



Update on DU Conservation in  
SW Louisiana –  
July CPRA Board Meeting

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# Outline



- Overview/Budget
- Projects
  - Recently Completed Projects
  - Ongoing Projects
  - Future Projects
- Other DU Work
  - Engineering Services
  - NRCS Nutrient Reduction
  - Rice Stewardship Program
  - Louisiana Waterfowl Project

# Louisiana – Money Spent on Conservation



- FY19

- \$10,075,843

- FY20

- \$10,231,562

- FY21

- \$12,430,995

- FY22 (projected)

- ~\$12.3M

Notes: FY21 ended on June 30, 2021. FY21 - \$10.3M public funding and \$2.1M major gifts.



# Grant Writing – Lafayette Office



- FY20 Grant Writing

- 4 NAWCA Proposals
- 1 NRCS Proposal
- 1 NFWF Proposal
- 1 RAE Proposal

- Successful at 6 of 7 proposals

- ~\$4.8 million in funding

- FY21 Grant Writing

- 4 NAWCA Proposals
- 1 NFWF Proposal

- Secured 2
- Other 3 are still pending

- ~\$5.6 million in funding if secure all 5



## Projects:

- 1 Moist Soil Unit
- 1 Marsh Creation
- 2 Crevasse
- 1 Water Control Structure / Terrace
- 2 Terrace



PACWMA MS Unit, PACWMA Bully Camp, Phil's Cut, GMMC, ADWMA ET Crevasses, Crimson, and Bay Denesse (7)

Recently Completed Projects –  
FY20 and FY21 |



## Projects:

- 2 Impoundment Improvement
- 6 Water Control Structure
- 2 Crevasse
- 4 Terrace
- 2 Shoreline Protection
- 1 Freshwater Delivery



Rock Refuge Unit 10, Kings Bayou II, S. Oak Grove, CPSB Terraces, White Lake WCS, Deep Lake, FW Bayou II, MI P1, WS 28-5, ADWMA ET, Bayou L'Ours IV, East Raccourci, Meraux Foundation, Delacroix, T. Ortego, MRBFD, and Bayou Sauvage NWR (17)


# Ongoing Projects – FY22







# FY22 Projects – SW LA



- Under Construction Now:
  - Kings Bayou Water Control Structure Phase II
  - Rockefeller Refuge Unit 10 Improvements
  - Deep Lake Unit Improvements
  -  • Freshwater Bayou Shoreline Repairs Phase II

- Construction Later in FY:
  - White Lake WCA Hunting Unit Structures
  -  • South Oak Grove Structures
  -  • CPSB Terraces in Grand Chenier



# Kings Bayou II



Photo Courtesy of Lonnie  
G. Harper and Associates

60" Culverts





# Rockefeller Refuge Unit 10

3 culvert structures and pump system



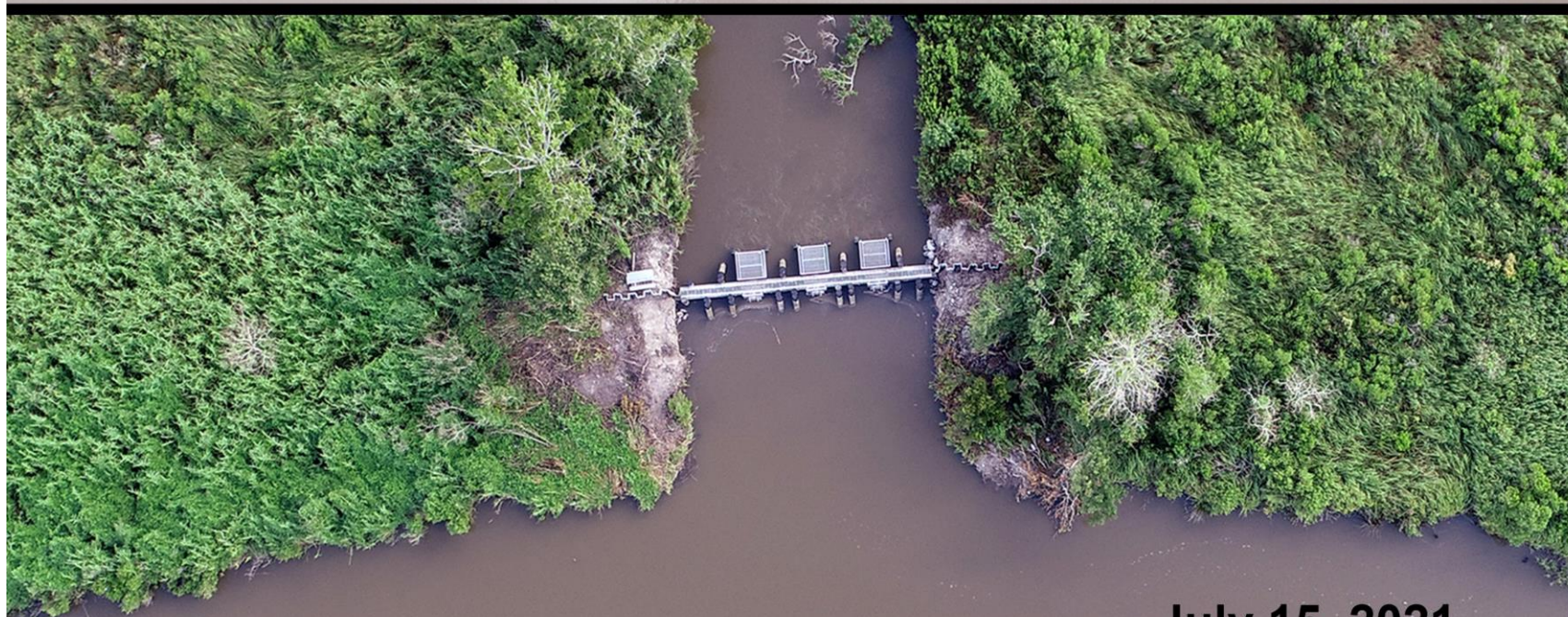




3 WCS, 4 breach repairs, and rock riprap



May 29, 2021



July 15, 2021

Photos Courtesy of National Audubon Society



# Deep Lake Unit Dirt and Rock – Freshwater Bayou



Photo Courtesy of National Audubon Society



# Freshwater Bayou Phase II



Rock riprap,  
embankment repairs,  
TRM, and plantings

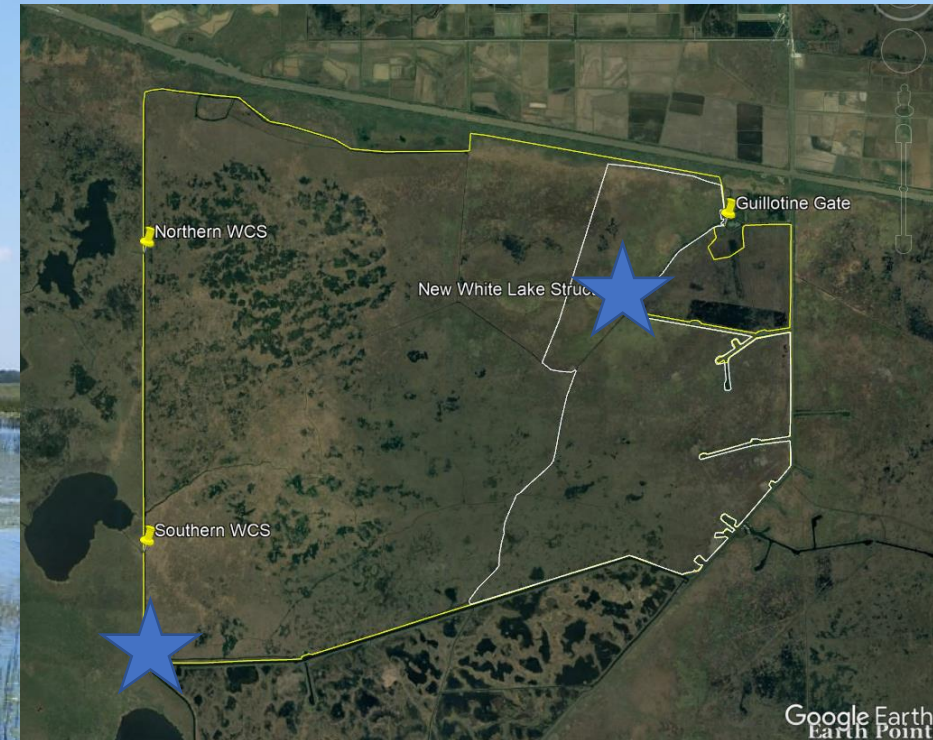
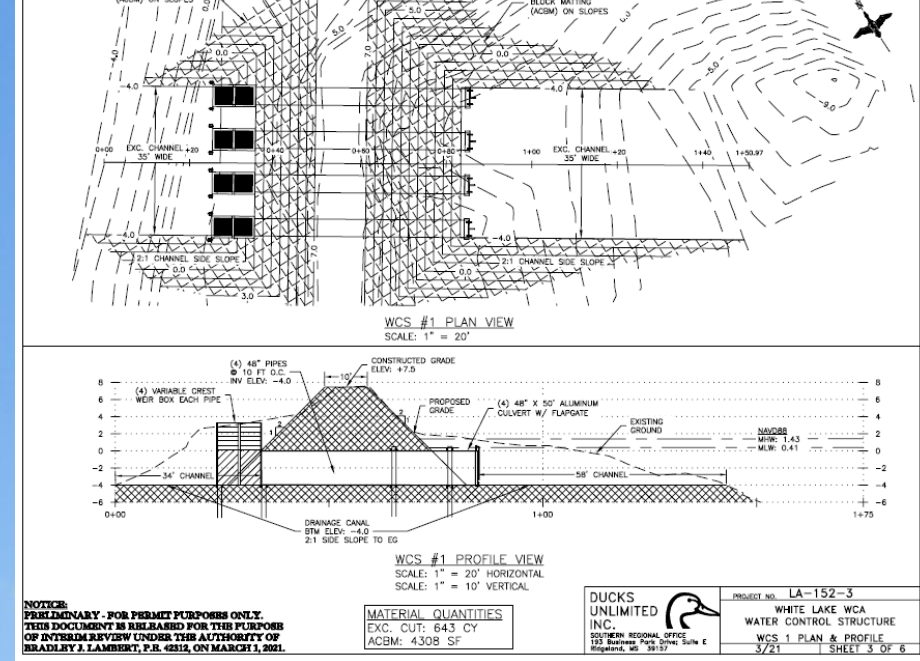






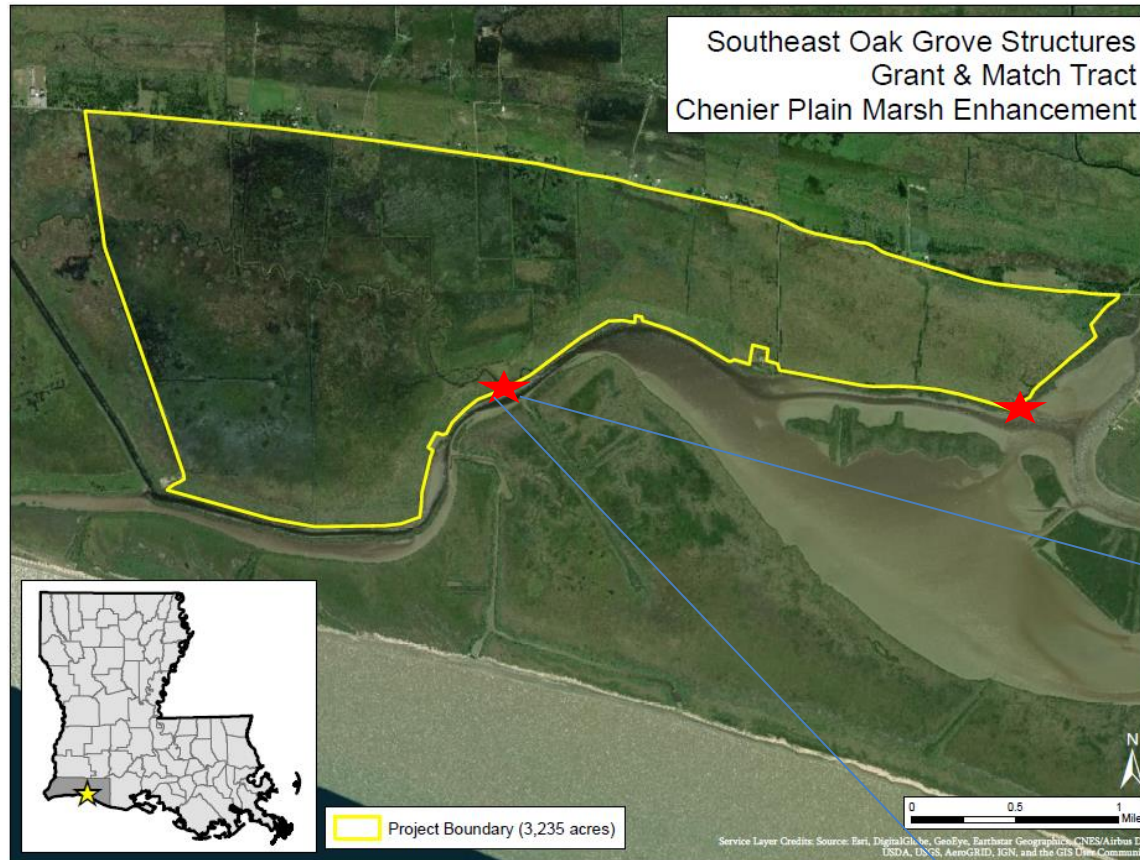
# White Lake WCA

- Two New Structure in Hunting Marsh (Unit 1)
  - 4 – 48” Culverts on East Side
  - 3 – 48” Culverts on Southwest Side
- 16,000 Acre Unit
- Improve Management and Lessen Flooding Stress
- Funded by Chevron, Bass Pro, James M. Cox Foundation, and other DU donors



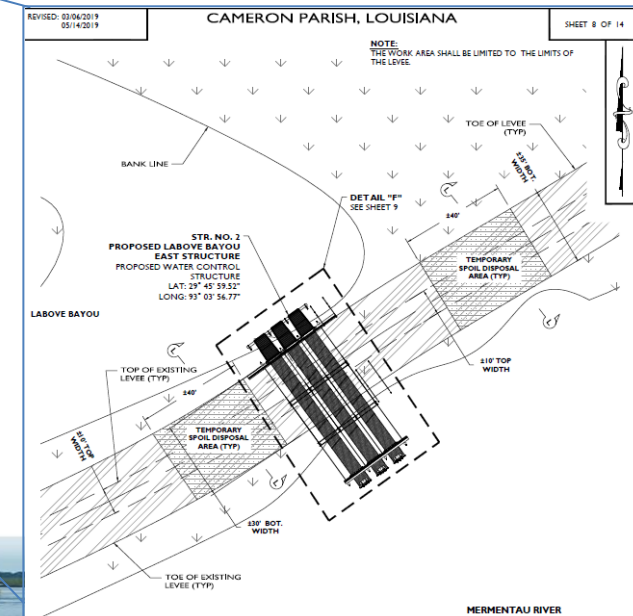


# South Oak Grove Water Control Structures



★ = location of replacement structures

- 3,235 acres of brackish marsh
- CPPJ recently completed ~30,000 (LF) of levee repairs
- Replace non-functional water control structures (30+ years old)
- New structures will include a total of four 60" culverts
- New structures will have weir boxes and flap gates or combination gates



**Goal:** Enhanced habitat conditions via facilitation of water level and salinity management capabilities



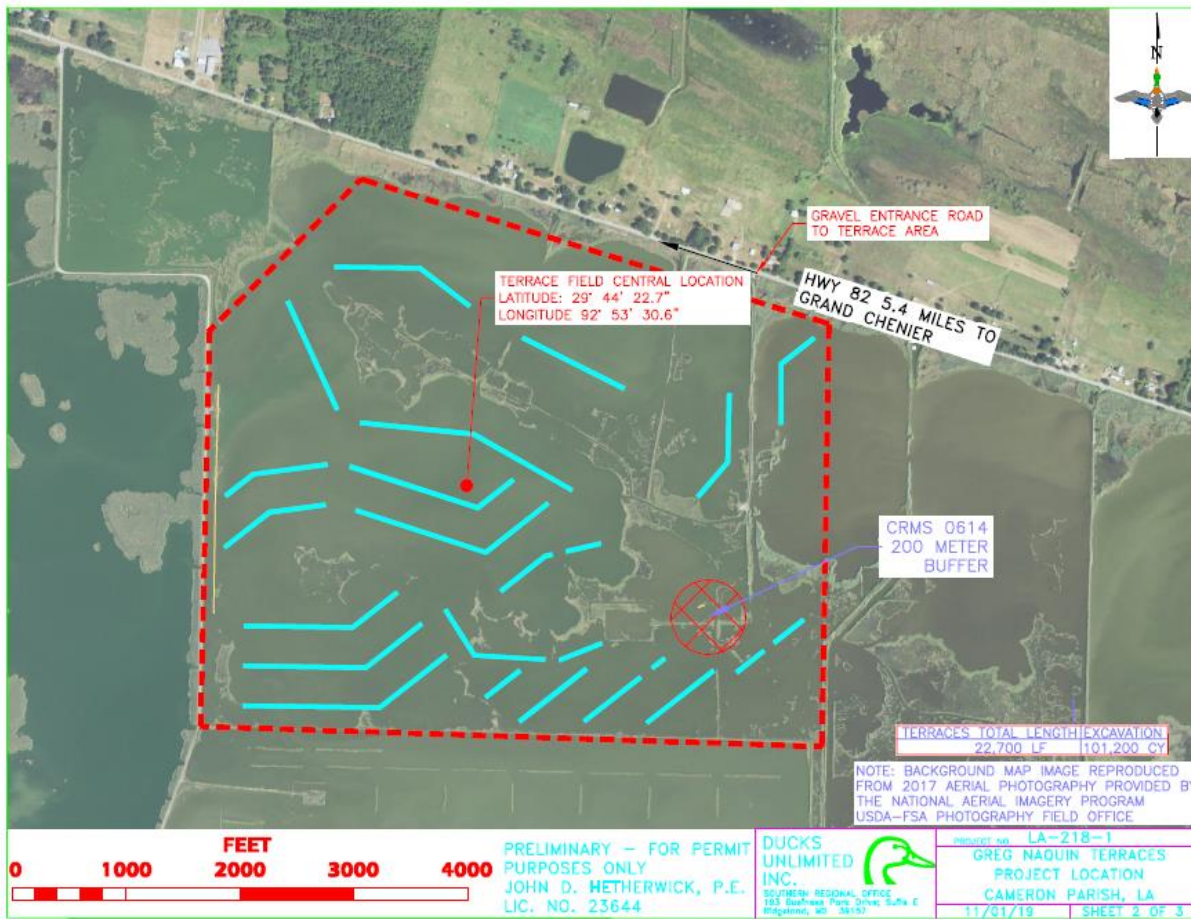


# History of Flood Stress





# CPSB Terraces – Grand Chenier



- 565 acres of coastal marsh
- Construct ~ 15,700 linear feet of earthen terraces
- Terraces planted with marsh vegetation
- **Goal:** create marsh habitat in open water, protect existing marsh, and create suitable conditions for desirable plant communities



## Projects:

- 2 Water Control Structure
- 1 Shoreline Repair
- 2 Water Control / Terrace
- 2 Terrace (pending)
- 1 Terrace / Living Shoreline (pending)



Bayou Chene, Marsh Island P2, Continental, Apache, H. Bourg, Pond 5 COP, Port Fourchon, and Bayou Sauvage NWR (8)

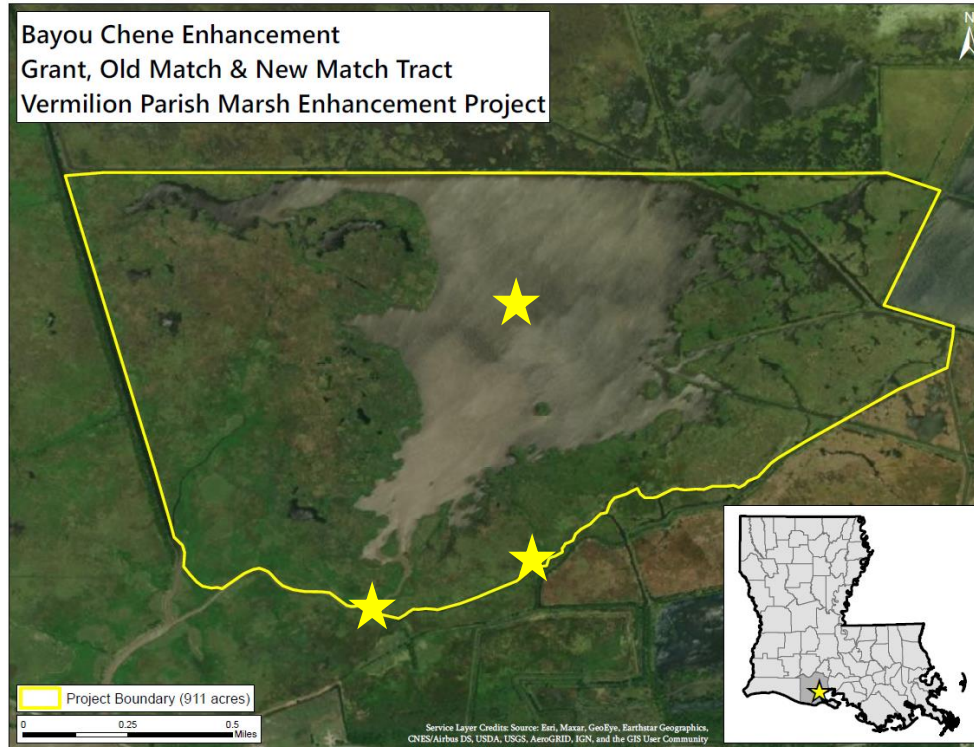
# Funded Future Projects – FY 23+

~\$5.9M Secured; ~\$5.6M Pending





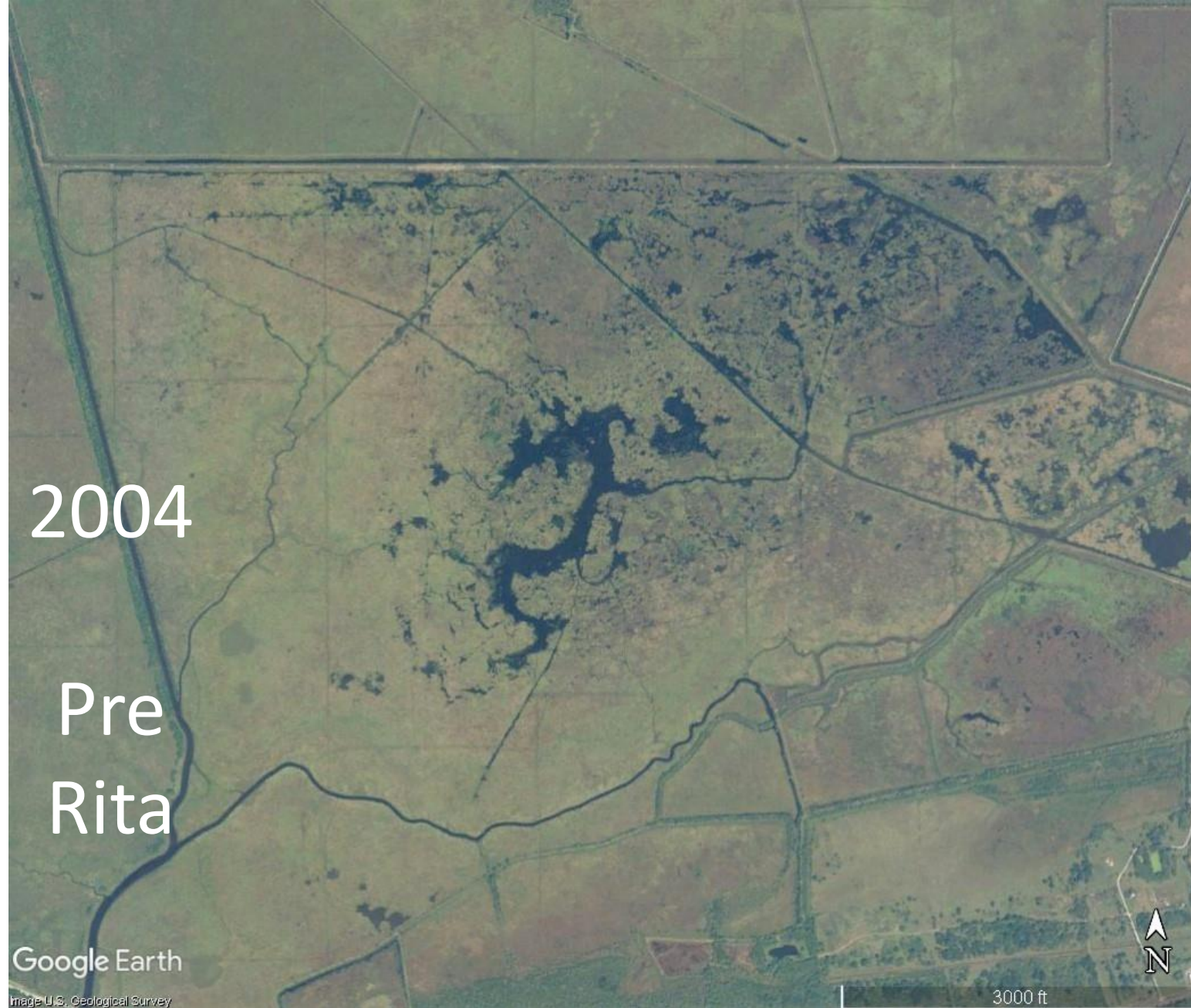
# Vermilion Parish Marsh Enhancement NAWCA Project



- ❖ Privately owned (Vermilion Corp. and others): leased for hunting, fishing, and other outdoor activities

- Initially damaged by Hurricane Rita, converting healthy marsh into shallow open water
- Continued deterioration due to subsidence & wave-induced erosion
- Man-made canal has contributed to marsh loss & altered hydrology
- **Goal:** Enhance habitat conditions via construction of 24,400 LF of earthen terraces and construction of a rock weir and earthen plug to improve hydrology. Project will create marsh habitat in open water, protect existing marsh and lessen erosion, and create suitable conditions for desirable plant communities







2020

Google Earth

Image U.S. Geological Survey

3000 ft





# Width of Breach



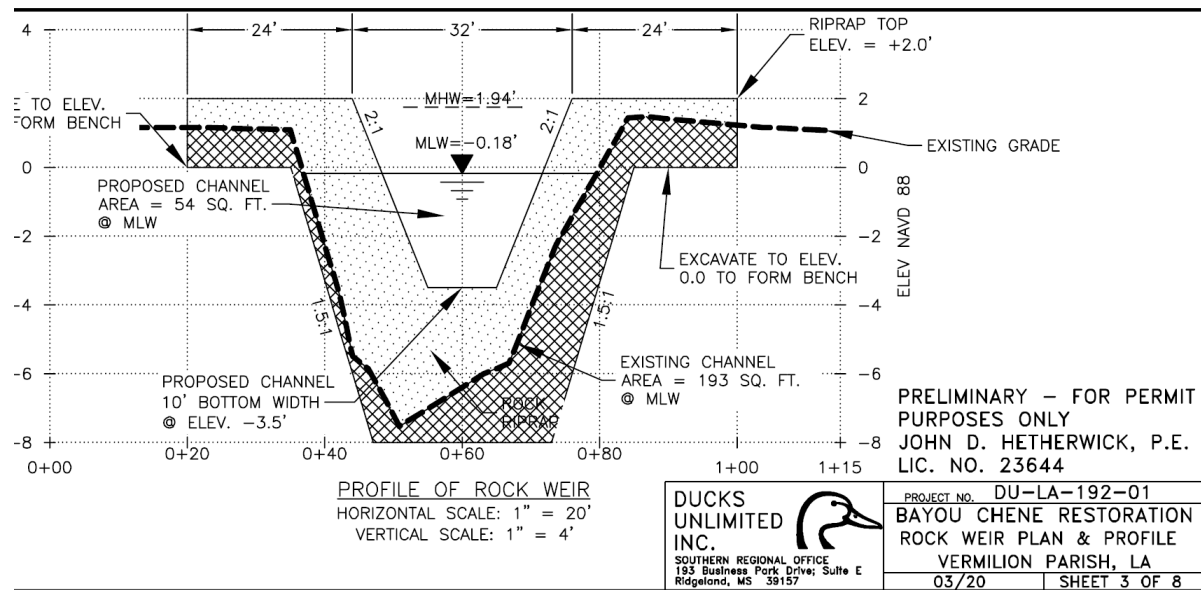
2014



2018

<10' to 35' wide in ~6 years

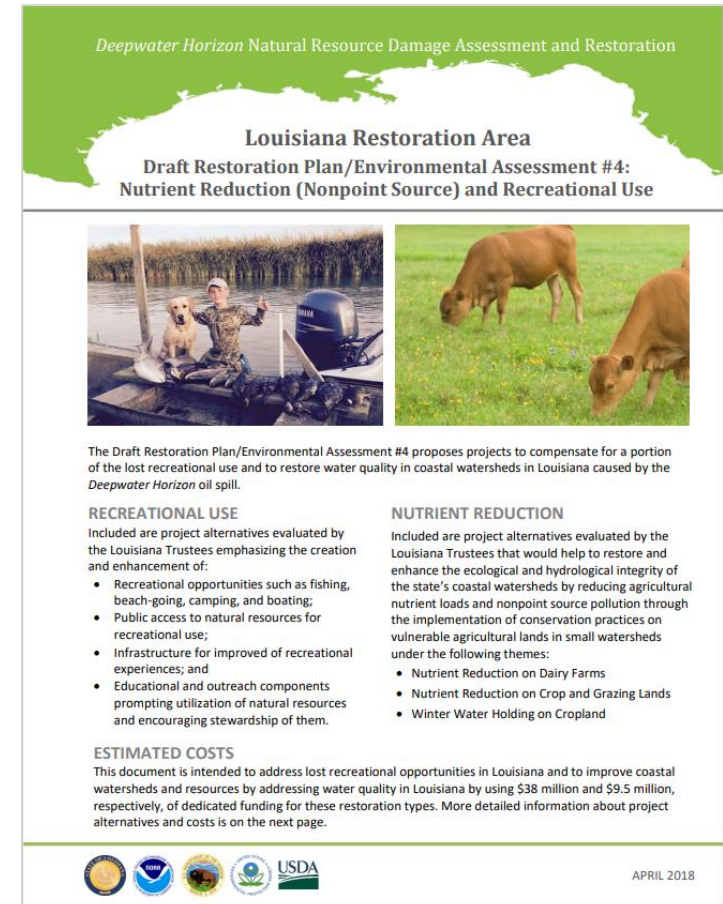






# Other DU Work

- Engineering Services
  - LA Watershed Initiative – Mermentau Basin Inundation Relief Project – C.H. Fenstermaker & Associates
- NRDA Nutrient Reduction (NRCS) – SW and SE LA (~\$5.3M)
- Louisiana Waterfowl Program
- Rice Stewardship Program





# Nutrient Reduction / MODU Habitat (SW LA)



## Water Quality – monthly grab samples

### Parameters:

- TSS
- Turbidity
- Nitrate
- Nitrite
- Phosphorus

## Projects - 286 Acres

Singletary - 130 Acres

Advanced Ag. – 40  
Acres

Thornwell Rice – 116  
Acres

\$30 per acre



## Mottled Duck surveys:

- Five surveys conducted by DU and LDWF staff
- Combination of drone and visual surveys
- Singletary ave. 7.5 MODU per survey
- Thornwell ave. 5.5 MODU per survey



# Crawfish Drainage Water Management (SW LA)



(320 Acres; \$15 per acre)







# Louisiana Waterfowl Project - South



## Private Lands Partnership:

FY19: Five projects for a total of 5,127 acres

FY20: Five projects for a total of 1,549 acres

FY21: Two projects for a total of 3,065 acres

Since 1992, LWP has enhanced over 100,000 acres in Louisiana







# DU Rice Stewardship FY 2021

- Enhanced 2,238 acres through pipe drop cost share program
- Developed 50 plans (wildlife, nutrient, water management)
- 169 winter water habitat certifications
- 46 resources inventories
- Processed 31 MBHI and CSP applications to improve waterfowl habitat in SWLA
- 40 pumping plant tests to improve irrigation efficiency
- Installed wood duck boxes in SW Louisiana





## DU Mission

**“Ducks Unlimited Conserves, Restores, and Manages Wetlands and Associated habitats for North America’s Waterfowl. These Habitats also Benefit other Wildlife and People.”**



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# Questions?