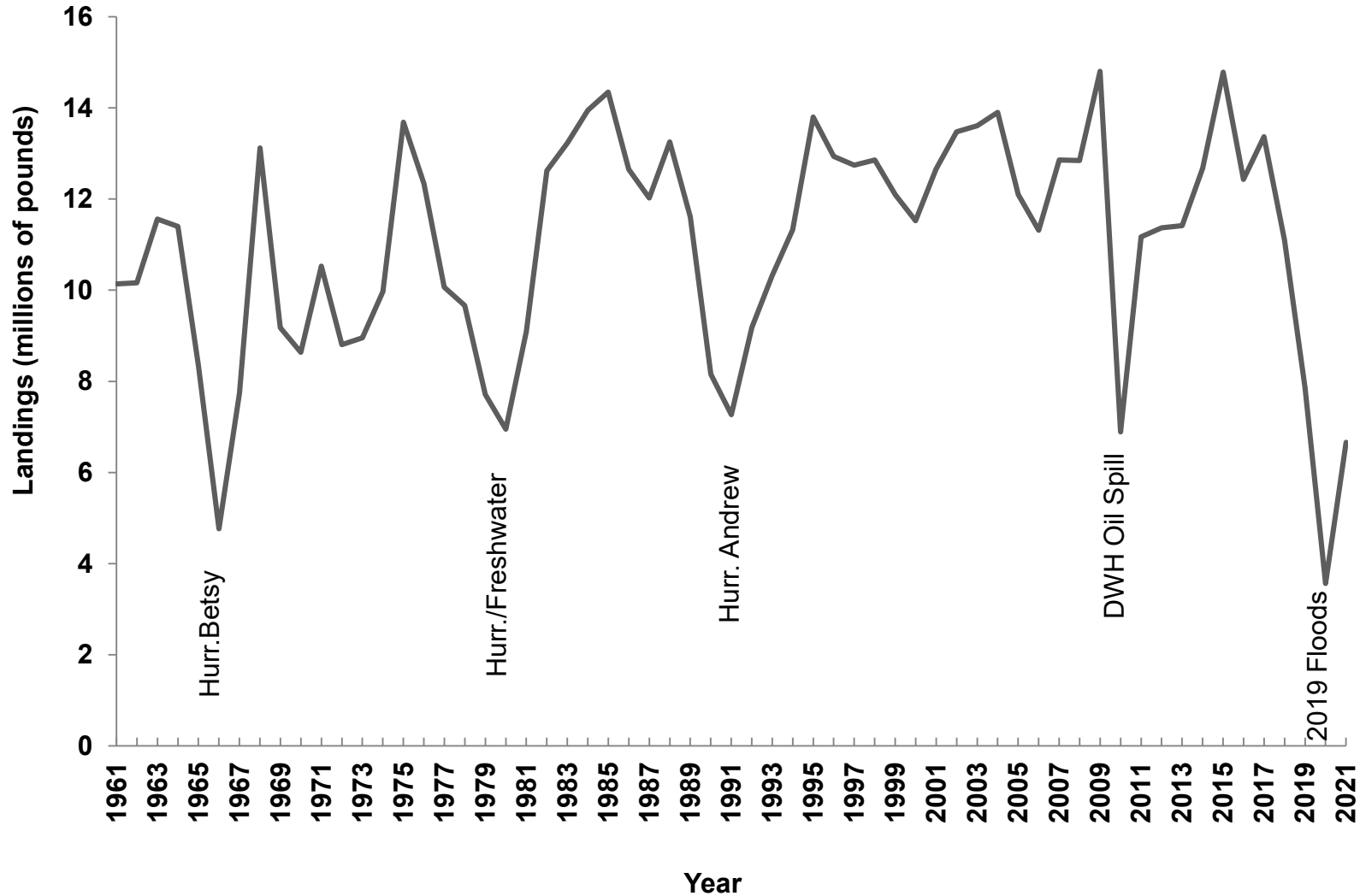


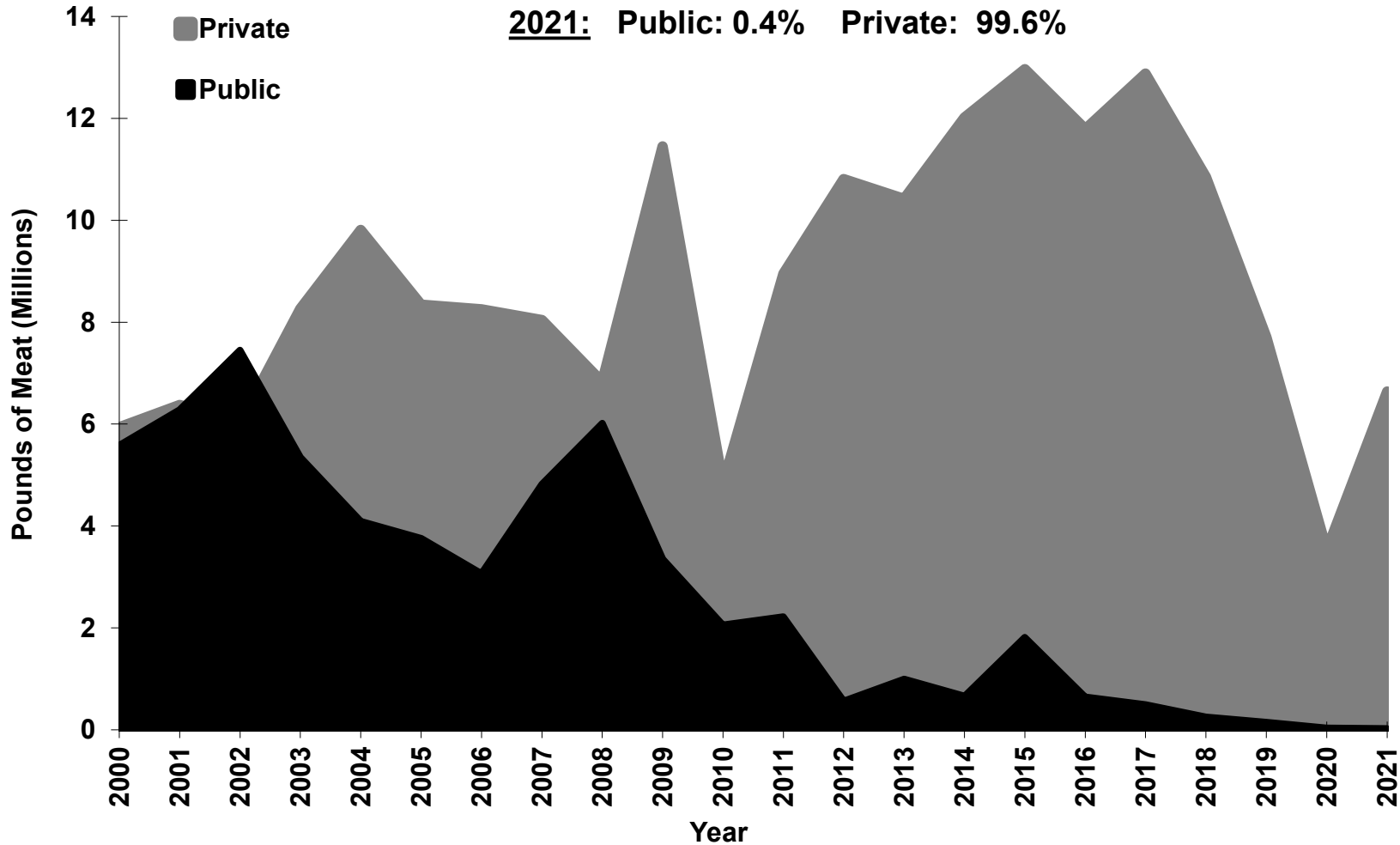
Louisiana Oyster Updates

Carolina Bourque | GSMFC Meeting | October 17, 2022

Historical Louisiana Commercial Oyster Landings



Oyster Commercial Landings: Public vs. Private



Note: Long-term average (2001 to 2020) for private landings is 9 million pounds. LTA for public landings is 2.7 million pounds.



Louisiana Oyster Strategic Plan

- Draft submitted to legislators Dec 2020
- Overall Goals
 - Increase oyster density
 - Expand oyster resource resilience:
 - Habitat improvement projects
 - Development and protection of spawning reefs
 - Research to develop a low-salinity tolerant oyster
 - Increase resilience in oyster industry:
 - Rehabilitate existing leases
 - Develop new areas for leasing opportunities
 - Expand alternative oyster culture (AOC) options
- Estimated cost is \$132.3 million (and rising)

<https://www.wlf.louisiana.gov/assets/Resources/Publications/Oyster/Final-Draft---Oyster-Strategic-Plan---12.30.20.pdf> .



Louisiana Oyster Strategic Plan

Initiatives

1. Traditional Cultch Planting and Water-Bottom Mapping
2. Cultch Planting with Remote-Set Oysters
3. Development of Spawning Stock Sanctuary Network
4. Expansion of Alternative Oyster Aquaculture
5. Private Oyster Lease Rehabilitation (POLR) Program
6. Expansion of Hydrologic Monitoring
7. Evaluation of Leases Incapable of Oyster Production
8. Establishment of Cultivation and Production Requirements on Leases
9. Establishment of New Public Oyster Areas
10. Mississippi River Gulf Outlet Hydrologic Evaluation (MRGO)
11. Evaluation of the Restoration Bohemia Spillway Water Control Structure
12. Research and Development

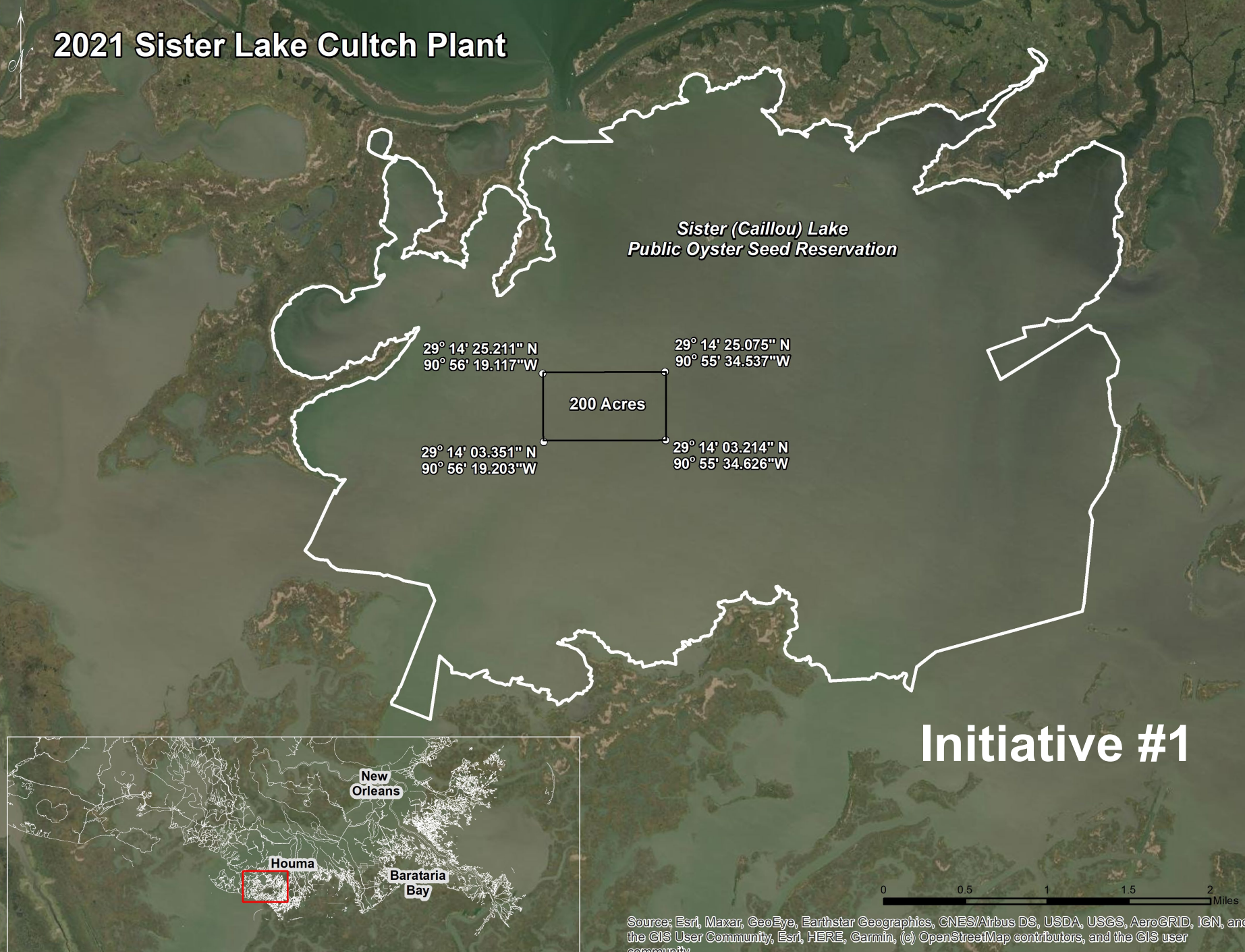


2021 Sister Lake Cultch Plant

- 200 acres
- Crushed limestone (~4")
- 29,500 cubic yards
- Funded through NRDA



2021 Sister Lake Cultch Plant



*Sister (Caillou) Lake
Public Oyster Seed Reservation*

29° 14' 25.211" N
90° 56' 19.117" W

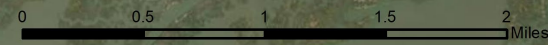
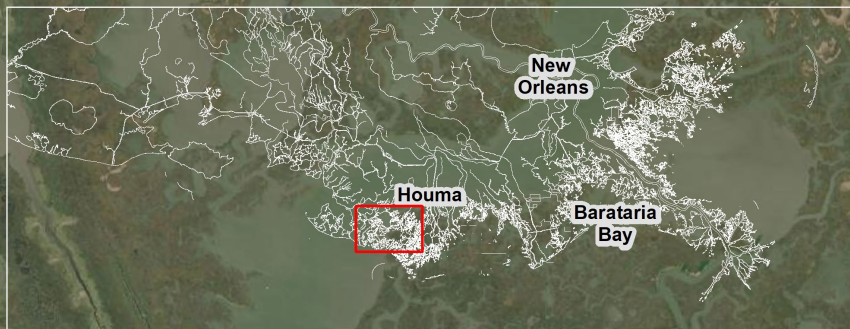
29° 14' 25.075" N
90° 55' 34.537" W

200 Acres

29° 14' 03.351" N
90° 56' 19.203" W

29° 14' 03.214" N
90° 55' 34.626" W

Initiative #1






Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

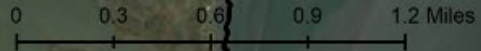


2022 Drum Bay Oyster Cultch Plants

Drum Bay Cultch Plants -



-  Drum Bay Cultch Plants
-  Cultch Plant Planning Areas
-  Public Oyster Seed Grounds



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Monitoring 2021 Sister Lake CP

3 months post-construction

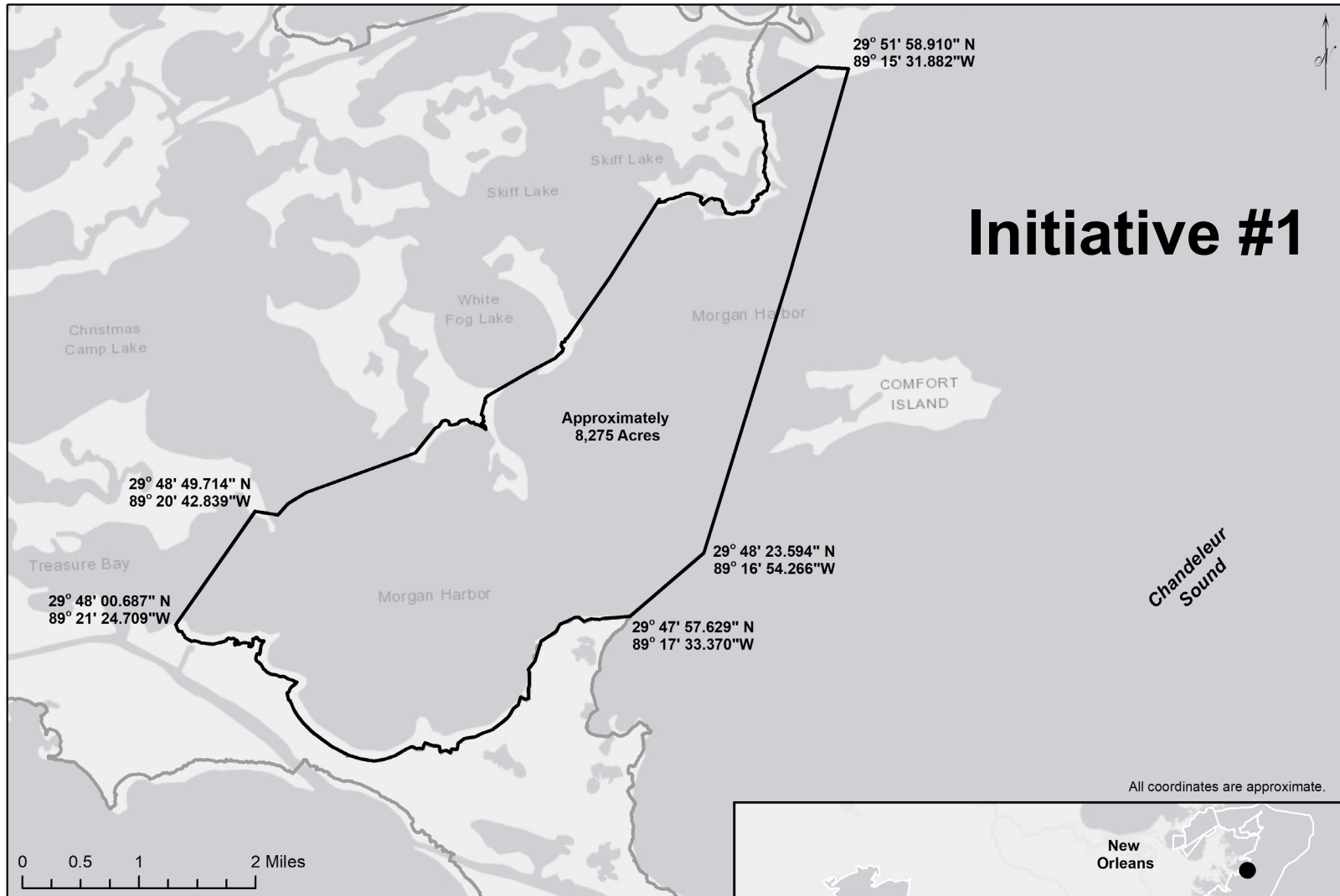


6 months post-construction



Initiative #1

Water Bottom Survey – Morgan Harbor



**2021 Morgan Harbor
Water Bottom Survey**



Hatchery Spat-on-Shell (SoS)

- Producing and setting 4 million spat set on recycled oyster shells
- Transport and Deployments in 2022 to different protected reefs



Initiative #2



Hatchery Spat-on-Shell (SoS)

- Transport and Deployments in 2022 to different protected reefs



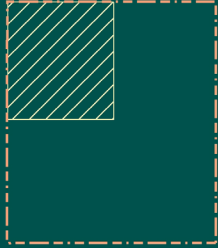
Initiative #2

2021 Mozambique Bay Broodstock Reef



Approximate Reef Corners:

29° 37' 13.740" N, 89° 29' 24.860" W
29° 37' 13.608" N, 89° 29' 21.296" W
29° 37' 10.188" N, 89° 29' 21.415" W
29° 37' 10.309" N, 89° 29' 24.955" W



Black Bay

Mozambique Point

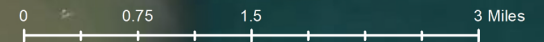
2.5 Acre Broodstock Reef
(see top inset)

Breton Sound

Initiative #3



- Approximate Reef Location
- 10-Acre Permit Area
- Public Oyster Seed Ground Boundary



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

Alternative Oyster Culture Expansion

- Louisiana Sea Grant contract
- <https://www.laseafoodfuture.com/aoc>

Alternative Oyster Culture

Grants for Enhancement and Expansion of **AOC**

Alternative Oyster Culture

AOC Resources

Salinity and LDH Closure Maps

LSG Statement of Purpose

Louisiana Sea Grant (LSG) has received a \$3 million grant from the Louisiana Department of Wildlife and Fisheries (LDWF) to expand alternative oyster culture (AOC) throughout the coast. Of the total, \$1.8 million is designated for grants awarded by Iberia Development Foundation (IDF), a 501-C3 organization, to selected AOC operators.

Identified as an important adaptation strategy by people in the oyster industry during Louisiana's Seafood Future [workshops and surveys](#), this AOC grant program is in response to industry suggestion; offering direct economic development assistance.

- The first round of Alternative Oyster Culture (AOC) grants, totaling funding 9 nurseries, 16 grow-out, 4 parks, and 1 private hatchery.

Initiative #4



Louisiana Alternative Oyster Culture Updates GSMFC Molluscan Shellfish Committee

- The Second round of state-wide grant funding selected oyster farm grants up to \$45,000 for interested oyster fishers. Nine (9) new farmers were chosen in the second round.
- Cameron Park contract for \$100K grant was signed with LSG/IDF. The 48-acre Cameron Parish Port's Park CUP was filed with LaDNR. There will be fifteen (15) 2-acre lease plots in Park with a 1-acre area set aside for common use by all farmers.
- Louisiana Sea Grant (LSG) received 10 applications in a 3rd-round competition for Cameron oystermen for the 5 grow-out grants that are available. Selection will occur by first Week of November.
- Louisiana Sea Grant (LSG) held a meeting with Cameron oystermen interested in possibly leasing a farm plot in the Park.
- Louisiana Fisheries Forward, a Louisiana Department of Wildlife and Fisheries and Louisiana Sea Grant collaborative program, is hosting a series of educational oyster industry workshops and has streamlined online educational resources on Alternative Oyster Culture.

AWARDED GRANTS

	Nursery	Grow-Out	Hatchery	Park
First Round (N=24 applied)	5	6	1	2
Second Round (N=25)	4	9	0	2 (in Progress)
TOTAL FUNDED	9	15	1	4
		<i>Funds Allocated To Date = \$1,435,000</i>		
Third Round <i>(Pending) (N = 10)</i>	0	5	0	0
Total Acres Available	Pre-Grant ≈ 40ac		Additional To-Date ≈ 56ac	
<i>(available to AOC farms, but not all in actual Production)</i>		<i>(IN PROGRESS) ≈ 104ac</i>		

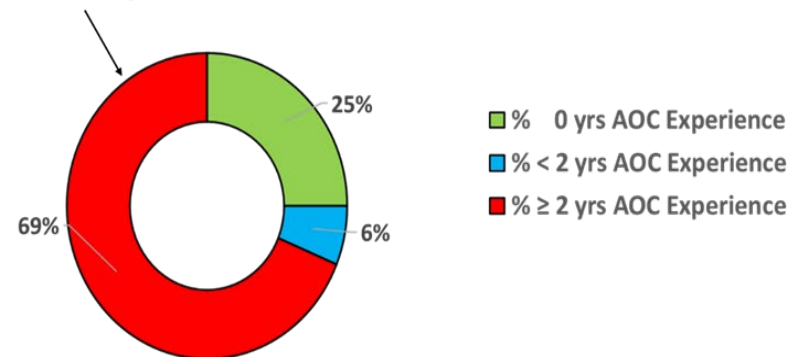
<https://www.laseafoodfuture.com/aoc>

Info on AOC Grant Program

<https://www.lafisheriesforward.org/oyster/>

Info on off-bottom oyster culture techniques

Farmers Awarded Grants To-Date = 16
 # Traditional Oystermen Funded = 6 (7 applied)
 Avg. Age of Oyster farmer = 45 (26-67)
 Yrs. Traditional Oyster Exp. = 0-36 yrs.
 Yrs. AOC Experience = 0-9 yrs.



Expansion of Hydrologic Monitoring



Initiative #6



Oysters Tolerant to Low Salinity

- Contract with UL Lafayette
- LO-SPAT project
- Selective breeding of oysters from populations known to survive extended freshwater events
- Genetic fingerprinting to develop a line of low salinity tolerant oysters for use in future breeding programs
- <https://www.lospat.org/>

Initiative #12



QUESTIONS?



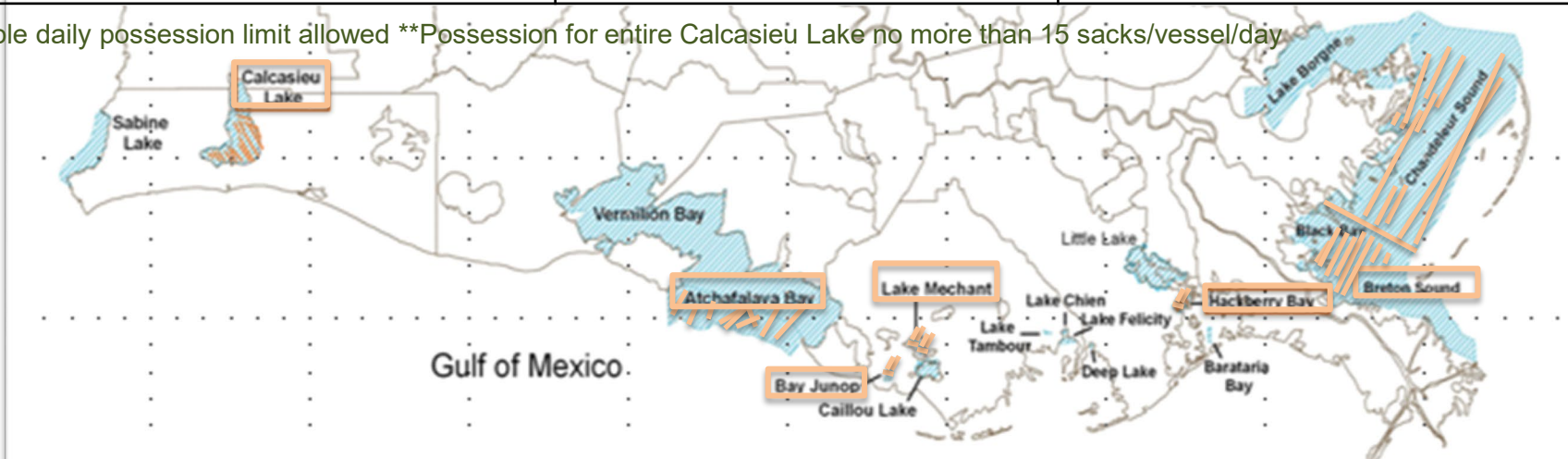
Carolina Bourque
LDWF Oyster Program
337-735-8726
cbourque@wlf.la.gov



2022/2023 Oyster Season

Area/Public Ground	Season Dates	Limit
East of MS River, North of MRGO	October 18, 2022 - April 1, 2023 (sacking only)	30 sacks/vessel/day* <i>New cultch plant area closed</i>
East of MS River, South of MRGO	October 18, 2022 - April 1, 2023 (sacking only)	30 sacks/vessel/day*
Bay Junop, Lake Mechant, Hackberry Bay, Vermilion /Atchafalaya Bay	Open October 17 (bedding only)	No more than 15% of non-living material allowed in bedding loads
Bay Junop, Lake Mechant, Hackberry Bay, Vermilion/Atchafalaya Bay	October 18, 2022 - April 1, 2023 (sacking only)	30 sacks/vessel/day* (take and possession)
Sister Lake, Lake Tambour, Chien, Felicity, Deep Lake, Little Lake, Barataria Bay	No Season	No Season
Calcasieu Lake (West Cove)	Open October 15, 2022	15 sacks/vessel/day ** (take and possession)
Calcasieu Lake (East Side)	Open January 1, 2023	5 sacks/vessel/day ** (take and possession)

* Double daily possession limit allowed **Possession for entire Calcasieu Lake no more than 15 sacks/vessel/day



Oyster Harvest Closure Criteria

Louisiana Oyster Fisheries Management Plan (2016)

1. Biological sampling indicates the presence of a recent successful *spat set* in an area with a high probability of survival in the absence of fishing
2. Harvest fraction exceeds *50 percent* of available oyster resource in an area
3. Harvest fraction exceeds *15 percent* of available oyster resource in Calcasieu Lake
4. Harvest exceeds the thresholds established by the *shell budget model*
5. *Enforcement issues*
6. Significant *mortality* reduces oyster stock size in excess of 50 percent of the original estimated stock size.

