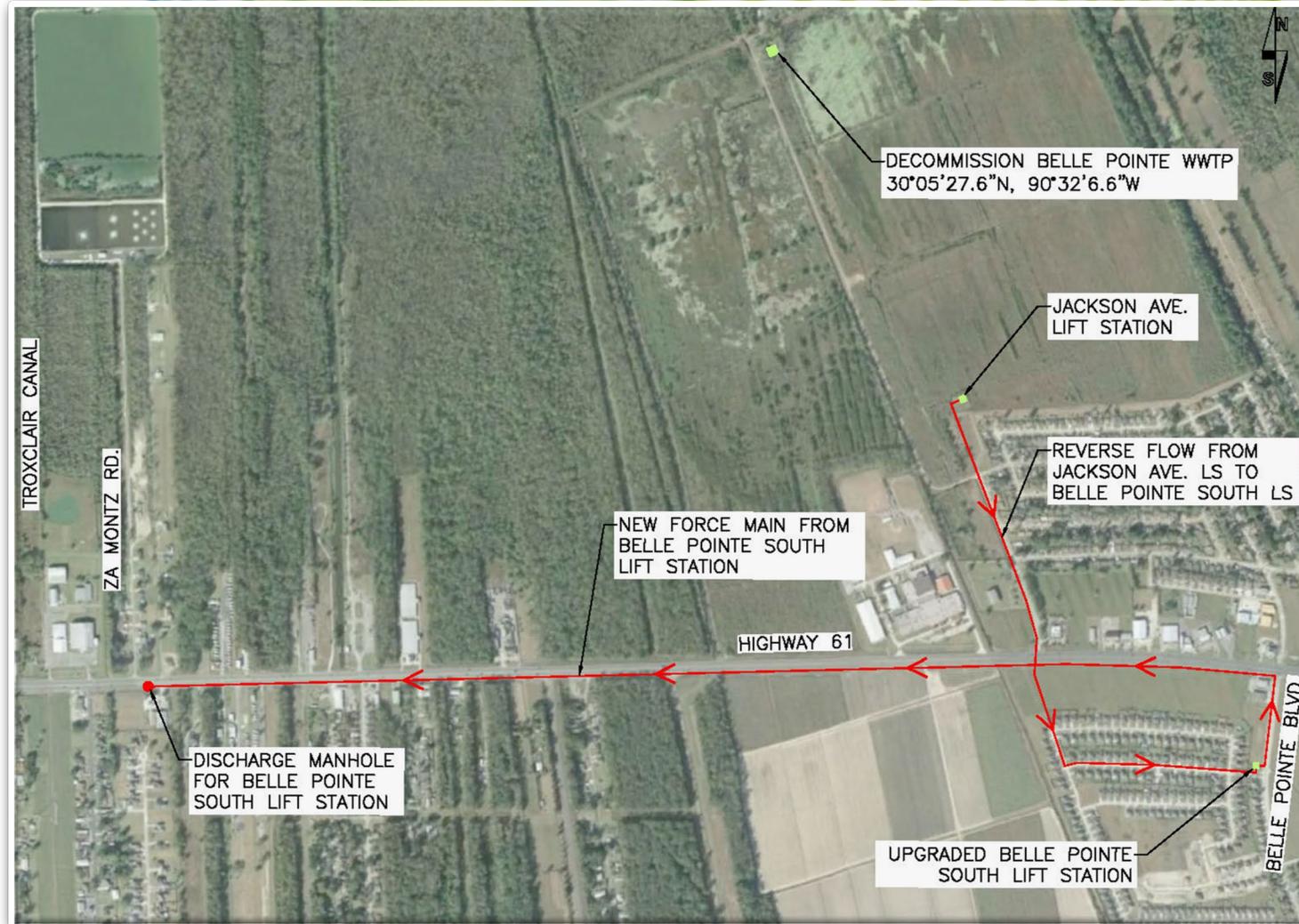
River Road WWTP  
and Reserve WWTP  
Connection

Reserve WWTP  
Capacity Expansion

Decommission and  
Demolish River  
Road WWTP

Reserve  
Wastewater  
Treatment Plant

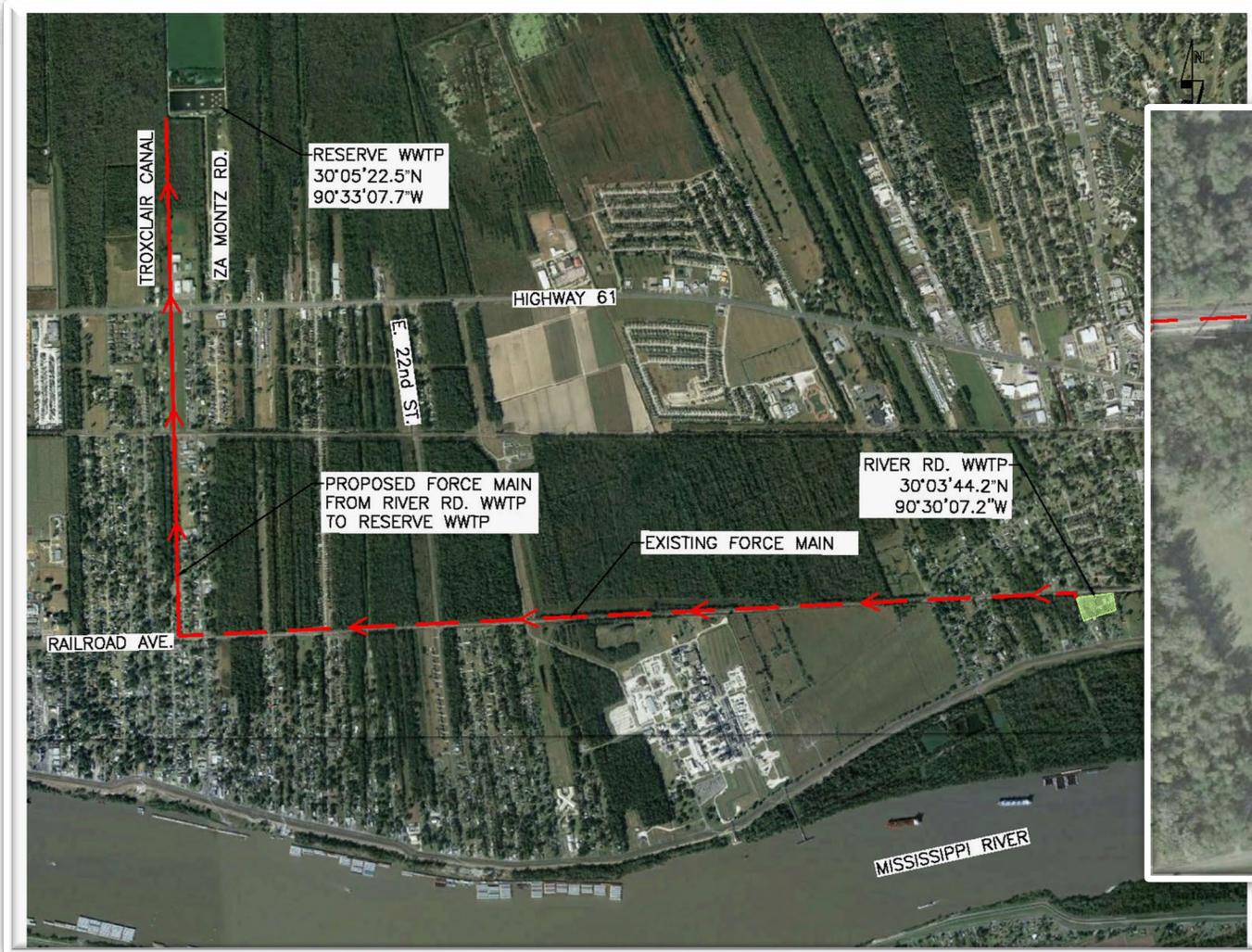
# Belle Pointe Service Area Proposed Project Plan



# Woodland Service Area Proposed Project Plan



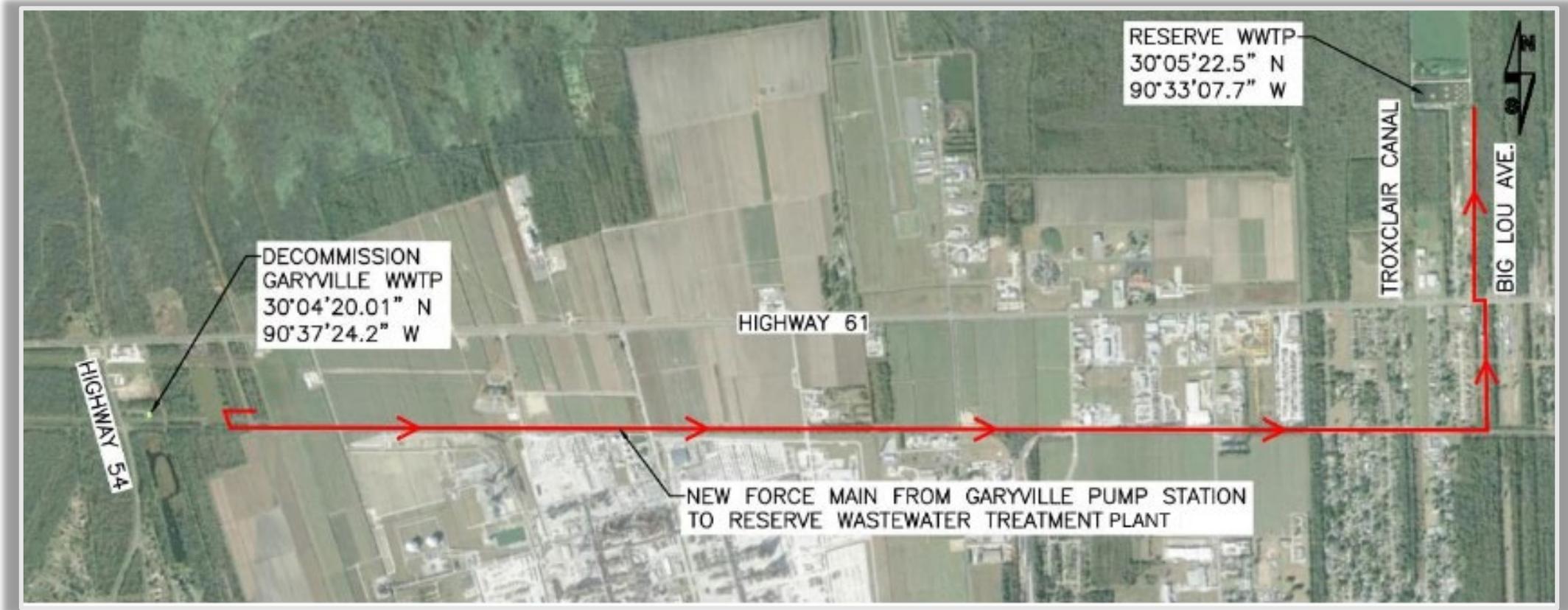
# River Road Service Area Proposed Project Plan



# Reserve Service Area Proposed Project Plan



# Garyville Service Area Proposed Project Plan



# Wastewater System Plan

## WEST BANK One West Bank Treatment Facility

Rehabilitate Jack Street LS and  
Force Main Connection to  
West Bank WWTP

Decommission and Demolish  
Wallace WWTP

Rehabilitate Tigerville PS and New  
Force Main to 1st Street LS

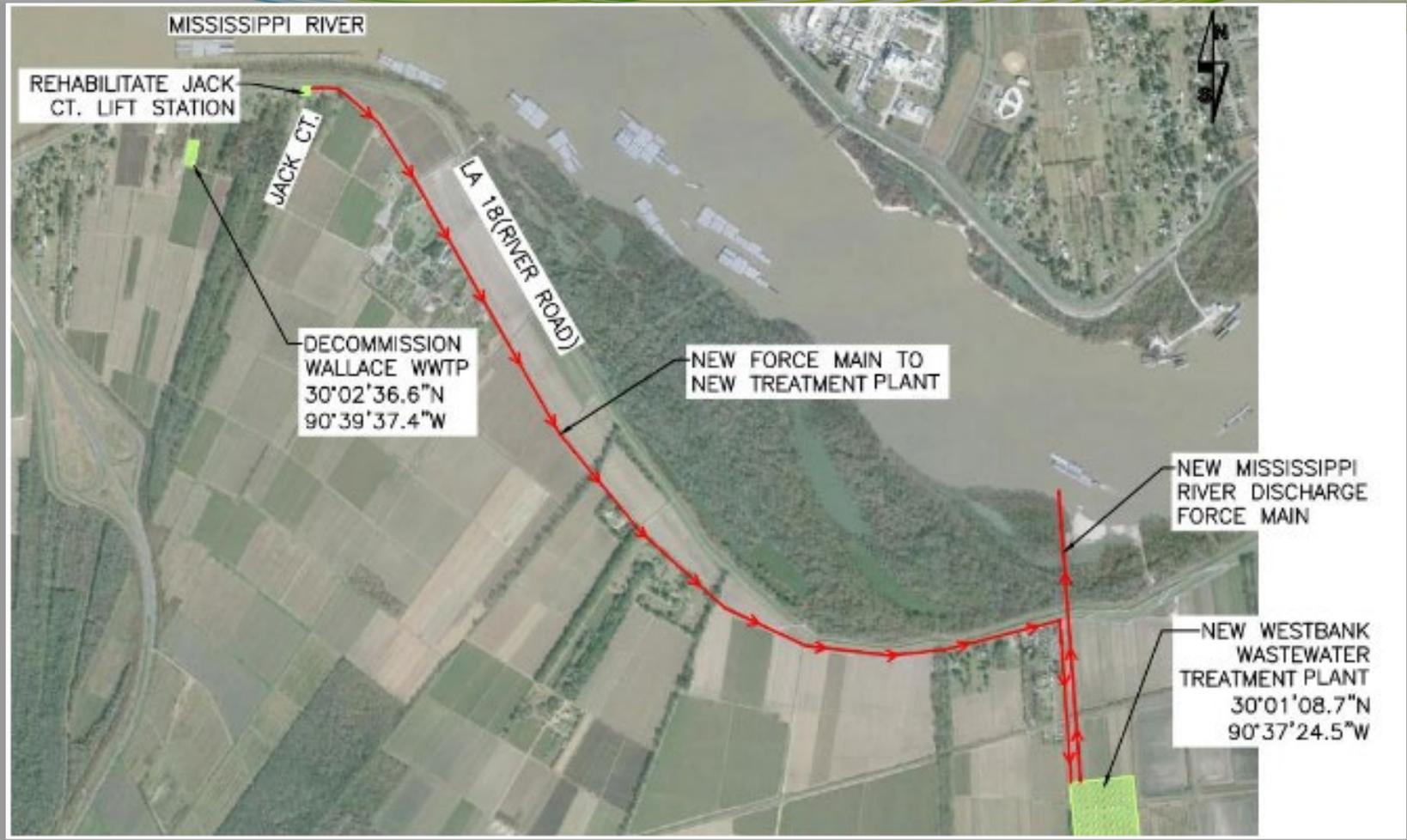
Decommission and Demolish  
Tigerville WWTP

Rehabilitate 1<sup>st</sup> St. Lift Station  
and New Force Main to WWTP

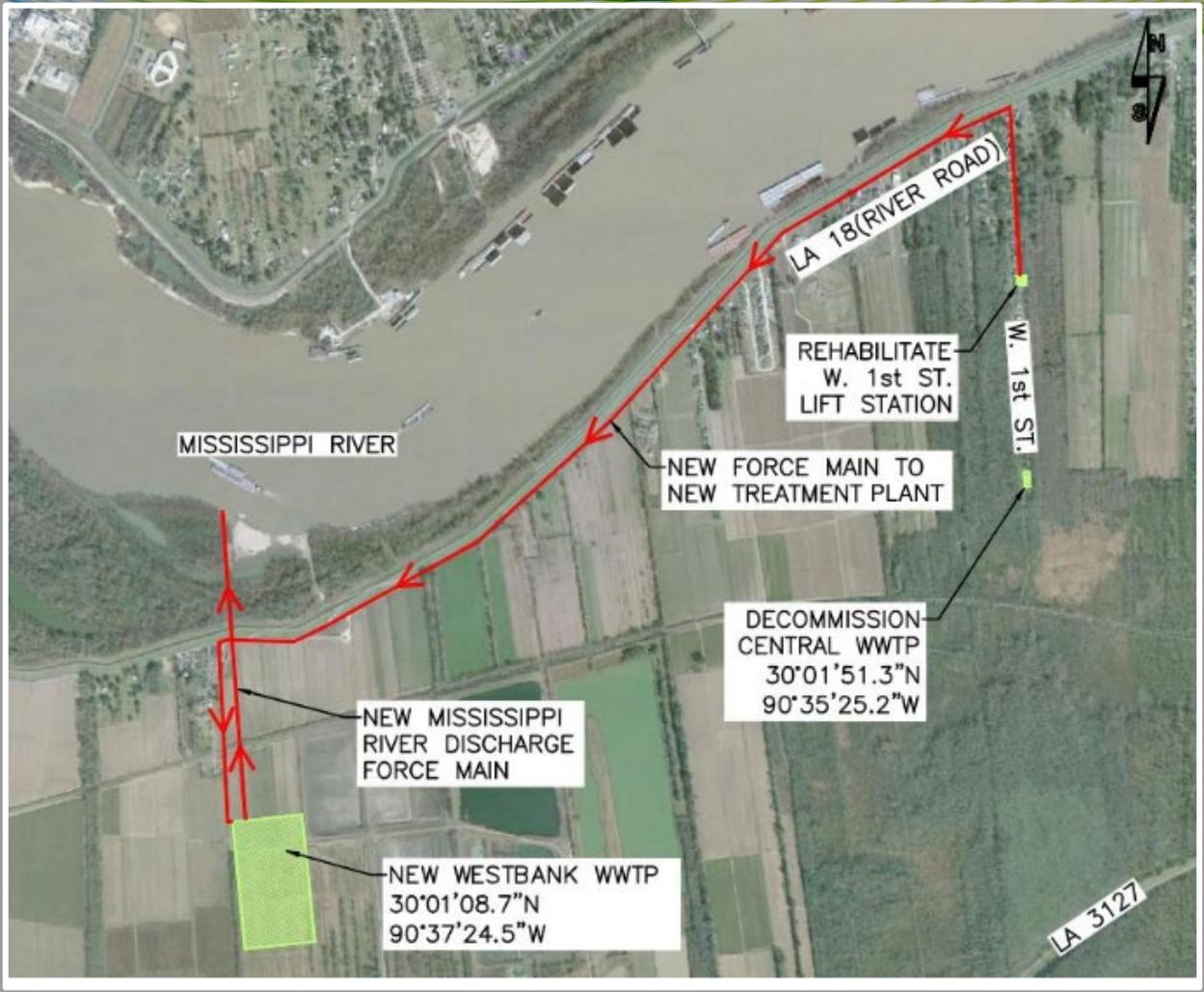
Decommission and Demolish  
Central WWTP

**New 1.0 MGD  
West Bank  
Wastewater  
Treatment Plant**

# Wallace Service Area Proposed Project Plan



# Central Service Area Proposed Project Plan



# Tigerville Service Area Proposed Project Plan



# Wastewater System Plan

## **EAST and WEST BANK** GRAVITY SYSTEM IMPROVEMENTS

### >>> Inflow and Infiltration Improvements

- >>> Smoke Testing
- >>> Point Repairs
- >>> Line Replacement

### >>> Lift Station Rehabilitations

- >>> Pump Upgrades
- >>> Piping and Valve Work
- >>> Controls Improvements

# Wastewater System Plan

## **EAST and WEST BANK** Lift Station Rehabilitations

### >>> East Bank

- >>> Central Avenue LS
- >>> Cambridge LS #2
- >>> Cambridge LS #3
- >>> Main Street LS #1
- >>> Main Street LS #2
- >>> River Forest LS #1
- >>> Ned Duhe LS
- >>> Ezekial Jackson LS
- >>> Esperanza LS

### >>> West Bank

- >>> West 13<sup>th</sup> Street LS
- >>> East 13<sup>th</sup> Street LS
- >>> West 8<sup>th</sup> Street LS

# Regulations

## EAST BANK Violations

All Wastewater Treatment Plants are subject to the Louisiana Water Quality Regulations (LAC 33: Chapter IX), which require permits for the discharge of pollutants from any point source into waters of the state of Louisiana. This surface water discharge permitting system is administered under the Louisiana Pollutant Discharge Elimination System (LPDES) program.



### Compliance Order



**May 18, 2018** by the Louisiana Department of Environmental Quality, for **River Road** Treatment Plant's effluent quality failing to comply with the LPDES permit limitations.



### Notice of Violation



**February 14, 2020** by the Louisiana Department of Environmental Quality, for **Woodland** Treatment Plant's effluent quality failing to comply with the LPDES permit limitations.



### Notice of Excursions and Non-Compliance



**April 14, 2021** by the Louisiana Department of Environmental Quality, for **Woodland** Treatment Plant's effluent quality failing to comply with the LPDES permit limitations.



**June 10, 2021** by the Louisiana Department of Environmental Quality, for **River Road** Treatment Plant's effluent quality failing to comply with the LPDES permit limitations.



**June 16, 2021** by the Louisiana Department of Environmental Quality, for **Reserve** Treatment Plant's effluent quality failing to comply with the LPDES permit limitations.

## WEST BANK Violations

All Wastewater Treatment Plants are subject to the Louisiana Water Quality Regulations (LAC 33: Chapter IX), which require permits for the discharge of pollutants from any point source into waters of the state of Louisiana. This surface water discharge permitting system is administered under the Louisiana Pollutant Discharge Elimination System (LPDES) program.



### Notice of Excursions and Non-Compliance

- May 10, 2021 by the Louisiana Department of Environmental Quality, for **Tigerville** Treatment Plant's effluent quality failing to comply with the LPDES permit limitations.
- May 10, 2021 by the Louisiana Department of Environmental Quality, for **Garyville** Treatment Plant's effluent quality failing to comply with the LPDES permit limitations.



### Notice of Deficiency

- May 10, 2021 by the Louisiana Department of Environmental Quality, for **Central** Treatment Plant's effluent quality failing to comply with the LPDES permit limitations.



### Notice of Possible Significant Non-Compliance Notice

- May 6, 2021 by the Louisiana Department of Environmental Quality, for **Garyville** Treatment Plant's effluent quality failing to comply with the LPDES permit limitations.
- May 6, 2021 by the Louisiana Department of Environmental Quality, for **Tigerville** Treatment Plant's effluent quality failing to comply with the LPDES permit limitations.

# Alternatives Considered

## Alternative #1

### No Action

- This alternative would require the existing Belle Pointe, Woodland, River Road, Garyville, Wallace, Central, and Tigerville WWTPs to remain in operation and therefore continue exceeding LPDES permit limitations.

## Alternative #2:

### Expand Reserve Wastewater Treatment Plant and Construct New West Bank Wastewater Treatment Plant to Serve as Sole Treatment Facility Respective of Riverbank

- This alternative would replace the existing Belle Pointe, Woodland, River Road, Garyville, Wallace, Central, and Tigerville WWTPs. The proposed replacement WWTPs are both Oxidation Pond Wastewater Treatment Facilities.

# Selected Alternative

## Alternative #2:

### Reasons for Selecting Alternative #2

- ››› The proposed alternative will ensure LPDES permit and EPA Clean Water Compliance
- ››› The proposed alternative is conducive to improving health and safety of citizens associated with ditch drainage discharge
- ››› The proposed alternative will eradicate unnecessary and expensive operation and maintenance costs
- ››› The proposed alternative will rehabilitate, consolidate, or decommission dated and rundown infrastructure
- ››› The proposed alternative will mitigate impacts of flooding, which results in sanitary sewer overflows
- ››› No impacts to critical habitats of rare, threatened, or endangered species within Louisiana's boundary are anticipated for the proposed alternative.

The No Action alternative is not a practical option because it requires the existing treatment facilities to remain operational, and therefore out of compliance.

# Alternatives Considered

Average Annual Wastewater O & M Cost		
Treatment Plant	Average Annual O&M Cost	Estimated Electricity Cost
Belle Pointe	\$ 30,000	\$ 10,200
Woodland	\$ 215,000	\$ 75,000
River Road	\$ 655,000	\$ 255,000
Reserve	\$ 200,000	\$ 8,000
Total East Bank	\$ 1,100,000	\$ 348,200
Wallace	\$ 16,000	\$ 4,500
Central	\$ 30,000	\$ 11,500
Tigerville	\$ 52,000	\$ 22,000
Total West Bank	\$ 98,000	\$ 38,000
Collection System	\$ 1,110,000	--
Total WWTPs	\$ 1,198,000	\$ 386,200
Total Wastewater O&M	\$ 2,308,000	--

Proposed WWTP Estimated O & M Cost				
	Reserve WWTP Budget 2021	Expanded Reserve WWTP Estimated O&M Cost	Estimated West Bank WWTP O & M Cost	Total Proposed O&M Cost
Chemicals	\$ 50,000	\$ 120,000	\$ 10,000	\$ 130,000
Utilities	\$ 96,000	\$ 230,400	\$ 19,200	\$ 249,600
Mechanical Maintenance	\$ 20,000	\$ 48,000	\$ 4,000	\$ 52,000
Electrical Maintenance	\$ 5,000	\$ 12,000	\$ 1,000	\$ 13,000
Operating Supplies	\$ 15,000	\$ 36,000	\$ 3,000	\$ 39,000
Permits	\$ 8,500	\$ 20,400	\$ 1,700	\$ 22,100
Total Oxidation Pond O&M	\$ 194,500	\$ 466,800	\$ 38,900	\$ 505,700
Collection System				\$ 1,110,000
Total Wastewater O&M				\$1,615,000

# Alternatives Considered

EVALUATION ITEMS	ALTERNATIVE #1	ALTERNATIVE #2
Description	NO ACTION	Expand Reserve Wastewater Treatment Plant and Construct New West Bank Wastewater Treatment Plant to Serve as Sole Treatment Facility Respective of Riverbank
Plant Capacity	The existing capacities would remain.	<p><b>RESERVE WWTP</b> Average Daily Flow=12.0 MGD Peak Daily Flow=20.0 MGD</p> <p><b>WEST BANK WWTP</b> Average Daily Flow=1.0 MGD Peak Daily Flow =4.0 MGD</p>
Location	The existing locations would remain.	Utilizes a centralized location on the East and West Banks of the MS River.
Environmental Impacts	The existing WWTPs would remain operational, therefore discharging effluent that does not meet the LPDES permit limitations.	<ul style="list-style-type: none"> <li>• West Bank site will require substantial clearing of shrubs and trees</li> <li>• No access road to one of the project locations</li> <li>• Requires servitudes, including one levee crossing</li> </ul>

# Solicitation of Views

## Agencies Notified

Department of Natural Resources  
EPA Region 6  
Federal Emergency Management Agency, Region 6  
St. John the Baptist Parish Floodplain Management and Hazard Mitigation  
State Historic Preservation Officer  
Louisiana Department of Environmental Quality  
Louisiana Department of Transportation and Development  
Louisiana Department of Wildlife and Fisheries  
Louisiana Department of Wildlife and Fisheries- Louisiana Natural Heritage Program  
Environmental Protection Agency, Region 6, Marine and Wetlands Section  
Natural Resources Conservation Service  
South Central Planning and Development Commission  
Southeast Region National Parks Service  
U.S. Army Corps of Engineers  
U.S. Fish and Wildlife Service

## Acts/Executive Orders

Archaeological and Historic Preservation Act  
National Historic Preservation Act  
Clean Air Act  
Coastal Barriers Resources Act  
Coastal Zone Management Act  
Endangered Species Act  
Fish and Wildlife Coordination Act  
Farmland Protection Act  
Floodplain Management, Executive Order 11988  
Protection of Wetlands, Executive Order 11990  
National Parks, Monuments  
Safe Drinking Water Act  
Groundwater  
Sole Source Aquifer  
Wild and Scenic Rivers Act

# Action Required

- Archaeological and Historical Preservation Act
  - Phase I cultural resources survey at West Bank sites
- Coastal Zone Management Act
  - Apply for a Coastal Use Permit
- Endangered Species Act & Fish and Wildlife Service
  - If WDP tracked species are encountered within the project area, contact the WDP Data Manager
- Farmland Protection Act
  - IFPPA requires a Farmland Conversion Impact Rating

# Action Required

## >>> Floodplain Management, Executive Order 11988

- >>> Proper permits must be obtained
  - >>> Department of Army Permit Section 404 and Section 10
  - >>> Coastal Use Permit
- >>> Any new structures or mechanical/electrical equipment must be elevated above base flood elevation
- >>> Any substantially improved (more than 50% of the value of building) structures must be elevated above base flood elevation
- >>> During construction clear debris and keeping project area open to allow for accumulation and flow of water
- >>> Comply with National Flood Insurance Program for water supply systems (44CFR 60.3)

## >>> Protection of Wetlands, Executive Order 11990

- >>> During construction clear debris and keeping project area open to allow for accumulation and flow of water
- >>> Comply with National Flood Insurance Program for water supply systems (44CFR 60.3)

## >>> Safe Drinking Water Act

- >>> Obtain LPDES permit for new West Bank WWTP
- >>> Contact LDEQ Water Permit Division to determine if proposed project requires a permit
- >>> Obtain Sewage Sludge and Biosolids Use or Disposal Permit. Notice of Intent Required if sewage sludge is to be hauled to landfill.

# Estimated Monthly Bill

»»» St. John the Baptist Parish does not expect any substantial increase in utility rates due to this project.

»»» No connection fees associated with this project

Water Rate= \$0.00 for first 4,000 gal

\$6.19/1000 gal for next 2,000 gal

\$5.07/1000 gal for next 4,000 gal

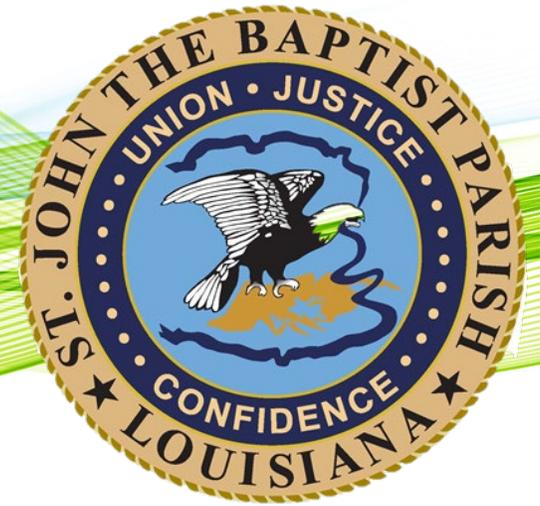
Residential sewerage is based on 85% of water consumption

Sewer Rate= \$5.37/1000 gal

Estimated Monthly Water Bill = **\$22.63**

Estimated Monthly Sewer Bill = **\$36.97**

Total Monthly Water & Sewer Bill = **\$59.60**



# QUESTIONS?

Rob Delaune  
[rdelaune@deii.net](mailto:rdelaune@deii.net)



digital  
engineering



Clean Water  
State Revolving Fund