



2022 LDWF Oyster Strategic Updates

Patrick Banks | CPRA Board Meeting | August 17, 2022

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

*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



0 0.5 1 1.5 2 Miles

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

Monitoring 2021 Sister Lake CP

3 months post-construction

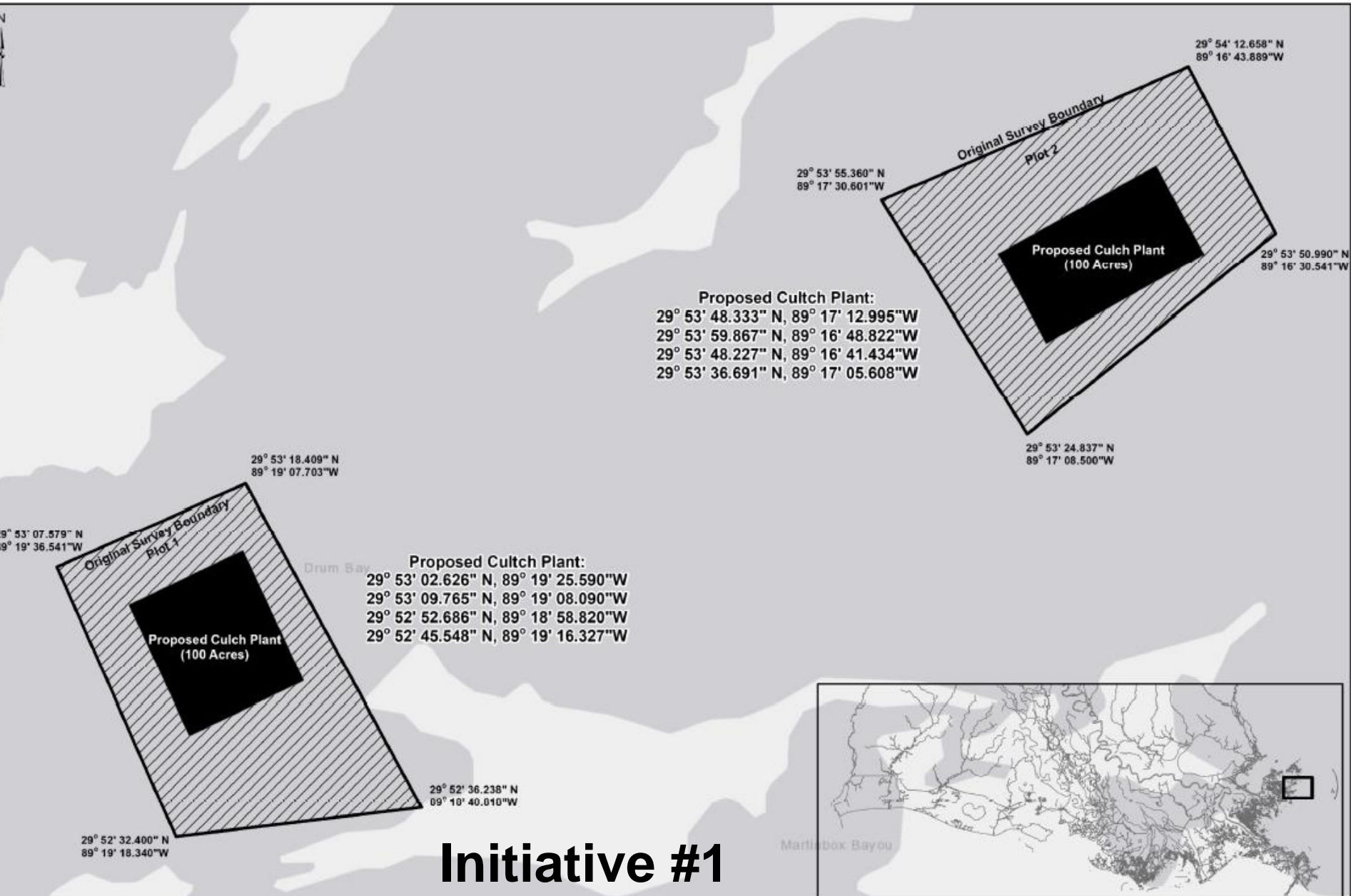


6 months post-construction



Initiative #1

Drum Bay Cultch Plant(s)



Hatchery Spat-on-Shell (SoS)

- 4 million oyster spat set on recycled oyster shells
- Multiple deployments in 2022 to different protected reefs



Initiative #2



Hatchery Spat-on-Shell (SoS)



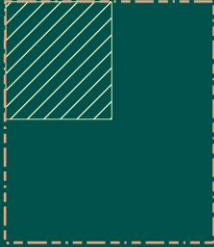
Initiative #2

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

0 0.75 1.5 3 Miles

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

Alternative Oyster
Culture

AOC Resources

Salinity and LDH Closure
Maps

LSG Statement of
Purpose

Grants for Enhancement and Expansion of **AOC**

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 \$330,000: 6 grow out farms, 4 nurseries, 1 hatchery and 1 park.
- The second round of Alternative Oyster Culture (AOC) grant funding is under revision (applications received).

Initiative #4

Private Oyster Lease Rehabilitation (POLR) Program



Initiative #5



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



Financials

Initiative	Budget	Spent*	Remaining
1 – Cultch Planting & Mapping	\$13.6	\$5.3	\$8.3
2 – Spat-On-Shell Planting	\$12.0	\$1.3	\$10.7
3 – Spawning Stock Sanctuary Network	\$13.8	\$2.0	\$11.8
4 – Alternative Oyster Culture Expansion	\$10.0	\$3.0	\$7.0
5 – Private Lease Rehabilitation	\$12.0	\$1.0	\$11.0
6 – Hydrologic Monitoring Expansion	\$5.0	\$0.0	\$5.0
7 – Private Lease Productivity Evaluation	\$5.0	\$0.0	\$5.0
8 – Establish Lease Cultivation Requirements	\$5.0	\$0.0	\$5.0
9 – Establish New Public Oyster Areas	\$5.0	\$0.0	\$5.0
10 – MRGO Hydrologic Evaluation	\$1.6	\$0.0	\$1.6
11 – Bohemia Restoration Evaluation	\$24.3	\$0.0	\$24.3
12 – Research & Development	\$25.0	\$14.9	\$10.1
TOTALS	\$132.3	\$27.5	\$104.8

* Or, in-progress

Preliminary – Subject to Change



Progress Towards Meeting Objectives

- Achieve an average density of 20 seed-sized oysters/m²
 - Achieved on recent Sister Lake Cultch Plant
- Enhance at least 1,000 acres of existing reef habitat
 - Constructed cultch plants totaling 400 acres to-date
- Create/maintain at least 40 acres of non-harvest, spawning stock sanctuary reefs
 - Created 8.8 acres in four locations to-date
- Maintain presence of spawning-sized oysters on at least one reef per basin each year
- Research and develop a low-salinity tolerant oyster
 - In-progress by ULL
- Execute at least 100 new leases
 - To come later as moratorium is fully-lifted
- Identify at least 100 acres suitable for new AOC farms
- Install and operate at least 2 new data collection platforms (DCPs)
 - In-progress by CPRA



In Summary

- Approximately 1.5 years into a 5-year plan
- Working diligently on 7 of 12 initiatives thus far
- Additional progress is dependent upon funding availability, especially flood disaster federal grant approval
- Good progress towards meeting measurable objectives of the strategic plan



QUESTIONS?

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