



Public Comments for Louisiana Oyster Management and Rehabilitation Strategic Plan Draft

Through December 11, 2020 11:59 p.m.



Coalition To Restore Coastal Louisiana

3801 Canal Street, Suite 325, New Orleans, LA 70119 • 504.264.6812
5615 Corporate Boulevard, Suite 600B, Baton Rouge, LA 70808 • 225.767.4181

December 3, 2020

Carolina Bourque
LDWF Oyster Program Manager
cbourque@wlf.la.gov

Re: Draft Louisiana Oyster Management and Rehabilitation Strategic Plan

Dear Ms. Bourque,

The Coalition to Restore Coastal Louisiana (CRCL) is the first coastal advocacy non-profit in Louisiana. The mission of CRCL is to drive bold, science-based action to sustain a dynamic coastal Louisiana through engagement and advocacy. We are writing to express our thoughts regarding the Oyster Management Plan and to address several issues that we believe LDWF should consider expanding in the plan.

A thriving oyster fishery is a critical element of the future coast we wish to see. We applaud the effort to work toward a future coast that includes large scale sediment diversions needed to stem land loss as well as a vibrant oyster industry. We appreciate the attempt to look forward to plan the efforts that will be required to make that possible with changing conditions.

The important of oysters for non-cultivation purposes

Oyster reefs were once a vast resource in the Gulf of Mexico. However, the removal of freshwater inputs, decades of intense oyster harvesting, shell mining, disease, and pollution have caused the loss of 50-89% of oyster reefs in the Gulf of Mexico (Beck et al. 2011). Today, remaining oyster reefs are critical for supporting fisheries and providing habitat. Structurally complex reefs provide high-quality habitat, oyster larvae, and spat that support the food-chain, and they enhance and clarify the water through filtration. Many managed fish species—including red drum, shrimp, and reef fish—rely on nearshore oyster reefs for habitat during their larval and juvenile stages of development. Over 170 species have been documented using living oyster reefs for habitat and feeding in the northern Gulf of Mexico.

As oyster larvae attach to hard structure, reefs can become living shorelines that will (1) restore historic oyster reefs, providing essential fish habitat (EFH) that will help increase fisheries production for red drum, shrimp, and reef fish, (2) enhance the sustainability of recreational fishing areas by providing new habitat and buffering existing habitat from erosion, (3) serve as a non-harvestable brood stock reef that produces larvae and increases oyster production in the adjacent public seed grounds, (4) filter nitrogen from the water supporting the food chain of the surrounding ecosystem, and (5) grow and respond to environmental changes in salinity, subsidence, and sea level rise, ensuring that a functional ecosystem is in place in the future.

Oysters are a critical part of a functioning ecosystem in Louisiana and the agency should consider all of their roles when allocating money through this plan, not just their uses as cultivation for private lease holders.

Our Coast, Our Future

www.CRCL.org

The use of oyster shell as a resource

Oyster spat can settle on any hard substrate to grow. Because of this, and for cost reasons, many times concrete is used as cultch. However, studies have shown that oyster shell is a preferable substrate for oyster spat to settle on. Additionally, shell is a natural resource that can be reused and recycled when it is removed from the water. We are fortunate in coastal Louisiana to have an abundant supply of this valuable raw material that can help us support our oyster industry and protect our coast.

With that in mind, CRCL has been running an oyster shell recycling program since 2014. We collect oyster shell from New Orleans restaurants, cure it, and then return it to the water to build oyster reefs for fisheries habitat and shoreline protection. Since the program's inception, we have created 3 reefs that have built 7,595 linear feet of oyster reef in the Biloxi Marsh, Pt. Au Chein, and Adams Bay in Barataria Bay. Now we're poised to construct 2 additional reefs, in Plaquemines Parish and at a second site in Pt. Au Chein. All of this has been made possible by the partnership and support of our 30+ participating restaurants, the LA Dept of Wildlife and Fisheries, Shell Oil, the National Fish and Wildlife foundation, Phillips 66, The Nature Conservancy and others. We thank LDWF for their helpful support of our program in the past.

To date we have recycled more than 10 million pounds of shell. This is a significant amount, but very modest relative to what is possible. The oyster industry is playing an important stewardship role in directing shell from many fishing operations and shucking houses back into the water, and the restaurants already participating in recycling are helping, including by sharing in the cost of recycling. But still much shell is being used for purposes that do not serve our fisheries or our coast. We wish to see oyster shell recycling expanded throughout the state and believe it is an important step toward directing ALL available oyster shell to work for us, rather than wasting it by sending it into our landfills. We propose that this could be accomplished by the expansion of shell collection in New Orleans, the establishment of shell collection programs in population centers including Baton Rouge, Lafayette and Lake Charles and the development of a drop-off program for oyster shells at multiple sites across the coastal parishes.

The draft Oyster Management Plan specifically highlights the potential benefits of recycled shell for advancing two proposed initiatives in the plan:

Initiative 1: Traditional Cultch Planting and Water-Bottom Mapping specifically mentions oyster shell recycling noting "Recycled oyster shell has been shown to be the ideal substrate for seeding cultch, supporting the need for oyster shell recycling programs. Discarded oyster shells added back into the water strategically can serve the dual purpose of restoring coastal wetlands that can protect the coastline from storms and supporting Louisiana's oyster fisheries."

Initiative 3: Development of Spawning Stock Sanctuary Network "could be assisted by coastal restoration projects for shoreline protection (e.g. living shorelines, oyster recycling programs) that are placed in productive oyster areas, benefiting both natural reefs and private oyster leases."

We also note the potential contribution of recycled shell to Initiative 2, which CRCL supports:

Initiative 2: Cultch Planting with Remote-Set Oysters - This initiative offers an avenue to address the current state of the public grounds which have been in continual degradation as well as the diminished supply of harvestable oysters. This trend is clearly depicted in the most recent stock assessment reports where in the mid-1990s data shows that approximately 40% of harvested

oysters came from public grounds and that declining to less than 5% in recent years (see figure 1 below). Cultch planting with remote-set oysters may be catalytic to repair this drastic reduction in harvestable oysters on public grounds. If coupled with a management plan to allow the set oysters to grow to market size this could reverse the trend. If successful, this may allow the smaller operating oyster harvesters, those with few to no leases operating with one boat who were most negatively impacted due to this decline, to again be able to secure some income from this once plentiful public resource. We recommend that remote setting occur on recycled oyster shells so that material is being returned to the environment and since the unique shape of oyster shells offers a superior natural surface when remote setting. Additionally, subsequent natural spawn events may have a higher recruitment to the cultch that remains after the planting since shell is generally regarded as the ideal material.

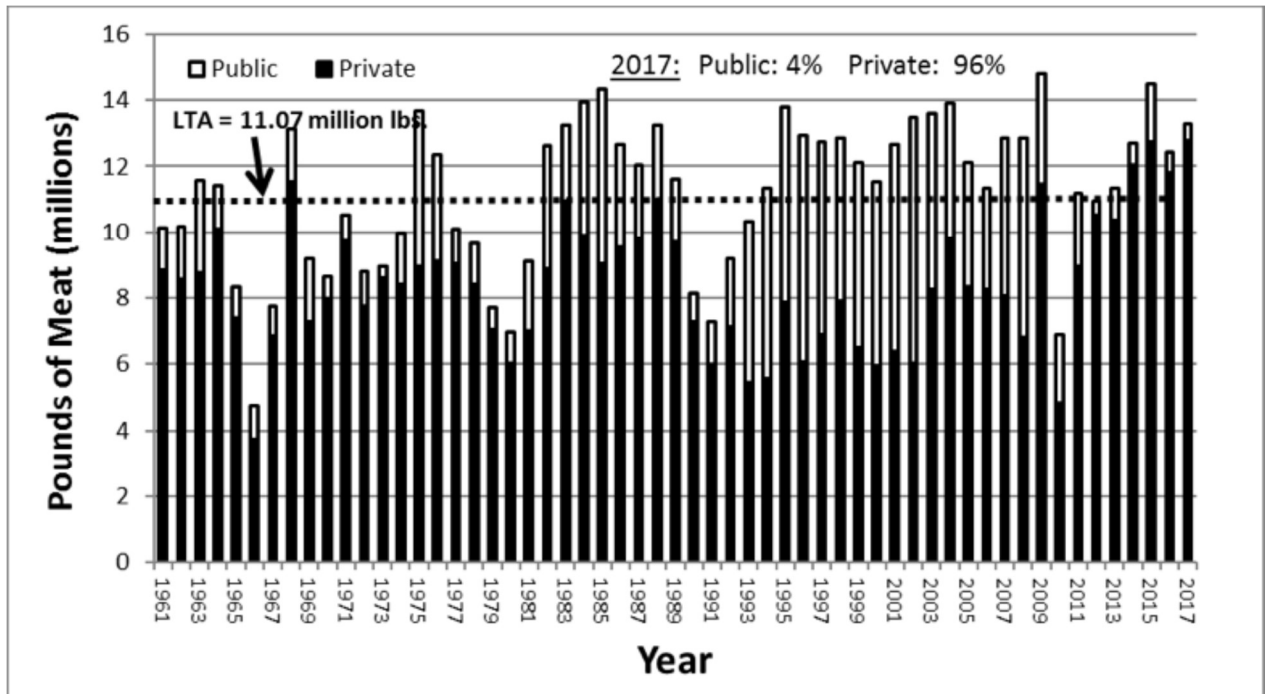


Figure 1. Historical Louisiana oyster landings for public oyster areas and private oyster leases, 1961-2017 (LDWF – Louisiana Oyster: 2018 Stock Assessment Report of the Public Oyster Seed Grounds and Reservations of Louisiana).

CRCL is pleased to see the potential for the use of recycled shell included in the plan in these ways. We would be happy to work with LDWF and other agencies to expand our program with the intention of providing more shell to LDWF for Initiative 1 and Initiative 3 of the Oyster Plan to advance the coastal resilience strategies being developed pursuant to 2020 Executive Order on Coastal Resilience in support of the state's Coastal Master Plan.

We congratulate LDWF on the completion of this important report and we look forward to working with you on its implementation.

Sincerely,

Kimberly Davis Reyher

Kimberly Davis Reyher
Executive Director



December 3, 2020

To: Louisiana Department of Wildlife & Fisheries
Carolina Bourque, Oyster Program Manager
cbourque@wlf.la.gov

RE: Comments on the Draft *Oyster Management and Rehabilitation Strategic Plan* & Altering the Mississippi River Gulf Outlet Rock Dam

Dear Ms. Bourque,

The MRGO Must Go Coalition has been working since 2006 to restore the ecosystem impacted by the Mississippi River Gulf Outlet (MRGO) shipping channel. We are writing to express opposition to the proposed opening of the MRGO rock dam at Bayou la Loutre. Science-based decision-making is paramount; a clear understanding of the effects of altering the structure is imperative. The rock dam structure has had significant and measurable benefits for ecologic recovery and community resiliency by re-establishing the natural hydrology, and thereby, helping to re-build the natural lines of defense critical to the region's sustainability. Our member organizations and supporters would strongly oppose seeing these benefits lost without well-founded decisions that contribute to the goal of coastal recovery and restoration.

The MRGO was a prolonged and catastrophic project, destroying and degrading 1.2 million acres of protective marsh, swamps and other bodies of water in the Pontchartrain Basin. This destruction proved deadly as surge along the channel led to decimation of communities during Hurricane Katrina. Some communities along the MRGO, in St. Bernard Parish and New Orleans, are still working to fully recover.

Over a decade of empirical evidence collected by agencies and coastal scientists shows the rock dam to be effective in bringing historical salinity gradients back to over one million acres of coastal habitat – from Maurepas Swamp to the Golden Triangle to Biloxi Marsh. Reopening the flow of water through the MRGO closure would be a regressive step toward conditions that contributed to the degradation of these wetlands.

What do conditions look like on our coast a decade post-closure of the MRGO?

- The rock dam allowed oysters to re-establish the historical reefs (pre-MRGO) in Biloxi Marsh. The suggested goal of re-opening the rock dam is to promote oyster production in Lake Borgne, but this is not where oysters naturally occurred prior to the MRGO. Even if these unnatural habitat conditions were achieved by re-opening the rock dam, it could only be at the expense of increasing salinity down estuary and threatening oyster beds that are currently being propagated and harvested in the Biloxi Marsh. This undermines the plan's extensive investment to further enhance oyster habitat in the Biloxi Marsh. In other words, re-opening of the rock dam to establish oysters in Lake Borgne is in direct

conflict with the remaining strategic plan to enhance oysters in the Biloxi Marsh and would result in a wasted investment.

- According to the Corps of Engineers, the Biloxi Marsh is a “critical landscape feature” that helps keep the Gulf of Mexico out of Lake Borgne, thereby reducing storm surge impacts on the levee system. The ability of oysters to re-establish throughout the marsh and for new reefs to be built is essential to the integrity of the Biloxi Marsh.
- The closure is helping to revive swamps critical to storm surge protection for the Capitol Region and regionally around Lake Pontchartrain. In Maurepas Swamp, cypress tree plantings that could not survive pre-closure now see 80% survival rates (very high), according to the Pontchartrain conservancy, which has planted with its partners, including member organization Coalition to Restore Coastal Louisiana, over 36,000 cypress trees in that swamp. These coastal swamps have a renewed ability to thrive. These conditions are supporting the potential recovery of extensive wetland areas within LDWF’s Wildlife Management Areas (Joyce, Manchac and Maurepas WMAs). For these reasons, LDWF recently conducted test cypress planting on the WMAs.
- *Rangia* clams have returned to the bottom of Lake Borgne. The live clams are an important food source (such as blue crab) and improve water quality to maintain the health and integrity of the estuary. *Rangia* clam shell is an important source of natural shoreline armoring. While the MRGO was open, the absence of *Rangia* clams exacerbated erosion along Lake Borgne’s shoreline. The Biloxi Marsh LLC recognizes the significance of clam recovery to protect their land, including land leased to LDWF as the Biloxi WMA.

LDWF’s data* demonstrate that the MRGO channel that breached the Bayou la Loutre Ridge caused extreme saltwater intrusion, and that the dam dramatically reduced this saltwater intrusion. The siting of the rock dam was to specifically to re-establish the natural hydrologic barrier provided by the Bayou la Loutre ridge to negate this extreme saltwater intrusion, and it has proved successful.

Any re-opening creates an unnatural exchange with unprecedented consequences. With a new opening of the rock dam, water will inevitably flow both ways through the dam. In general, some higher salinity water will flow inward, and lower salinity water will flow outward. Higher salinity water moving inward may exacerbate stratification and hypoxia. Lower salinity outside the rock dam will likely also freshen the system seaward of the rock dam and threaten commercial oyster beds that are thriving in Lake Athanasio. The idea of opening the rock dam to ameliorate Bonnet Carre Spillway’s freshwater’s impact to oysters could, instead, produce the exact opposite effect by harming oyster beds that actually survived the extreme double spillway openings in 2019 in Lake Athanasio.**

In the aftermath of Hurricane Katrina, over 70,000 public comments supporting strong restoration efforts in the MRGO ecosystem were submitted to decision-makers. We learned after Katrina that we need our coast to protect our levees. With the MRGO closure, we have laid the foundation for more effective restoration of marsh, swamp, and oyster reefs that provide storm protection to over one million people in the region. Hundreds of millions of dollars in restoration projects are in planning or construction in the MRGO ecosystem area and may be jeopardized by opening the dam. Opening the MRGO would be a gravely irresponsible and harmful decision without rigorous study and mitigation of these potential negative effects.

Thank you for your consideration,

MRGO Must Go Coalition

American Rivers
Citizens Against Widening the Industrial Canal
Coalition to Restore Coastal Louisiana
Environmental Defense Fund
Global Green
Healthy Gulf
Holy Cross Neighborhood Association
Lake Pontchartrain Basin Foundation
Levees.org
Louisiana Environmental Action Network
Louisiana Wildlife Federation
Lower Mississippi Riverkeeper
Lower Ninth Ward Center for Sustainable Engagement and Development
Mary Queen of Vietnam Community Development Corporation
National Audubon Society
National Wildlife Federation
Sierra Club – Delta Chapter

Additional signers:

350 New Orleans
A Community Voice
Audubon Louisiana
Deep South Center for Environmental Justice
G. Paul Kemp, PhD
John W. Day, PhD
Justice & Beyond
lowernine.org

**An Overview of LDWF data collected in the Vicinity of Lake Pontchartrain and lake Borgne from 2004 to 2017, as it related to the MRGO Rock Dam Closure in 2009, LDWF 2018*

***Habitat Suitability Analyses for the eastern Oyster, Crassostrea virginica, in the Pontchartrain Basin estuary, Southeast Louisiana, in 2019, Pontchartrain Conservancy*

Cc:

Mark Wingate, USACE

Chip Kline, CPRA

Bren Haase, CPRA

Meg Bankston, Office of the Governor

Keith Lovell, DNR



December 4, 2020

Carolina Bourque, Oyster Program Manager
Office of Fisheries
Louisiana Department of Wildlife and Fisheries
P.O. Box 98000
Baton Rouge, LA 70898

RE: Draft Louisiana Oyster Management and Rehabilitation Strategic Plan

Dear Ms. Bourque,

Please accept these comments on behalf of The Pew Charitable Trusts (Pew) regarding the draft Louisiana Oyster Management and Rehabilitation Strategic Plan. This Plan seeks to increase oyster availability on public oyster areas, expand oyster resource and industry resilience, increase hydrological monitoring of oyster areas through 12 initiatives and identify needed funding resources. We appreciate the comprehensive approach taken in the Strategic Plan and particularly support the initiatives that promote increasing oyster habitat, biological productivity and resiliency. Notably, the intent and purpose of many of the initiatives overlap. Better connectivity among them could be more clearly drawn to maximize funding and implementation efficiencies.

Specifically, our primary recommendations for developing and implementing the Strategic Plan include:

- The top priority in the goals and objectives should be to increase and sustain oyster habitat and biological production to provide the full suite of ecosystem services, including an abundant population that can also support a sustainable fishery. As such, oysters in the public areas should be restored and managed primarily as crucial habitat for a wide range of marine species.
- Funding and implementation strategies should prioritize enhancing oyster habitat in public areas and increasing their footprint and resilience through a network of broodstock reefs (i.e., spawning stock sanctuaries). This should include funding monitoring, model development and mapping projects across initiatives to help determine optimal sites for broodstock reefs.
- New management and restoration policies may be needed to ensure the success of a broodstock sanctuary network. These could include creating a new regulatory category to allow spawning reef sanctuaries full protection from harvest.
- Shell retention and recycling programs should be created and expanded through regulatory and/or funding mechanisms to generate much needed substrate for cultch planting, restoration and spawning reef enhancement to achieve multiple initiatives.

Abundant oyster populations are vital to healthy coastal ecosystems and the vibrant seafood industry that is so important to Louisiana's and the Gulf's economy. Unfortunately, oyster

populations throughout the Gulf of Mexico, including Louisiana, are struggling, as is evident by the latest monitoring data. It is now more important than ever to fund science-based, comprehensive rehabilitation projects to help boost oyster recovery in Louisiana. The best way to increase and sustain oyster habitat productivity and resilience is to ensure sufficient oyster habitat remains intact. This requires ample substrate and no harvest or removal as proposed in a strategically located network of broodstock sanctuaries [Initiative 3].

Unharvested spawning reefs not only provide beneficial ecosystem services, they help replenish oysters in surrounding areas open to harvest through larvae dispersal. Spawning reefs provide substrate through shell accretion for oyster larvae to settle on and produce more larvae that can seed nearby reefs. This ecological connection is important for overall oyster recovery and sustainability. In this way, the unharvested spawning reefs can support other restoration efforts and directly contribute to the oyster fishery over time as they contribute to the productivity of the entire reef system.

Left undisturbed, oysters on spawning reefs can grow larger and older, producing more larvae and contributing more to ecosystem reproductive potential and recruitment. Importantly, reefs with multiple age classes that have a good balance of younger, smaller oysters (mostly male) with a high density of older, larger adults (mostly females) have higher recruitment potential. To achieve that balance, experts recommend maintaining spawning reefs (unharvested) for at least six years post-construction.¹ However, to maintain multiple age classes and a balanced size frequency distribution with a high density of adult oysters (e.g., >15 per square meter), no or very limited removal may be necessary.² On the other hand, high densities of mostly smaller and younger oysters may not be sufficient for reproduction efficiency.³

Over time, these spawning reefs will accrete shells, which maintain or increase the reef habitat remaining in the water. That allows oysters to accumulate at a rate that exceeds shell loss and sediment deposition. Greater accretion enhances reef height and complexity, which provides improved habitat quality. Higher reefs allow oysters to live above the seafloor and be less susceptible to depleted oxygen levels and avoid predation. Increased reef height also provides better shoreline protection and wave energy stabilization. In summary, reefs with oysters of varying size and age, positive shell accretion rates and increased height and coverage lead to a higher likelihood that reproduction contributes to recruitment at other nearby reefs (*i.e.*, in harvested areas).

Determining the optimal locations for spawning reefs is key to their success and requires high quality environmental data acquired through monitoring [Initiative 6], mapping [Initiative 1], cultch and remote-set oysters to boost initial productivity [Initiative 2], substrate generated

¹ Baggett, L.P., Powers, S.P., Brumbaugh, R.D., Coen, L.D., DeAngelis, B.M., Greene, J.K., Hancock, B.T., Morlock, S.M., Allen, B.L., Breitburg, D.L., Bushek, D., Grabowski, J.H., Grizzle, R.E., Grosholz, E.D., La Peyre, M.K., Luckenbach, M.W., McGraw, K.A., Piehler, M.F., Westby, S.R. and zu Ermgassen, P.S.E. (2015). *Guidelines for evaluating performance of oyster habitat restoration*. *Restoration Ecology* **23**, 737–745.

² *Restoration Goals, Quantitative Metrics and Assessment Protocols for Evaluating Success on Restored Oyster Reef Sanctuaries: Report of the Oyster Metrics Workgroup*, 32 pp. Submitted to the Sustainable Fisheries Goal Implementation Team of the Chesapeake Bay Program, December 2011. <http://www.oyster-restoration.org/chesapeake-bay-goals-metrics-and-assessment-protocols/>

³ Mann, R. and D.E. Evans. 1998. Estimation of oyster, *Crassostrea virginica*, standing stock, larval production, and advective loss in relation to observed recruitment in the James River, Virginia. *J. Shellfish Res.* 17: 239-253.

through shelling programs, and scientific research and modeling [Initiative 12]. Additionally, broodstock sanctuary reefs should be sited in areas that are permanently closed to harvest, which may require a change in regulations to allow for oyster restoration for the sole purpose of habitat creation and reproduction. Identifying the most appropriate mechanism to accomplish this could be incorporated into the guidance document proposed in Initiative 12.

Likewise, for Initiative 12, the primary focus area for research and development should be identifying areas for a network of sanctuary reefs in connectivity to public seed grounds, private lease areas, and possible aquaculture areas. This will require funding for data collection, mapping, and modeling identified in several of the initiatives. In particular, the connectivity of “up-estuary” areas identified in the Strategic Plan for potential spawning stock reefs should be verified with larval transport modeling and field observations. The strategy for identifying these areas should be addressed in any guidance document created under Initiative 12.

Projects and funding needs across initiatives should be integrated to focus on the highest priorities and maximize efficiencies. For instance, the siting of Aquaculture Parks (Initiative 4) could be done in conjunction with siting of sanctuary reefs, public seed grounds or private lease areas. This could facilitate the capture of larvae for recruit development and reef enhancement when diploids are used in off-bottom aquaculture operations. Research and modeling can help draw those connections (Initiatives 12 and 3, respectively).

Additionally, new or expanded shell recycling programs such as the one run by the Coalition to Restore Coastal Louisiana could be established or expanded under Initiative 1 to not only enhance substrate in public oyster areas but also to support development of spawning sanctuaries (Initiative 3). Potential regulatory and funding mechanisms, such as dealer or retail fee-based or tax credit systems, to enable long-term shell retention and recycling programs should be vetted and included in the guidance document proposed in Initiative 12. Well-run and funded shelling programs could then supplement many of the initiatives over the long-term, including cultch-planting and remote-setting in broodstock sanctuaries, public seed grounds and private lease areas.

Ultimately, the cumulative goals of the Strategic Plan’s initiatives primarily relate to increasing and maintaining healthy oyster habitat. This comprehensive approach can be accomplished with adequate funding, data and science and by ensuring the regulatory regime aligns with the objectives over the long term. Protecting and enhancing the resiliency of oyster habitat through the deliberate creation of a network of spawning reefs and managing oysters primarily as crucial habitat, rather than just a fishery, is paramount to maintaining abundant oysters and healthy coastal waters that can support a robust fishery.

We commend Louisiana for taking a bold and comprehensive approach to oyster management and rehabilitation. We look forward to working with the agency as it further develops and implements this Strategic Plan.

Thank you for considering these comments.

Sincerely,



Chad W. Hanson, Officer
Conserving Marine Life in the U.S.
The Pew Charitable Trusts

cc: Mr. Patrick Banks, Assistant Secretary for the LA Department of Wildlife and Fisheries



LDWF Draft Louisiana Oyster Management and Rehabilitation Strategic Plan

Public Comment from the City of New Orleans – Office of Resilience and Sustainability

Attn: Carolina Bourque, LDWF Oyster Program Manager; cbourque@wlf.la.gov

Submitted by: Katie Donahue, City of New Orleans Coastal Resilience Program Manager, kathleen.donahue@nola.gov

Overview:

- Oysters are a resource of cultural and economic importance to Louisiana and New Orleans in terms of hospitality and tourism.
- This kind of collaboration and interagency cooperation between Louisiana Oyster Task Force, the Coastal Protection and Restoration Authority (CPRA), and the Governor's Office of Coastal Activities is to be applauded, as is the goal to reduce the conflict between oyster production and coastal restoration efforts, which are both critical to our state.

Oyster Shell Recycling:

- New Orleans' restaurants have been leading the state in oyster shell recycling thanks to CRCL's Oyster Shell Recycling Program. To date the program has recycled more than 10 million pounds of shell from New Orleans restaurants.
- Recycled oyster shell has been shown to be the ideal substrate for seeding cultch. Discarded oyster shells added back into the water strategically can serve the dual purpose of restoring coastal wetlands that can protect the coastline from storms and supporting Louisiana's oyster fisheries.
- Recycled shell from New Orleans' restaurants has been used to build three living shoreline reefs in the Biloxi Marsh, Pt. Au Chein, and Adams Bay in Barataria Bay with two more reefs on the way. These reefs help to protect the marsh and wetland buffer that in turn protects coastal communities and coastal flood protection infrastructure like flood walls and levees.
- This program and others like it should be expanded to support the work outlined in Initiatives 1 and 3.

MRGO (Initiative 10):

- Any modifications to the existing rock dam must undergo significant scientific modeling to ensure that communities along the MRGO are not inadvertently being put at higher levels of risk or undermining the restoration progress that has been made over the last decade.
- Extensive hydrologic modeling under normal tidal conditions and hurricane storm conditions need to be evaluated as a prerequisite to begin considerations for 404 and 408 permits.
- Completed, ongoing and planned restoration projects in the Pontchartrain Basin, like Golden Triangle Marsh Creation and the recently awarded New Orleans East Landbridge living shoreline and marsh creation project, will have improved effectiveness because of salinity reduction provided by the rock dam. Any alteration proposals should be studied for their potential impact on restoration projects and the fragile ecosystems they aim to enhance and protect.
- The \$1.6M noted in the draft Oyster Management and Rehabilitation Strategic Plan will go some of the way to answering the many questions that will be required for this project to be properly vetted.

Bohemia Spillway (Initiative 11):

- Any modifications to Mardi Grass Pass or the larger Bohemia Spillway must undergo significant scientific modeling to thoroughly study any hydrologic changes within the area of influence of MGP.
 - Legal authority for control of the MGP and any needed restoration should be clarified before any further action.
-



December 2, 2020

Louisiana Department of Wildlife and Fisheries
Secretary Jack Montoucet
P.O. Box 98000
Baton Rouge, LA 70898

On behalf of the Louisiana Oyster Task Force ("LOTf"), I write to you regarding the Louisiana Oyster Management and Rehabilitation Strategic Plan ("Strategic Plan") and November 16, 2020 request for public input. As you are aware, Senate Concurrent Resolution No. 56 by Senator Hewitt mandated that Louisiana Department of Wildlife and Fisheries ("LDWF") and the Coastal Protection and Restoration Authority ("CPRA") develop the Strategic Plan and "coordinate all such efforts, planning, programs, and projects with oyster resource and industry stakeholders, including the Oyster Task Force." Senate Resolution No. 56 further mandated the Strategic Plan to be finalized by December 2020. The November 16, 2020 request for public input established a deadline of December 4, 2020 for the public and the LOTf to provide comments and recommendations regarding the Strategic Plan. This 18-day comment period, which includes the Thanksgiving holiday, severely limits the involvement of the public and LOTf's ability to assess the public comments and provide industry's perspective on the potential impacts of the draft Strategic Plan.

1. Objection to the Strategic Plan Drafting and Comment Process.

The LOTf objects to the process and manner by which LDWF and CPRA drafted the Strategic Plan and sought public comments. The LOTf was not involved in the development and drafting of the Strategic Plan. LDWF representatives have indicated that the Strategic Plan was drafted entirely by CPRA. It appears the Strategic Plan was drafted and prepared behind closed doors at the eleventh-hour to limit public involvement and input from oyster industry stakeholders, including the LOTf. The LOTf requests that it be involved in the drafting and

preparation of the Strategic Plan. Additionally, LOTF requests that the public comment period be extended to allow more oyster industry stakeholders to comment. LDWF's release of the draft Strategic Plan on November 16, 2020 allows for only 18 days before the end of the public comment period and only 45 days before the Strategic Plan is to be finalized pursuant to Senate Resolution No. 56. This rushed process will result in a flawed Strategic Plan, which will not serve to benefit or rehabilitate the oyster industry as needed.

2. LOTF Seeks Additional Time to Review Public Comments.

LOTF objects to the manner and structure by which LDWF sought public comments regarding the Strategic Plan. LDWF has indicated to LOTF that LOTF's input, comments, and objections will be treated no differently than any other member of the public. In doing so, LOTF is denied the opportunity to review all public comments and recommendations to determine how such public input will affect the oyster industry. LOTF requests that after all public input is received, the public comments and recommendations be forwarded to LOTF for review and consideration by LOTF. Thereafter, LOTF can provide its comments, recommendations, proposals, and responses to the Strategic Plan.

3. LOTF's Initial Objections to the Strategic Plan.

Based upon the limited involvement afforded to LOTF during the drafting of the Strategic Plan, LOTF provides these initial objections to several initiatives contained in the November 2020 draft of the Strategic Plan.

a. Initiative 7 - Evaluation of Lease Incapable of Oyster Production.

Initiative 7 seeks to eliminate oyster leases in areas where environmental factors, including water quality, do not permit the oyster leases to meet certain undefined production criteria. As LDWF should be aware, environmental factors, such as water quality and salinity, continuously change over time. Generational oyster harvesters can attest that areas which were productive during one decade can become unproductive the next decade, and then productive again a decade later. If LDWF is successful in creating a "low-salinity oyster" (See Initiative 12), then areas which may have been non-productive due to low salinity most likely will become productive in the near future.

LDWF has a legislative obligation to promote the oyster industry. Initiative 7 does not promote or rehabilitate the oyster industry. Oyster leaseholders actively rebuild the coast of Louisiana by placing cultch material on oyster leases. The prospect of

cancellation of oyster leases which are non-productive for a short period of time will certainly discourage oyster lease holders from investing in their oyster leases and placing cultch materials on the water bottoms of Louisiana's eroding coast. Based upon the limited information and discussion provided to LOTF regarding Initiative 7, LOTF strongly objects to its inclusion in the Strategic Plan.

b. Initiative 8 - Establishment of Cultivation and Production Requirements on Leases.

Initiative 8 seeks to have oyster harvesters maintain production records ("trip tickets") on the production of oysters from each separate oyster lease. Currently, oyster harvesters document the Basin Code for the Area Fished. The proposed lease-by-lease documentation initiative is a bureaucratic idea, which looks good on paper, but which is not practical in the real world when harvesting on an actual oyster vessel. Oyster leases in Louisiana can measure only a single acre in size. When harvesting, oyster harvesters can harvest from several small oyster leases in a short period of time. Maintaining documentation of which oysters are harvested from which leases will result in additional paperwork and a slower and more expensive oyster-harvesting process. Due to its hindrance on the oyster production process, LOTF objects to Initiative 8 of the draft Strategic Plan and recommends that oyster harvesters track location locations by indicating one of the twenty-eight Shellfish Harvest Areas defined by the Louisiana Department of Health and Hospitals Shellfish Harvest Areas.

c. Initiative 3 - Development of Spawning Stock Sanctuary Network.

Initiative 3 seeks to spend \$13.8 million to create a "spawning stock sanctuary network." This initiative is a veiled attempt to utilize millions of dollars intended for the oyster industry to create a network of recreational fishing sites across the state under the guise of oyster stock areas. These funds should be utilized by LDWF to rehabilitate and support the oyster public seed grounds. Over the last decade, LDWF has failed to maintain and support the oyster public seed grounds. The dedication of \$13.8 million to an oyster spawning stock network is a draw of resources from LDWF obligations to maintain and support to oyster public seed grounds. If LDWF proceeds with the creation of the proposed "spawning stock sanctuary network" to support the oyster industry, LOTF recommends that the network be treated as a true sanctuary and kept off-limits to recreational fishermen. Without such a restriction, this initiative is not designed to support the oyster industry, but rather a transfer of funds to the recreational fishing industry. For these reasons, LOTF objects to Initiative 3 of the draft Strategic Plan.

d. Initiative 12 - Research and Development

Initiative 12 seeks to spend \$25 million to develop a low-salinity oyster. This Initiative represents the largest financial commitment of the draft Strategic Plan, representing almost 19% of the \$132.3 million dollar proposed budget. LOTF objects to the dedication of such substantial resources, which will not guarantee any benefit to the oyster industry. Standard research and development budgets usually consist of 5% or less of the overall budget.

Based upon the foregoing concerns and objections, LOTF requests that LDWF and CPRA permit more involvement of LOTF in the planning, drafting, and creation of the Strategic Plan. After receipt of public comments, LOTF requests that all comments be forwarded to LOTF for review and consideration. Thereafter, LOTF, LDWF, and CPRA can work together to refine the Strategic Plan in a manner which will provide the best impact to rehabilitate, promote, and grow the oyster industry in Louisiana.

We look forward to your response and working with you in the future on developing the Strategic Plan.

LOUISIANA OYSTER TASK FORCE



Mitchell B. Jurisich, Jr.
Chairman

cc: Chip Kline, Chairman Louisiana Coastal Protection and Restoration Board
Chip.Kline@la.gov
Senator Sharon Hewitt, District 1, Louisiana Senate
hewitts@legis.la.gov

Page Cortez, President of the Senate
cortezp@legis.la.gov

Jill Eldridge, Executive Assistant to the President, Louisiana Senate
eldridgej@legis.la.gov

Clay Schexnayder, Speaker of the House, Louisiana House of Representatives
schexnayderc@legis.la.gov

Tanner Magee, Speaker Pro Tempore,, Louisiana House of Representatives
mageet@legis.la.gov

Kim Michelle Dodd, Senior Analyst to the Speaker and Speaker Pro Temp,
Louisiana House of Representatives
doddk@legis.la.gov

Kirk LePine, Plaquemines Parish President
klepine@ppgov.net

Guy McInnis, St. Bernard Parish President
presidentmcinnis@sbgp.net

Gody Dove, Terrebonne Parish President
gdove@tpcg.org

Archie Chaisson, Lafourche Parish President
chaissonap@lafourchegov.org

Cynthia Lee Sheng, Jefferson Parish President
Cleesheng@jeffparish.net

Tony Guillory, Calcasieu Parish President
tguillory@calcasieuparish.gov

Magnus "Sonny" McGee, Cameron Parish President

Sonny.mcgee@cheniere.com

M. Larry Richard, Iberia Parish President
mlarryrichard@iberiagov.net

LaToya Cantrell, Mayor of the City of New Orleans
mayor@nola.gov

David Hanagriff, St. Mary Parish President
dhanagriff@stmaryparishla.gov

Mike Cooper, St. Tammany Parish President
mcooper@stpgov.org

Dane Hebert, Vermilion Parish President
dnlabear@yahoo.com

Senator Bob Hensgens, Chairman Senate Natural Resource Committee
sen26@legis.la.gov

Senator Michael "Big Mike" Fesi, Vice-Chairman Senate Natural Resource Committee
sen20@legis.la.gov

Senator R.L. "Bret" Allain, II, District 21, Louisiana Senate
allainb@legis.la.gov

Senator Joe Bouie, District 3, Louisiana Senate

bouiej@legis.la.gov
Senator Patrick Connick, District 8, Louisiana Senate
connickp@legis.la.gov
Senator Sharon Hewitt, District 1, Louisiana Senate
hewitts@legis.la.gov
Senator Eddie Lambert, District 18, Louisiana Senate
lamberte@legis.la.gov
Senator Rick Ward, III, District 17, Louisiana Senate
wardr@legis.la.gov

Representative Jean-Paul Coussan, District 45, Louisiana House of Representatives
Chairman of House Natural Resources and Environment Committee

coussanjp@legis.la.gov

Representative Ryan Bourriaque, District 47, Louisiana House of Representatives
Vice Chairman of Natural Resources and Environment Committee

hse047@legis.la.gov

Representative Rhonda Gaye Butler, District 38, Louisiana House of Representatives

hse038@legis.la.gov

Representative R. Dewith Carrier, District 32, Louisiana House of Representatives

hse032@legis.la.gov

Representative Phillip DeVillier, District 41, Louisiana House of Representatives

devillierp@legis.la.gov

Representative Daryl Andrew Deshotel, District 28, Louisiana House of Representatives

hse028@legis.la.gov

Representative Timothy P. Kerner, District 84, Louisiana House of Representatives

hse084@legis.la.gov

Representative Mandie Landry, District 91, Louisiana House of Representatives

hse091@legis.la.gov

Representative Rodney Lyons, District 87, Louisiana House of Representatives

lyonsr@legis.la.gov

Representative Buddy Mincey, Jr., District 71, Louisiana House of Representatives

hse071@legis.la.gov

Representative Joseph A. Orgeron, District 54, Louisiana House of Representatives

hse054@legis.la.gov

Representative Neal Riser, District 20, Louisiana House of Representatives

risern@legis.la.gov

Representative Troy D. Romero, District 37, Louisiana House of Representatives

hse037@legis.la.gov
Representative William "Bill" Wheat, Jr., District 73, Louisiana House of Representatives
hse073@legis.la.gov
Su King, Legislative Analyst, Louisiana House of Representatives
kingsu@legis.la.gov

Daryl Purpera, Legislative Auditor
dpurpera@la.gov

Patrick Banks, Assistant Secretary, Department of Wildlife and Fisheries
pbanks@wlf.la.gov
Cole Garrett, General Counsel, Department of Wildlife and Fisheries
cgarret@wlf.la.gov
Caroline Bourque, LDWF Oyster Program Manager
cbourque@wlf.la.gov
Tom Harris, Secretary, Department of Natural Resources
Thomas.Harris@LA.GOV
Karl Morgan, Department of Natural Resources, Office of Coastal Management
karl.morgan@la.gov
Justin Gremillion, Department of Health and Hospitals
justin.gremillion@la.gov
Cheston Hill, Public Lands Administrator, State Land Office
Cheston.Hill@la.gov

Byron Encalade, President, Louisiana Oystermen Association
Encaladetrucking@yahoo.com
Ralph Pausina, President, Louisiana Oyster Dealers and Growers Association
buddypaus@cox.net
Mitch Jurisich, Louisiana Oyster Dealers and Growers Association
mitchjurisich@yahoo.com
Sam Slavich, Louisiana Oyster Dealers and Growers Association
samslavich@hotmail.com
Tracy Collins, Louisiana Oyster Dealers and Growers Association, Lafourche Parish
Tcollinstwd@yahoo.com
Al Sunseri, Louisiana Oyster Dealers and Growers Association, Jefferson Parish
asunseri@bellsouth.net
Jakov Jurisic, Plaquemines Oyster Association
oysterjj@bellsouth.net

John Tesvich, Chairman, Plaquemines Oyster Association

jtesvich@ameripure.com

Shane Bagala, Southwest Pass Oyster Leaseholder Association

bagalas@cebridge.net

Brad Robin, United Commercial Fisherman's Association

bradrobin64@gmail.com

Brandt Lafrance, United Commercial Fisherman's Association

brandtlafrance@yahoo.com

Peter Vujnovich, Jr., Delta Commercial Fisherman's Association

pvujnovich@aol.com

Comments on the Draft Oyster Management and Rehabilitation Strategic Plan (Plan)

John Dale “Zach” Lea, Ph.D., Agricultural Economist, December 1, 2020

<https://www.wlf.louisiana.gov/news/ILDWF-seeks-public-input-on-draft-of-louisiana-oyster-management-and-rehabilitation-strategic-plan>

CPRA Involvement

The Plan is deficient in that it does not respond fully to SENATE CONCURRENT RESOLUTION NO. 56, which calls for “the Coastal Protection and Restoration Authority and the Louisiana Department of Wildlife and Fisheries continue to work together to: (1) Develop a Louisiana Oyster Management and Rehabilitation Strategic Plan that will guide the Louisiana public oyster resource and oyster industry to a more productive future and provide a path for recovery and maintenance of Louisiana's oyster resources, for promotion and maintenance of a thriving oyster resource and industry in Louisiana, and for assistance with industry sustainability and development, while reducing conflicts in the coastal zone...”

The Draft Plan only mentions CPRA as a possible source of funding. It should include CPRA’s plans to protect, restore, and enhance the coastal conditions necessary for the production of oysters. As stated in the Plan, those conditions “include appropriate salinities, temperatures, dissolved oxygen, and flow.” The CPRA has the authority to control those conditions. The LDWF and the private sector can only work with the conditions established by the CPRA. Accordingly, the Concurrent Resolution urged that CPRA and LDWF “work together.” The role of the CPRA is to provide a water management plan detailing where it has allocated resources to assure that oyster production can take place.

Without CPRA leadership, Louisiana is turning its back on its greatest sustainable and most manageable natural resource: its capacity to produce oysters. In general, Louisiana can produce 200 sacks of oysters per acre per year, using traditional techniques that include building a costly substrate and managing a growing population of oysters to produce a constant harvest over many years. If Louisiana’s 400,000 acres of private oyster leases produced 200 sacks per year, State production would more than quadruple to more than 80,000,000 sacks. Of course, Louisiana doesn’t do that from both public and private land. National Marine Fisheries Service reports 12-year average Louisiana landings at 10,100,060 pounds or 1,553,855 sacks---less than 2,000,000 sacks.

Earl Melançon, in his 1990 Ph.D. dissertation, reports that oyster bedding operators in Barataria Bay (1982-1985) produced 943.6 sacks per acre. At that time, bedding involved taking under-sized oysters from public seed grounds, relaying the oysters on private grounds, and re-harvesting after a period of growth. If CPRA and LDWF could establish optimal growing conditions on 20% of the area of existing private leases (80,000 acres) and a vibrant oyster seed

production “industry,” Louisiana could increase its annual landings seven-fold using the relaying technique described by Dr. Melançon. Alternative Oyster Culture techniques can more than match the production observed by Dr. Melançon.

The first thing to put in place is the conditions required by the oysters. If those conditions were reliably in place, the government-driven risks to investment in the oyster industry would be greatly reduced. With revenue at \$100/sack and the 900 sacks per acre observed by Dr. Melançon revenue would be \$90,000 per acre, the attraction would be strong. The private sector would invest. Thus, a plan for the conservation of the foundational resources of our oyster industry should be the starting point for Louisiana’s Oyster Management and Rehabilitation Strategic Plan. Establishing the environmental conditions for oyster production is under the authority of the Coastal Protection and Restoration Authority.

Tragedy of an Abundant Resource Endowment: the Paradox of Plenty

Economists point out that nations (or states) with large endowments of natural resources, such as oil, coal, or certain minerals, often have less economic development than nations with fewer natural resources. See https://en.wikipedia.org/wiki/Resource_curse. In Louisiana, we have such abundant non-renewable natural resources in oil and gas that we have largely ignored our large endowment in renewable oyster production resources. Further, the profits in the O&G industries have been so attractive, we have overlooked the sustainable value of the oyster industry and sanctioned damage to the oyster resource as we exploited the O&G. This can be shown by imagining what our coastal zone and oyster industry would have looked like had we not had the abundant resource endowment in O&G. Much of the coastal land loss would not have occurred. With wise management of our foundational oyster production resources, the oyster industry would be many times larger than it is today. The CPRA would be focused on maintaining and expanding the coastal conditions necessary for the production of oysters. Oysters would be the most valuable agricultural crop in the State.

In 2018, sugarcane was Louisiana’s highest-value field crop worth \$1,006,218,367. The crop was produced on 429,368 acres. That’s a farm revenue value of \$2,343 per acre. In contrast, traditional oyster production-per-acre is worth \$20,000. (200 sacks per acre at \$100 per sack). That’s more than eight times the per-acre value of Louisiana’s highest-value field crop. This observation underscores the gap in the existing value of oysters and the value the industry should be with wise public resource management by the LDWF and the CPRA. It underscores the opportunity the establishment of a reasonable oyster industry management plan presents for the Industry, the LDWF, the CPRA and the State. Perhaps, the CPRA is not doing more for the oyster industry because it is constrained by the requirement to use BP oil spill penalty money only for building barrier islands and wetlands. Unfortunately, current CPRA plans to

build wetlands via freshwater flooding (sediment diversions) makes oyster production impossible in several of the State's most traditionally productive oyster zones.

Tragedy of the Commons and Efficient Use of Public Funds

Because public seed grounds are open to the public, they are subject to the Tragedy of the Commons, namely, anybody can compete for the harvest and public grounds tend to be destroyed by the large number of oyster boats attracted to them--- unless the LDWF imposes regulations which tend to reduce the efficiency of the oyster fleet.

The Plan should include solutions that utilize public funds more efficiently. One option is to encourage the development of private seed production businesses. These businesses would sell seed to other oyster producers (alternative culture, relaying, etc.) that will grow the oysters to market-size as did the earlier bedders Melançon studied. This is a value chain similar to the beef value chain that moves cattle from cow/calf operations on farms to feedlots, to slaughter houses. One way to encourage this value chain is to subsidize the seed producers through financial, regulatory, and technical assistance. If it costs the LDWF \$X/sack to produce 2.5" seed oysters, LDWF can improve efficiency by paying \$.8X per sack to seed producers. Regulations should be changed to allow citizens owning homes or camps on oyster-productive water to produce seed oysters for resale to out-growers. The public health aspect of producing seed near human habitations will be addressed by assuring the seed will grow to market size in DHL open water.

The Tragedy of Commons can also be addressed via industrial parks and special management areas (see William Lindsey, TULANE ENVIRONMENTAL LAW JOURNAL [Vol. 27:351 2014] Louisiana's Coastal Zone, It's All Special, but Some Areas Deserve Legal Classification: Using Section 214.29 of Louisiana's SLCRMA To Designate Special Areas and Protect the Coastal Zone) because industrial parks and special management areas (SMAs) can limit access to the areas to an efficient number of boats/equipment. Industrial parks and SMAs can use regulations to assure the areas are being used efficiently and the resources are producing an optimal quantity of oysters. Percy M. Dardar is promoting the establishment of special management areas in Terrebonne and Lafourche parishes with the objective of rebuilding the oyster industry there through efficient management provided by SMAs.

Involvement of the Private Sector and Parish Governments

With the limited funds available to the LDWF, the Plan should encourage more involvement of the private sector and parish governments in financing the expansion of the industry. The private sector already plants more cultch than the State. The private sector would do more if allowed via favorable laws, regulations, technical assistance, and subsidies such as mentioned above. Parish governments should be encouraged to develop industrial parks devoted to oyster

production and marketing via economic development funding and technical assistance from CPRA and LDWF. Where possible these parks should incorporate CPRA storm and wetlands protection structures.

The O&G industry has begun to plan for our eventual shift into renewable energy and for profitable use of depleted water-bottoms. O&G should be encouraged to develop its vast acreages of coastal water-bottoms as oyster farms. Proper planning would allow for both O&G and oysters. Forward-looking companies such as ConocoPhillips, which owns some 150,000 acres of wetland in Terrebonne Parish have begun to install terraces for wetland erosion control but have not fully exploited their land for oyster production. Theoretically, if ConocoPhillips could devote 20% of its water-bottoms to oyster production (30,000 @ 200 sacks/acre), it could produce 6,000,000 sacks of oysters---more than three times the amount of oysters produced annually by the Louisiana oyster industry. See

<http://www.conocophillips.com/spiritnow/story/restoring-coastal-wetlands/>

Hopefully, in the future, large landowners like ConocoPhillips will install special management areas and share management with groups of local citizens, such as being proposed by Percy Dardar. Percy is proposing that ConocoPhillips and the Houma Nation develop a 9,000-acre SMA near the Houma Tribe's homeland in Terrebonne Parish. Most of the 9,000 acres is owned by ConocoPhillips.

Plan Objectives

The Plan should include **an objective on the number of acres** and locations of water-bottom that will support oyster production within five years. This part of the Plan is the contribution of the CPRA. Without a water-flow plan to control salinities, temperatures, dissolved oxygen, and other conditions necessary for oyster production, the LDWF cannot plan for the development of the oyster industry and the oyster industry cannot confidently invest. By itself, the LDWF cannot set measurable objectives for future oyster production acreage and annual landings, because it has no control over the underlying resources. Without knowledge of where oyster production will be possible, investing in the oyster industry will be highly risky---much higher than it would be if the State was committed to the protection, restoration, and expansion of the coastal resources required for oyster production. The CPRA controls the future of those resources.

A sub-objective is to adopt a policy of no-net-loss-of-oyster-production from public projects. This is an extension of the existing policy of no-net-loss-of-wetlands.

An additional sub-objective, is to expand annual Louisiana oyster landings **fivefold within five years**. This objective can be achieved by first establishing the growing conditions via the CPRA water management plan and then adopting the laws, regulations, technical and financial

assistance to stimulate a oyster value chain to support production of 450 sacks per acre per year (less than half what Dr. Melançon observed). Currently, Louisiana's annual landings are less than 2,000,000 sacks per year. Five times that could be produced on 23,000 acres of final grow-out acreage at 450 sacks per acre. The State currently has some 1.7 million acres of public oyster areas and 400,000 acres of privately leased oyster bottoms. The major constraints to quintupling oyster production are

1. enough oyster seed and
2. the existence of the environmental conditions required for oyster production.

The seed could be produced by the private sector with support from the LDWF and the Louisiana Department of Health and Hospitals (LDH). The environmental conditions can be established by the CPRA by combining coastal protection and restoration with the development of the oyster industry.

Comments on Selected Plan Initiatives

Initiative 1 - Traditional Cultch Planting and Water-Bottom Mapping

- Purchase spat-on-shell from the private sector at a discount to public sector costs. With encouragement from LDWF purchase orders, the private sector may develop efficient techniques for producing spat-on-shell that are privately profitable yet are below government's production costs.
- Given that public reefs are subject to the Tragedy of the Commons and are likely less efficient producers of oysters than private sector managed reefs, water-bottom mapping should be partially oriented toward discovering exploitable resources for lease to the private sector. Policy could encourage the private sector to participate in the financing of mapping by guaranteeing the participant the right of first refusal to lease the area for oyster production.

Initiative 2 - Cultch Planting of Remotely Set Oysters

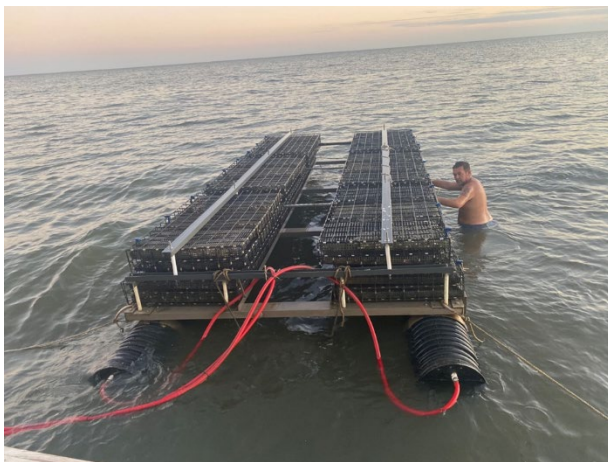
Given the private sector's ability to develop innovative, profitable solutions to operable demand; the LDWF should encourage the development of private sector oyster seed production enterprises. This can be done by setting the appropriate laws and regulations and by issuing purchase orders for seed intended for public reefs. It is possible that Alternative Oyster Culture operators will produce seed by moving bags of oyster shells into areas with high concentrations of oyster larvae at the moment when oyster spat set is occurring. Given support from the LDWF and the LDH, citizens having access to closed, oyster-producing waters (as well as citizens owning camps and homes on oyster-producing water) will produce oyster seed and intermediate-size oysters for relaying and AOC operations.

Initiative 3 - Development of Spawning Stock Sanctuary Network

See comment on Initiative 2 above. LDWF should allow oyster spat collection businesses to operate in the waters above sanctuary reefs and over private water bottoms and leases, with permission from the owners.

Initiative 4 - Expansion of Alternative Oyster Aquaculture (AOC)

The Plan should encourage innovation in AOC techniques via laws and regulations that open the field for innovation. For example, comments above suggest AOC techniques could be used to capture spat from public or private grounds in open or closed waters. To make this practice feasible will require laws and regulations that allow AOC equipment to be moved more frequently than traditional AOC practice. A new innovation is the Shellevator, patented by Angelo Depaola and Gary Sunderland (US Patent No. 10,357,023 B2). Full disclosure: I am working with Andy to market a specially designed Louisiana Shellevator. The Shellevator is a submersible raft for oyster production. A 25' by 8' Shellevator can produce 30,000 market-size oysters in six months. Two of these Shellevators would match traditional per-acre production of 200, regulation-size sacks. Yet, use of the Shellevator does not require the expensive investment to establish the firm water-bottom (substrate) required for traditional oyster production. The Louisiana Shellevator could be used to produce various sized seed, market oysters, or to depurate oysters from closed waters. Shellevators could also contribute to storm surge dampening and shoreline protection. With the proper laws, regulations, and incentives, the private sector would finance much of the shoreline protection.



Shellevator off Dauphin Island Alabama. Storm protection: the Shellevator sat on the bottom and did not move during Hurricane Delta and Zeta. A build-up of sand was observed between the Shellevator and the beach. Zeta had 5-7 foot waves and a 9' storm surge. This Shellevator is designed to produce 10,000 oysters. The Louisiana Shellevator will produce 30,000 oysters.

Innovation in the use of special management areas should be encouraged by laws, regulations, and one-stop-window-draft-project-proposals with the path to obtaining access to land and permits clearly drawn. Parishes should be encouraged to treat these special management areas as aquacultural industrial development parks with the Parishes investing in needed

infrastructure. Sited appropriately, these aquacultural industrial development parks could also serve as additional storm surge protection for the communities. Clearly, the CPRA will play a major role in the development of these parks by assuring the appropriate environmental conditions for oyster culture are developed and maintained: “appropriate salinities, temperatures, dissolved oxygen, and flow.” Ideally, the CPRA could combine construction of water control structures and storm surge barriers with the development of the aquacultural industrial parks. An oyster industrial park south of Hopedale might use a water control structure on the MRGO-back-levee canal to protect the park from Bonnet Carré floods. It might employ additional water control structures to add water from MRGO for salinity management.

Initiative 7: Evaluation of Leases Incapable of Oyster Production

There is a conflict of interest aspect with this Initiative, namely, it is in conflict with the Legislature’s purpose for the Plan. Cynically speaking, this Initiative contains a seed for the destruction of the Industry. Changes in environmental conditions, brought about by permitted projects and designed to build wetlands have rendered some oyster leases and public grounds incapable of producing oysters. Initiative 7, perhaps unintentionally, allows those areas to be written off the State’s oyster production areas without plans to mitigate the loss by developing replacement areas with “appropriate conditions.” In the case of wetlands, no net loss of wetlands through mitigation has been US policy since 1990. Our Plan should consider adopting/implementing a policy of no net loss of oyster production areas. If action by the State results in the loss of oyster production area(s), the State should mitigate the loss by developing “appropriate conditions” on an equal amount of unproductive area.

Initiative 9: Establishment of New Public Oyster Areas

This initiative can be most successful if it fits within the CPRA plan for the development of “appropriate conditions” for oyster culture. For example, the AOC park near Grand Isle may not be compatible with the Mid-Barataria Sediment Diversion.

Initiative 10 - Mississippi River Gulf Outlet (MRGO) Hydrologic Evaluations

The Plan should also study the use of siphons, underground pipes, or flood-gated canals to direct water from MRGO into the marshes on either side of MRGO, downstream of the Dam. This water could be used to manage salinities in the areas for optimal oyster production.

Initiative 11 – Evaluation of the Restoration Bohemia Spillway Water Control Structure

It is important to remember the value of the Breton Sound oyster fishery prior to the opening of Mardi Gras Pass. See the Louisiana Department of Wildlife & Fisheries report: “The effects of the Mississippi River levee breach at the Bohemia [Mardi Gras Pass] salinity control structure on

hydrology, oyster populations, and oyster landings of Breton Sound, with possibilities for oyster industry adaptation”

If restoration of the control structure led to the recovery of the Breton Sound oyster fishery and the area began producing 47%-50% of State landings again, then simple math implies the investment would double current oyster landings. That would be the best investment the State could make to restore the oyster industry. For the investment to be successful, the CPRA would have to redesign the Mid-Breton Sediment Diversion such that it did not flood the production area with freshwater. The CPRA can achieve its storm protection and wetlands construction objectives without diverting river water into Breton Sound. See [Mid Breton Why Are We Doing This \(1\).docx](#). See [Public Comment to CPRA August 25 \(1\).docx](#). The redesign of the Diversion should be a part of CPRA’s work together with the LDWF to respond to the Legislature’s request via Concurrent Resolution No. 56.

Initiative 12 – Research and Development (R & D)

Given the negative response many consumers have toward genetically-modified (GMO) organisms, the Plan should not discuss genetic engineering of oysters. A genetically modified organism is an animal, plant, or microbe whose DNA has been altered using genetic engineering techniques. Better to use traditional breeding techniques to develop improved strains of oysters. Breeding techniques have been used intentionally or unintentionally by humans to develop improved plants and animals since they shifted from hunting/gathering to agriculture. Consumer advocates understand the benefits of breeding.

Acknowledgements

I thank the many individuals in the private sector and in the public sector, LDWF, LSU Sea Grant, MSAL Sea Grant, and the Oyster Task Force for teaching me what I know about the industry.

Carolina,

I have prioritized the Initiatives and values listed on page 5 & 6:

1. Expansion of Hydrologic Monitoring (Including Research of chemicals, etc. coming from the river) \$30,000,000.
2. Mississippi River Gulf Outlet Hydrologic Evaluation (MRGO) & Atchafalaya River Basin \$5,000,000.
3. Restore Bohemia Spillway Water Control Structure (Including all River Breaches) \$50,000,000.
4. Traditional Cultch Planting \$47,000,000.
5. Research and Development \$300,000.

Take these actions immediately in order for the Industry to recover within 3 to 5 years.

Steven A. Voisin
412 Palm Ave.
Houma, LA 70364
P: 985-868-7191
C: 985-665-3415
F: 985-868-7472
steven.voisin@motivativit.com



OysterFisheries@AOL.com

Areas north of the ship channel areas three and four they produce the most oysters in the state of Louisiana on record for the last few years. You have trip tickets from these areas if you take the top 10 oyster producers from this area and get their input on what should be done in this estuary. They are the top 10 because of their knowledge of this area.

I see that you're looking to do a study of the MRGO. Over the years I have worked in Lake Anastasia and Bay Eloi. With the MRGO open I see lots of salt water intrusion in the summer in Lake Anastasia and Bay Eloi. With the MRGO open the fresh water from the Bonnet Carré Spillway harms lake Anastasia and Bay Eloi. Too much fresh water comes into these estuaries and the oysters start to die off. With the MRGO close like Anastasia has been producing large number of oysters again. Lake Borgne has never produce large amounts of oysters for long years of production compared to areas three and four.

I see that you're looking to plant oyster shell in areas in Lake Borgne, grand Banks, Turkey Bayou, and Grand Pass area, this would be a waste of money to plant in these areas the salinity is never stable in these areas for a long-term growth and Harvest.

We need to work on smaller projects in areas and rebuild Islands and water breaks to keep this estuary stable. A stable estuary will produce more oysters then a large unstable area it will produce oysters for a long period of time if we stabilize the estuary.



Post Office Box 4125
Baton Rouge, Louisiana
70821

Tel (225) 338-1040

Fax (225) 338-0103

RE: Louisiana Oyster Management and Rehabilitation Strategic Plan

Date: December 2, 2020

Dear Ms Bourque:

This letter serves as The Nature Conservancy of Louisiana's response following the complete review of the Louisiana Department of Wildlife's draft Louisiana Oyster Management and Rehabilitation Strategic Plan.

Overall, we find the Plan to be sensible, well-conceived and one of the more integrated oyster management plans out there. The Nature Conservancy sees robust, long-term fisheries, including the oyster fishery, as a conservation outcome that is desirable and needed to maintain the strength and character of coastal communities by supporting the livelihoods and traditions of those who live there and are stewards of those places. By addressing the current state of oyster resources in Louisiana and the multiple interests with a stake in it, this Plan very nicely develops a strategy to ensure the viability of this resource as both an important fishery *and* an essential coastal habitat. We recognize that it is largely the role of the Department to manage the commodity side of oyster resources and believe the twelve initiatives detailed in the Plan are both flexible and integrated such that maintaining and increasing production on public grounds is achievable while also increasing and enhancing the footprint and ecological function of the habitat.

What follows are comments and questions, where we have them, about specific sections in the plan.

- **Introduction:** Addressing both the value of the oyster fishery to the state and the value of the ecosystem services provided by oysters beyond the fishery (provisioning services) sets a strong tone for an integrated approach to managing oyster resource – that it is not an “either/or” scenario, but complementary approaches to the overall health and longevity of the resource. Also pointing out that public grounds have been instrumental in supporting the success through hard work that many private, commercial lease holders have had, but that public grounds, which cover more than four times the total area of leases, require rehabilitation to thrive locally, is an important point in the overall recovery of oysters in the state.
- **Goals and Objectives:** In the first bullet of the first goal, we would suggest including not only achieving an average of 20 seed oysters/m², but also maintaining that average. Under 3a, we

suggest adding an additional bullet that makes the retention and recycling of oyster shell a rehabilitation option that increases the resilience of the industry. Under point 4 we believe future discussion of also including probes to monitor for harmful algal blooms (HAB's) could add both to food security and consumer confidence. We recognize that this is an added cost.

- **Overview:** The Department's acknowledgement that multiple factors are at play for the low stock assessments on public grounds points to the difficulty that both the Department and industry face in realizing desirable harvests, and also that addressing these challenges lies in a more integrated approach with other agencies and partners as is suggested by the Plan. Also, the recognition that public grounds are too vast to rely solely on successful, but publicly expensive cultch techniques lend credence to the more integrated approach of the Plan. Finally, addressing the State's interest in fostering oyster production where it can occur and creating a cleaner path to other coastal uses and restoration that are also in the public interest is, we believe, an integral part of the Plan.
- **General Considerations:** These considerations for successful restoration and rehabilitation projects are consistent with successful practices and science. While it is mentioned elsewhere in the Plan, we suggest also including that placement of material should be done and maintained, when possible, at a height such that it guards against protracted low D.O. (dissolved oxygen) and/or high salinity events, and burial from suspended sediments.
- **Initiative 1:** While the Plan does not contain a specific retention and recycling plan for oyster shell, acknowledging its importance in managing the resource is essential to making that a reality, and we are pleased to see it in this section. Secondly, the 5-year cultch planting plan seems sensible, but we wonder why Calcasieu Lake is not represented here. As southwest Louisiana recovers from this year's devastating hurricanes, harvest effort is likely to increase thereby necessitating a need for new cultch material.
- **Initiative 2:** The cultch planting of remotely set oysters is a sound means of potentially increasing local stocks on public grounds. We are assuming here that after five years an evaluation will be made as to where and whether remote sets are maintaining themselves locally or need continual replenishment.
- **Initiative 3:** We believe that spawning stock reefs are an excellent means of ensuring a local larval supply to adjacent harvested and unharvested reefs in the state's estuaries, and may also increase larval transport among estuaries. The first sentence in the second paragraph mentions these brood stock reefs may be closed to harvest. Since these reefs are collectively anticipated to be 40 acres among seed grounds that measure 1.7 million acres, we believe that these reefs should remain closed to harvest so the investment can continue to grow and not require replenishment. We strongly agree that up-estuary and down-estuary reefs would create a more successful mosaic of oyster resources. Based on trends of freshwater inputs over the past decade, it is a near certainty that down-estuary spawning stock reef sanctuaries would be essential larval sources to help rebuild stocks following significant flooding events. Lastly, the final paragraph in this initiative mentions moving oysters from areas that have them but are or will be permanently closed due to Department of Health orders to build brood stock reefs in areas that are not closed. This makes good sense, but we would recommend not removing all oysters from these areas since, unless they are certain to be lost, leaving some is essentially another location for spawning stock and adds to the distribution of the overall oyster population in the state.

- **Initiative 4:** This initiative does a very good job of laying out the benefits of Alternate Oyster Culture (AOC). Given the relatively mature state of off-bottom culture in Alabama and Florida, and the current move in Texas to have a robust AOC program, we believe that this is a timely inclusion. Plus, because Louisiana's waters are so productive for oysters, AOC can be an excellent means of diversifying a harvest portfolio, potentially temporarily reducing pressure on wild stock, and adding to the overall commercial production in the state. It can also be a means of maintaining working waterfronts. The State's consideration of educating and assisting those interested in beginning or transferring to AOC is an excellent notion as could reduce some of the risk and financial burden involved in getting started. Having grants for spawning and rearing diploids and/or triploids is complementary as well. While it is surely a given, we'd recommend including that that is limited to the native eastern oyster (*Crassostrea virginica*). Since spat-on-shell, seed production, etc. rely almost entirely on having a lab or labs that can successfully produce lots of triploid larvae we recommend allocating resources to purchase new tetraploid brood stock. The AOC start-up grants are also an excellent idea. It may not be within the jurisdiction of the Department, but making first offering to those local to an estuary where AOC is or will occur could likely increase the sense of place and stewardship for those bays and estuaries.
- **Initiative 6:** Including Data Collection Platforms and incorporating existing USGS Streamflow data should increase the ability of the Department to manage oyster resources. This will be especially helpful if AOC expands to multiple geographies. We wonder if it may also be possible to incorporate data from CRMS stations located throughout the coastal zone.
- **Initiative 7:** This initiative is a very reasonable approach to helping the agency and industry focus on oyster resource issues with real impact. And a meaningful way to determine the state of oyster resources throughout the coast.
- **Initiative 8:** Like the previous initiative, this is a means of obtaining a more accurate, coast-wide state of oyster resources that could improve management and ultimately production. Also, several fisheries throughout the country are moving towards electronic monitoring to the benefit of the fishery.
- **Initiative 9:** This section is notable in that parts of other initiatives are represented here, and it speaks to the overall integrated nature of this Plan. We view that integration as the principal strength of the plan.

From its introduction to conclusion the draft Louisiana Oyster Management and Rehabilitation Strategic Plan is an integrated, inclusive and thoughtful approach to the management and maintenance of one of the state's most notable and beloved natural resources. The Nature Conservancy applauds the effort and care taken by the Department to develop this Plan and the seriousness and ownership taken in the management of this public resource.

Sincerely,

Seth Blitch

Coastal Program Director

The Nature Conservancy, Louisiana

Public Comment from Tony J Tesvich:

Wow, a rehabilitation plan written up by CPRA, let's see what we can agree upon. First of all, any oyster rehabilitation program that DOESN'T put the closing of the Mardi Gras Pass Breach as the most significant goal is ABSURD, and shows just how transparent the manipulation of LDWF by the CPRA is currently.

I support the comment letter authored by OTF chairman, Mitch Jurisich, but would like to add my personal thoughts on the entire plan. Please hear me out.

Initiative 1:

"Natural and man-made processes remove exposed shell mass from reefs on an annual basis"sedimentation covers reefs that lack oyster recruitment and from not being worked. River breaches and LDWF-made micro management closures have caused historical reefs and multi million dollar cultch plants to suffocate under sediment.

"LDWF continues to place appropriate cultch material on suitable water bottoms within areas with appropriate environmental conditions"You have allocated \$5.4M in this plan for cultch plants and side scan sonar in the MS sound area, where you guys chose to let multiple tremendous crops perish to low salinity, reluctant to let us farmers have a GO at it, even during EMERGENCY relay programs! SHAME ON YOU. And you want to create more reefs in this area?, an area that is basically more for Mississippi vessels than it is for LA vessels? What about in Black Bay/Breton Sound or Drum Bay/Morgan Harbor area? Rethink this, The OTF has ALWAYS opposed such investments to the North end, Mississippi sound, there are significant cultch plants in place there already, Manage them. Cultch Planting is money well spent, but if not managed properly or even if they are not

worked enough, they will merely be piles of rock covered in sediment. \$\$\$\$\$. FULL FUNDING+

Initiative 2:

"This initiative will utilize hatchery-raised remote-set oysters to augment natural reefs and existing broodstock sanctuaries"I have dabbled in the remote setting and buying of larvae and micro cultch seed from Grand Isle with some success, even so, there is no huge over supply of larvae for these proposed projects, they can't even fulfill their orders from April thru October. I believe the Spat on shell production to be very minimal without large expansion. Even the LDWF spat on shell project in Buras was canned. Micro cultch singles are more readily available but are limited only for cage grown AOC. I'll set some spat, if the price is right, LOL. \$\$\$\$\$. FULL FUNDING

Initiative 3:

"hard substrate piled vertically to supply relief"I like this idea, as opposed to creating sanctuary Oyster reefs for recreational fishing. These should be placed outside of Navigational sounds, bays or bayous and consist of heavy metal Gabion cages filled with Gabion rock and held in place by pilings/markers. One good example is the rock dam at MRGO @ Bayou Loutre is loaded with oysters, . I think the "down-estuary" locations would be more beneficial, live longer and larvae flows both ways. I Do not agree with Miss. sound or Lake Borgne locations for these. \$\$ FUNDING

Initiative 4:

"The State of Louisiana recognizes AOC as an initiative that can help diversify the oyster industry and add a level of sustainability as the industry adjusts to a changing coast"I have personally invested in AOC as an insurance policy

for the +80% mortalities I experienced from the Bonnet Carre Flood. Started in May 2019, and have yet to sell the first oyster from this large investment of money, labor and time. When Dr John Supan was touting this, he envisioned kids getting out of high school and starting their own oyster farm. I have 35+ years experience in oyster farming/fishing, nearly \$100k invested in AOC and yet to produce the first oyster, lost 80/250 oyster bags from recent Hurricane. Would not recommend this to anybody. CUP application and permitting is a nightmare! If anything streamline the permitting, we are not Chevron, Exxon or Shell Oil. \$\$ FUNDING

Initiative 5:

"decrease the reliance on the public oyster seed areas of Louisiana"Wow, what a cop out, you guys really want to get from under that stipulation, that LDWF is mandated to provide seed for planting to oyster farmers. But hey, if you want to reimburse me for all the rocks, concrete and shells I throw, I won't tell Nobody, LOL. Reimbursement for Lease marking, PVC pipes and poles is another idea. \$\$\$\$\$ FULL FUNDING+

Initiative 6:

"These additional DCPs should monitor water quality parameters such as salinity, temperature, dissolved oxygen, and pH"Ever so Important, especially with the deteriorating water qualities from river breaches, flood years and upcoming sediment diversions. I would recommend them at evenly spaced intervals from inside to out, from fresher to saltier waters. \$\$\$\$\$ FULL FUNDING+

Initiative 7:

"Evaluation of Leases Incapable of Oyster Production"UNCONSTITUTIONAL, if I paid my lease for 15, 30 or 45 years, and you will not renew it? Take me to court, furthermore, you have NO RIGHT to survey MY water bottom without permission. \$0.00\$ FUNDING

Initiative 8:

"development of electronic reporting capabilities, which should also be considered by LDWF to help accurately document harvest activity of market- size or seed-size oysters, and other cultivation activities"Are you serious? This industry has way too much paperwork to do on a daily basis, what with harvester Logs, Time/Temp. Matrix, damn near need a secretary onboard to handle all the paper work and temperature data. Furthermore, my private Lease production is "my business", I might fish any of 10 different leases in a 2 day trip in area 3.

My records of cultch planting are private, unless you are reimbursing me for them. Get real, \$0.00\$ FUNDING

Initiative 9:

"Establishment of New Public Oyster Areas"This is based on CPRA's theory that they can just push the oyster industry further into the Gulf or Breton & Chandeleur Sounds. We already have the most extensive network of historic oyster reefs in the nation, We're NOT giving up the ship. Planting cultch directly on these reefs would be far more productive than making 40 or 50 acre polygons in random places. I'm not opposed to NEW Public Oyster Areas, although Lake Chien, Lake Felicity and Barataria Bay have had little success to increase our production levels. We farmers use the leases that are most likely to produce, even within my leases, I

choose to invest in cultch and develop only the best bottom. \$\$ spent on reef is 10x more productive than on mud. \$\$ FUNDING

Initiative 10:

"Mississippi River Gulf Outlet (MRGO) Hydrologic Evaluations".....There is a controversy here. I can understand the concern of Lake Borgne leaseholders, but the MRGO had to be closed. I personally experienced this river of water headed straight to New Orleans for Hurricane Gustav, where on the Industrial Canal I watched as the water rose to within inches of overtopping the flood wall there. I don't believe this wall can withstand just removing some rocks, it will all tumble. A gate would be the BEST option, but a huge cost. This wall actually makes the natural bayous to the North and to the South flow like they are intended to. I think people ought to watch what they wish for here. \$\$ FUNDING

Initiative 11:

"Evaluation of the Restoration Bohemia Spillway Water Control Structure".....Finally at #11. Forget the evaluations and studies, Let's stop the bleeding first. Build a rock dam at the river to stop the flow. Another control structure can be designed and built at a later date, or not built at all. The most common sensical thing to do and fairly simple. \$\$\$\$\$ FULL FUNDING+

Initiative 12:

"Research and Development (R & D).....I'm sure professors and Universities are lining up and counting on this \$25M. I have said before, "With the technology we have

today, we can grow oysters on the moon, but we WILL NOT be able to grow them in our Louisiana bayous”, if we are inundated with Nitrogen loaded River water. Algae blooms, Hypoxia (low DO levels), and fish kills will plague us for years to come and you want to create a “freshwater” oyster? No Thanks, we like them saltwater oriented, the way Mother Nature intended them to be. Waste of time, and a waste of money, what are we even talking about this for? \$0.00\$ FUNDING

Tony Tesvich

504-439-4878

Dear Ms. Bourque,

I would like to submit these comments regarding the LDWF Louisiana Oyster Management and Rehabilitation Strategic Plan. I am a long time coastal resident and board member of the Coalition to Restore Coastal Louisiana (CRCL). CRCL has been running an oyster shell recycling program since 2014. We collect oyster shell from New Orleans restaurants, cure it, and then return it to the water to build oyster reefs for fisheries habitat and shoreline protection.

Since the program's inception, CRCL has created 3 reefs in the Biloxi Marsh, Pointe aux Chenes (in cooperation with the Pointe au Chien tribe), and Adams Bay in Barataria Bay. Now we're poised to construct 2 additional reefs, in Plaquemines Parish and at a second site with the Pointe au Chien tribe. To date we have recycled approximately 10 million pounds of shell.

I want to see oyster shell recycling expanded throughout Louisiana. This could be accomplished by the expansion of shell collection in New Orleans, the establishment of shell collection programs in other population centers including Baton Rouge, Lafayette and Lake Charles and the development of a drop-off program for oyster shells at multiple sites across the coastal parishes.

I am pleased to see the use of recycled shell in the LDWF plan in Initiatives 1 and 3.

- Initiative 1: Traditional Cultch Planting and Water-Bottom Mapping specifically mentions oyster shell recycling noting "Recycled oyster shell has been shown to be the ideal substrate for seeding cultch, supporting the need for oyster shell recycling programs. Discarded oyster shells added back into the water strategically can serve the dual purpose of restoring coastal wetlands that can protect the coastline from storms and supporting Louisiana's oyster fisheries."
- Initiative 3: Development of Spawning Stock Sanctuary Network "could be assisted by coastal restoration projects for shoreline protection (e.g. living shorelines, oyster recycling programs) that are placed in productive oyster areas, benefiting both natural reefs and private oyster leases."

I encourage LDWF to expand the use of recycled shell in their activities and to consider partnering with CRCL to expand the program. Other states are very aggressive in their management of oyster shells which, instead of being discarded into landfills, are used in coastal restoration efforts. Louisiana could become a national leader in this regard.

Sincerely,

Robert D. Gorman

Robert D. Gorman

Thibodaux, LA

rdfgorman@charter.net

(985) 805-0372



TO: Carolina Bourque -Oyster Program Manager
Via email cbourque@wlf.la.gov
Louisiana Department of Wildlife and Fisheries
P.O. 98000
Baton Rouge, Louisiana 70898

Date: December 4, 2020

Re: Comments on Louisiana Oyster Management and Rehabilitation Strategic Plan

Dear Ms. Bourque:

At Pontchartrain Conservancy (PC), we envision a Louisiana coast that is environmentally sustainable, prosperous, and resilient. Our mission is to drive environmental sustainability and stewardship through scientific research, education, and advocacy. Our work includes projects and programs that benefit oyster resources, and coastal projects, such as oyster suitability analysis, salinity/water quality monitoring, and hydrologic studies. In August, PC offered comments and recommendations on the department-crafted draft initiatives developed to benefit the oyster resource and the industry. We have now had a chance to review the full draft strategic plan and offer the following specific comments for your consideration.

Our organization has been following the development of the Louisiana Oyster Management and Rehabilitation Strategic plan ("strategic plan") since the early months of 2020—when Governor Edwards held a press conference to announce his second-term priorities for the coastal area and related issues. We continue to be encouraged by the administration's commitment to resolving long-standing challenges in the coast between conflicting interests, and by the collaboration between Louisiana Department of Wildlife and Fisheries (LDWF) and the Coastal Protection and Restoration Authority (CPRA) to seek remedies that work for multiple user groups and uses.

At PC, our interest in the coast and the oyster resource is multifaceted. The guiding principles of the program are the Multiple Lines of Defense Strategy and our Comprehensive Habitat Management Plan. These strategies recognize that oyster habitat in our coastal estuary is not simply an economic objective or benefit, but rather also includes the broader ecologic value of oysters as "ecosystem engineers". The oyster beds on state water bottoms are a public resource, and the broad ecologic benefits to the estuary should be at least equal to the commercial objective of enhancing the oyster fishery. This requires a more expansive vision of oyster management and improved alignment with the

State's Coastal Master Plan. PC attempts to inform this discussion with our scientific investigations but also with actual project implementation. In 2019, we completed four artificial reefs in partnership with LDWF. Three of these reefs, we believe, could become brood reefs supporting oyster habitat in the Biloxi Marsh. Given our history of work with your department on reefs and the derelict crab trap removal program, we are hopeful that these efforts will be expanded through the strategic plan and that our partnership will continue to flourish.

Pontchartrain Basin CSA I

Within the Pontchartrain Basin, there has been a remarkable transformation of the estuary due to the closure of the Mississippi River Gulf Outlet (MRGO) in 2009. The result has been the near-complete re-establishment of the pre-MRGO estuarine gradient. While the MRGO was open, oysters literally were growing on cypress knees and stumps demonstrating a near complete contraction of the natural salinity gradient, and the wholly unnatural, and unsustainable, convergence of these critical habitats. These salinity conditions would ensure that only one of these habitats could survive, because these habitats can only survive spatially separated. The MRGO closure has re-established this separation by re-locating to the pre-MRGO swamp habitat and to the pre-MRGO oyster region. Our detailed analysis of post-closure conditions demonstrates that the oysters have been re-established in their natural location before the massive saltwater intrusion effects of the MRGO. The oyster industry has largely adjusted to this change, but is still in need of further support to fully restore and fully commercialize the significant opportunity for the oyster fishery in the Biloxi Marsh. ***The baseline-shift of the estuarine gradient due the MRGO closure is a remarkable re-set of the ecosystem, and is an extraordinary management opportunity to rebuild not only the critical habitats of oysters but also other equally important habitats, such as coastal forests. Our following comments on the strategic plan reflect this understanding of the post-MRGO closure conditions.***

Therefore, we strongly support these elements of the strategic plan in the Pontchartrain Basin within the Biloxi Marsh area:

- Side scan surveys
- DCP locations
- Sanctuary spawning stock reefs
- Reef restoration

We also support these other relevant state initiatives that support oyster productivity but are not part of the strategic plan:

- Opening new areas to oyster leasing in the Biloxi Marsh region
- Re-classifying some public seed areas in the Biloxi Marsh region so they may become available for commercial leasing

But we are opposed to:

- Re-opening of the MRGO rock dam (see detailed discussion below)
- Rehabilitation of the Bohemia water control structure, i.e. modifying Mardi Gras Pass (see detailed discussion below)

Barataria Basin CSA III

Within the Barataria Basin, PC has completed analyses of oyster HSI for 2017 and 2018, and the results suggest that the optimum oyster habitat is in southwest Barataria Basin where oyster leases are very sparse. Our analysis also indicates that some of this area may be prone to the negative impact of high salinity, such as dermo or predation. Our conclusion, assuming the results from 2017 and 2018 are typical, is that oyster propagation and commercial harvesting opportunities in Barataria Basin may be vastly improved by the combined effects of additional freshwater to reduce the high salinity spikes in the southwest region, and by the opportunity to expand both public seed areas and private leasing in this region of Barataria Basin to increase and improve hard substrate. Both of the elements are moving forward in state planning with the Mid-Barataria Sediment diversion and with the lifting of the oyster lease moratorium. ***Our following comments on the strategic plan reflect this understanding of the Barataria Basin conditions, and endorse not only the elements of the Strategic plan in Barataria Basin, but also other coastal initiatives that may enhance oysters, including the completion of the Mid-Barataria Sediment diversion and the lifting of the oyster lease moratorium.***

Therefore, we strongly support these elements of the strategic plan within the southwest region of the Barataria Basin:

- Side scan surveys
- Establishment of new public seed areas

We also support these other relevant state initiatives to support oysters that are not part of the strategic plan:

- Opening new areas to oyster leasing in the southwest region of Barataria Basin
- Construction of the Mid-Barataria Sediment Diversion

Coastwide

We strongly support these initiatives found in the strategic plan:

- coastwide expansion of hydrologic monitoring
- research and development (see detailed comments below)
- more cultch plantings in viable areas
- water-bottom mapping
- spawning stock sanctuary network (see detailed comments below)

All of these proposals will provide a great benefit to the resource and the industry at large, and we are supportive of these efforts and hopeful that funding will be available to implement them, but we have general recommendations to improve coastwide planning of the Strategic plan (see detailed comments below):

- The strategic plan should have two planning horizons:
 - 0 to 10 years for realized benefits of the strategic plan during the pre-diversions period
 - 10 to 20 years for realized benefits after initiation of diversion operations

- A complete brood stock “vision” map for each of the Coastal Study Areas within the coast including planned, existing, or potential brood stock nursery reefs
- Establish appropriate HSI to assess oyster suitability and annually assess oyster suitability coastwide to be made publicly available
- Re-establish shell budget model and implement shell management in viable regions

Comments on some specific Initiatives 3, 10, 11 and 12:

Initiative 3 - Spawning Stock Sanctuary

- Since these reefs are collectively anticipated to be 40 acres among seed grounds that measure 1.7 million acres, we believe that these brood reefs should be a true “sanctuary”, and so they should remain entirely closed to commercial harvest so the investment can continue to grow and not require replenishment to minimize re-occurring costs.
- Up-estuary and down-estuary reefs would create a more successful mosaic of oyster resources. Based on trends of freshwater inputs over the past decade, it is a near certainty that down-estuary spawning stock reef sanctuaries would be essential larval sources to help rebuild stocks following significant flooding events.
- The final paragraph in this initiative mentions moving oysters from areas that have them but are or will be permanently closed due to Department of Health orders to build brood stock reefs in areas that are not closed. This makes good sense, but we would recommend not removing all oysters from these areas since, unless they are certain to be lost, leaving some is essentially another location for spawning stock and adds to the distribution of the overall oyster population in the state.

Initiative 10 - Mississippi River Gulf Outlet (MRGO) Hydrologic Evaluations

We do not agree with the foundational premise that this initiative will benefit the oyster resource, and in fact, we would counter that it may do more harm than good to the environment if implemented. The concept described in the strategic plan suggests that the MRGO should undergo hydrologic investigations to assess the feasibility of altering the rock dam (removal of a portion of the rocks) toward a goal of improving “tidal movement”, “hydrology” or “water quality”, and therefore, to possibly benefit oyster production in Lake Borgne. The strategic plan wisely cautions that this project was built for surge reduction and may be “difficult to implement” citing Congressional authorization and the need for Congressional action to alter the dam. We applaud the caution and wish to add some specific thoughts here for further consideration.

The existing MRGO rock dam, constructed by the Corps of Engineers in 2009, has restored the historic salinity regime both inside and outside the dam, effectively doing the job it was assigned and consequentially re-establishing the historic pre-MRGO reefs in the Biloxi Marsh. The placement of the dam was specifically designed to re-establish the natural hydrologic barrier provided by the Bayou la Loutre ridge before it was breached by the MRGO channel. The suggested goal of the strategic plan is promotion of oyster production in Lake Borgne, but this is not where oysters naturally occurred prior to the MRGO. Any re-opening creates an unnatural exchange with unprecedented consequences. Even if these unnatural habitat conditions were achieved, it could only be at the expense of increasing

salinity down estuary and threatening oyster beds that are currently being propagated and harvested in the Biloxi Marsh, and where the strategic plan has identified extensive future investments that would further enhance oyster habitat.

Contemplating even a small opening for fishing boat traffic would likely trigger an EIS or equivalent study to analyze potential changes to the salinity in the channel itself, and particularly to areas on the outside of the structure, including the oyster resources of Lake Athanasio. Determining the actual numbers of users that would benefit from this type of opening will also be an important consideration to insure it is worth the effort and money that would be required for even modest design and construction. Additionally, since this is a federally-authorized Corps of Engineers project, any investigations will likely have to meet Corps' E&D standards, and any project changes require Congressional action. Even if this could be achieved, long-term maintenance and liability of a modified structure is still in question—we are curious to know if changes made to the structure, if funded by the department through this strategic plan, will require the department to be responsible for future operation and maintenance, financial and legal burdens.

Regardless of hypothesized benefits (such as altered Bonnet Carre Spillway flow), any alteration of the rock dam must be evaluated for the full breadth of potential environmental impacts and risk of enhancement of storm surge. Extensive hydrologic modeling under normal tidal conditions and hurricane storm conditions need to be conducted as a prerequisite to beginning permit considerations for 404 and 408 permits. The \$1.6 million noted in the oyster strategic plan could go some of the way toward answering the many questions that will be required for this project, but will not be enough to complete the work.

Initiative 11 – Evaluation of Restoration of the Bohemia Spillway Water Control Structure

This initiative seeks to re-establish a water control structure across Mardi Gras Pass in Plaquemines Parish. The cost associated with the concept is \$24.3 million, with the stated goal of creating “...the ability to manage hydrology to benefit oyster resources within the area of influence of Mardi Gras Pass.”

The continued widening of Mardi Gras Pass is driven by natural processes and it will not be a simplistic endeavor to control the flow now in 2020 or in the coming years. The pass was created by natural river flow within the Bohemia Spillway during river floods in 2011 and 2012. Like other natural river outlets, it has been and continues to be self-organizing—similar to a natural delta—and consequently has built new wetlands.

The strategic plan hypothesizes that a structure at MGP “has facilitated hydrologic change in the Breton Sound area in combination with other freshwater influences” leading to decreases in salinity and diminishing oyster production. However, LDWF data show that oysters had declined in the Breton Basin (CSA I south) prior to the creation of the pass in 2012. This hypothesis will need to be carefully tested before cost or design of a project could reasonably be understood.

Additionally, the cost shown for this project in the strategic plan was based on a now-dated report conducted by a contractor for the previous administration in Plaquemines Parish, around the 2016-2018 timeframe. Much has changed across the landscape of the Bohemia Spillway, and specifically at Mardi Gras Pass, during this time and any attempts to understand today's costs and realistic outcomes of a water management structure would have to be preceded by a comprehensive study effort to understand the current hydrology and size of the pass and the hydrology of the surrounding areas—including the 150,000 CFS discharging from the MS River at Fort St. Philip and the implications of that volume of water to the oyster leases throughout the entire area.

And finally, recreational and commercial fishermen have been identified as potential supporters of this closure/control structure initiative, but PC has engaged with recreational groups and individuals who feel that leaving MGP open is a benefit to fisheries productivity in the area.

Initiative 12 Research and Development (R&D)

We fully support the vision of R&D in the strategic plan which states:

“developing a science-based, data-driven decision-making platform to inform LDWF’s efforts at rehabilitating Louisiana oyster resources, considering future conditions (landscape, hydrology, and episodic/sporadic events, etc.) and utilizing a multi-faceted approach (source/sink reefs, AOC, living shorelines, and spat-on-shell seeding) to enhance resilience of recovering oyster populations, while avoiding areas not suitable for current or future oyster production; allowing for efficient utilization of funding as it becomes available by identifying suitable areas for various restoration techniques most likely to succeed in expanding oyster habitat and providing long term sustainability”

We make the following additional suggestions to help achieve the strategic plan’s vision:

1. Establish appropriate planning horizons for oyster management. We suggest the current strategic plan be for a total ten-year planning horizon, including the five-year implementation period. However, we suggest the R&D focus on a longer planning horizon that includes post-operation of major diversions, i.e., 10 to 20 years from the present. R&D should focus on how to optimize the transition from the pre-diversion period to the operational-diversion period.
2. Establish appropriate and standardized HSI’s for oysters and possibly separate HSI’s for a different low salinity strain if such a strain is identified.
3. The brood reef network is included in the strategic plan, but it only shows the new brood reefs proposed. A map should be developed for each of the sub-basins of the total array of brood reefs envisioned, including those already present and others that might be built by other entities. This will allow everyone to see and understand the goals of the brood reef network.

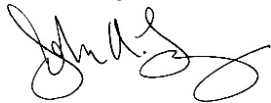
4. The shell budget tools should be updated and applied for management of cultch and hardbottom availability.

With existing NRDA dollars, funding is on the horizon from the CARES Act, the 2019 Fisheries Disaster Declaration, CPRA, etc. The projects envisioned in the strategic plan are off to a strong financial start. Some funding within the strategic plan can and should be shuffled if certain projects do not hold up under finer scrutiny and others are more attainable. For the strategic plan to succeed, it will need more funding than is presently identified, and committed partners—including LDWF, CPRA and the Office of the Governor—to ensure implementation of the administration’s vision.

A successful oyster strategic plan should provide improvements to oyster ecology and oyster reefs while enhancing the commercial productivity of the oyster resource in harmony with the state planning for a sustainable coast. It should also seek ways to identify, avoid, and mitigate conflicts with integrated coastal protection projects found in the state’s Coastal Master Plan with a particular focus on planned diversion projects located on both the western and eastern banks of the Mississippi River. We believe the opportunity exists for LDWF to work together with partners at the CPRA to provide relief to the industry and resolve some of the conflict between the oyster industry and the state’s Coastal Master Plan.

As always, we appreciate the opportunity to comment on the work of the department through this open public comment period.

Sincerely,



John Lopez, Ph.D.

Director-Coast and Community Program Pontchartrain Conservancy
504 421 7348 jlopez@scienceforourcoast.org

CC: Kristi Trail PE
Executive Director Pontchartrain Conservancy

Cynthia Duet
Consultant Coastal Consilium, LLC



December 3, 2020

Carolina Bourque
Louisiana Department of Wildlife and Fisheries
Oyster Program Manager
200 Quail Drive
Baton Rouge, Louisiana 70898
cbourque@wlf.la.gov

Re: RESTORE the Mississippi River Delta Campaign Comments on Oyster Management and Rehabilitation Strategic Plan

Dear Ms. Bourque,

On behalf of RESTORE the Mississippi River Delta Campaign (MRD), we submit these comments in response to solicitation by the Louisiana Department of Wildlife and Fisheries regarding the Oyster Management and Rehabilitation Strategic Plan. We recognize that many proposed initiatives are designed to achieve the same end and we offer comments on specific initiatives below. We applaud the department's work and support this comprehensive approach to enhance the overall health of the oyster resource and also consider coastal resilience strategies in alignment with recent initiatives. Those include Louisiana's Seafood Futures and Executive Order JBE 2020-19 on Coastal Resilience.

Our groups envision a thriving oyster fishery as a critical part of a coast into the future. And we recognize that the one certainty with respect to the oyster habitat and fishery and our coast more broadly is that changes are inevitable. The resource has seen remarkable changes as we have lost wetlands to open water and with increased freshwater flows from the Mississippi River watershed in recent years, as well as hurricanes and the oil spill. The places where oysters are most productive have changed and are still changing. Moreover, the way we live and work on our coast is changing and we are taking steps to intentionally shape the coast, as contemplated in the coastal master plan. This involves hard choices about our course that will determine what it will be like into the future. We must approach this task through a deliberate collaborative process to build collective success.

It is in this spirit that we suggest that LDWF prioritizes its limited available funding to initially implement tried-and-true techniques such as cultch plantings, remote-set oysters, and development of additional hatcheries that can produce seed at a commercial scale for varied uses. These along with conducting water bottom mapping, monitoring hydrologic conditions, expanding alternative oyster culture to augment reef populations, developing a spawning stock sanctuary network, and carrying out robust research and





development will be integral to over success. Achieving success will require a continued collaborative process to identify and alleviate conflicts between the oyster industry and the State's coastal program.

LDWF should consider adopting planning horizons for the oyster resource, generally, and the post-operation of major diversions, i.e., 10 to 20 years into the future. Perhaps the current strategic plan should be on a ten-year planning horizon, including the five-year implementation period. Consideration should also be given to setting periodic numeric and/or metric goals to maximize resource benefits – similar to the department's ongoing initiative to rehabilitate and manage the speckled trout fishery.

Further, we suggest the establishment of a standardized habitat suitability index (HSI) for oysters and development of a map for each of the sub-basins depicting the total array of brood reefs envisioned, including those already present and planned. This will allow everyone to see and understand the goals of the brood reef network. Additionally, the shell budget tools should be updated and applied for management of cultch and hardbottom availability.

Relative to specific initiatives, we make the following comments:

Initiative 1: Traditional Cultch Planting and Water-Bottom Mapping. We are supportive. A comprehensive water bottom assessment will be critical to accomplishing the goals of subsequent initiatives ensuring overall success of the oyster strategic plan. This initiative notes the potential benefits of recycled shell, which we also support using as cultch over other materials.

Initiative 2: Cultch Planting of Remotely Set Oysters. We are supportive of this initiative. Cultch planting with remote-set oysters may be critical to repair the degraded conditions of the public grounds. If coupled with a management plan to allow the set oysters to grow to market size this could allow smaller operating oyster harvesters, those with few to no leases, to again be able to secure some income from this once plentiful public resource. It is strongly recommended that remote setting occur on recycled oyster shells so that material is being returned to the environment and since oyster shells are superior cultch material for remote setting. The long-and short-term benefits of this initiative will depend on future hydrologic conditions and highly rely on the success of initiative one.

Initiative 3: Development of Spawning Stock Sanctuary Network. We are very supportive of the Department's initiative to establish a spawning stock sanctuary network. This will be a crucial management tool if mature spawning oysters are to be maintained. Development of non-harvested sanctuaries can largely help the natural reef population and result in a number of environmental and ecological benefits. These areas will further allow larval oysters that drift in currents and colonize newly prepared reefs and hard bottom areas. This initiative notes the potential benefits of recycled shell, which, as previously stated, we support using.



Initiative 4: Expansion of Alternative Oyster Culture (AOC). We are supportive of this initiative. Supporting the growth of AOC has great potential to provide viable options for raising marketable oysters while reducing reliance on Louisiana's public oyster reefs and augmenting the resource population, creating jobs and economic alternatives for coastal fishing communities as coastal conditions change. In order for the AOC industry to reach industry growth potential, investments must be made to break down industry access barriers including, establishing a reliable source of oyster seed; developing education and training opportunities that facilitate peer-to-peer engagement and offer permitting support; and identifying and designating suitable coastal areas for AOC cultivation. This initiative should be prioritized.

Initiative 5: Private Oyster Lease Rehabilitation (POLR) Program. We are supportive of this initiative and urge the department to consider multi-layered benefits that can be derived from incentivizing increased oyster population relative to ecological, environmental and economic opportunities, including the use of areas to support transition in fishers in utilizing new oyster production techniques.

Initiative 6: Expansion of Hydrologic Monitoring. We are supportive of the Department's plan to install additional Data Collection Platforms (DCPs) at strategic locations across the coast. The information garnered by the DCPs is absolutely critical to the future management of the state's oyster resource, and the data collected will also help to achieve a better understanding of estuarine conditions—and changes and trends—through the USGS Streamflow Network.

Initiative 7: Evaluation of Leases Incapable of Oyster Production. We are supportive of this initiative. Areas determined incapable of producing oysters by LDWF should not be renewed upon expiration of the lease term. As referenced in the beginning of this report, physical space in the coastal area is at a premium and areas incapable of oyster production could and should be used for other purposes. While this initiative will provide some near-term relief for competing uses of water bottoms, we recommend a thorough assessment of water bottoms continue even after the five-year period of this plan.

Initiative 8: Establishment of Cultivation and Production Requirements on Leases. We are supportive of the concept of the establishment of cultivation and production requirements for oyster leases as described by LDWF. Once a requirement of lease renewal, this requirement was removed from state law in the early 2000s. Given limited space in the coastal area for a variety of sometimes conflicting uses, water bottoms leased for oyster production should be used for their intended purpose.

Initiative 9: Establishment of New Public Oyster Area. We are supportive of this initiative. This and other initiatives like development of a spawning stock sanctuary network and living shorelines are integral to the overall success and to ensure thriving oyster generations in the future.

Initiative 10: Mississippi River Gulf Outlet (MRGO) Hydrologic Evaluations. After decades of ecosystem degradation and outcry from communities, the Mississippi River Gulf Outlet (MRGO) was finally closed after





the catastrophic devastation of Hurricane Katrina, in which the MRGO played a major role. Now entering its second decade of closure, the Mississippi River Gulf Outlet's Corps-constructed rock dam has restored the historic salinity regime both inside and outside the rock dam, effectively doing the job it was assigned and consequently re-establishing the historic pre-MRGO reefs in the Biloxi Marsh. The siting of the dam was to specifically re-establish the natural hydrologic barrier provided by the Bayou la Loutre ridge until the MRGO channel breached the ridge. Any re-opening creates an unnatural exchange with unknown consequences. The suggested goal of the plan is to promote oyster production in Lake Borgne, but this is not where oysters naturally occurred prior to the MRGO. Even if these unnatural habitat conditions were achieved, it could only be at the expense of increasing salinity down estuary and threatening oyster beds that are currently being propagated and harvested in the Biloxi Marsh, where the plan has extensive investment to further enhance oyster habitat.

Contemplating even a small opening for fishing boat traffic would likely trigger an EIS or equivalent study to analyze potential changes to the salinity in the channel itself, and particularly to areas on the outside of the structure, including the oyster resources of Lake Athanasio. Determining the actual numbers of users that would benefit from this type of opening will also be an important consideration to ensure it is worth the effort and money that would be required for even modest design and construction.

Additionally, since this is a federally-authorized Corps of Engineers project, any investigations will likely have to meet Corps' engineering and design standards, and any project changes require Congressional action. Even if this can be achieved, long-term maintenance and liability of a modified structure is still in question—if the Department funded the project, would that be a future operation and maintenance, financial and legal burden for LDWF?

Regardless of hypothesized benefits (such as altered Bonnet Carre Spillway flow), any alteration of the rock dam must be evaluated for the full breadth of potential environmental impacts and increased vulnerability of communities along the channel. Extensive hydrologic modeling under normal tidal conditions and hurricane storm conditions needs to be evaluated as a prerequisite to begin permit considerations for 404 and 408 permits. The \$1.6 million noted in the oyster strategic plan will go some of the way to answering the many questions that will be required for this project to be properly vetted.

Initiative 11: Evaluation of the Restoration Bohemia Spillway Water Control Structure. With a listed price tag of \$24.3 million, the plan's Initiative 11 suggests that reestablishment of water control on Mardi Gras Pass on the East bank of the Mississippi River in Plaquemines Parish would “allow the ability to manage hydrology to benefit oyster resources within the area of influence of Mardi Gras Pass.”

The creation and widening of Mardi Gras Pass are driven by natural processes and it will not be a simplistic endeavor to control the flow now in 2020, or in coming years. The pass was created by natural river flow within the Bohemia Spillway during river floods in 2011 and 2012. Like other natural river outlets, it has been





and continues to be self-organizing, similar to a natural delta and consequently has built new wetlands.

Further, the cost noted for this project, as noted in the plan, was based on an incomplete and dated report conducted by a contractor for the previous administration in Plaquemines Parish, around the 2016-2018 timeframe. Much has changed across the landscape of the Bohemia Spillway, and specifically at Mardi Gras Pass during this time, and any attempts to understand today's costs and realistic outcomes of a water management structure would have to be preceded by a comprehensive study effort to understand the current hydrology and size of the pass and the hydrology of the surrounding areas—including the 150,000 CFS discharging from the MS River at Fort St. Philip and the implications of that volume of water to the oyster leases throughout the entire area.

The strategic plan hypothesizes that a structure at MGP “has facilitated hydrologic change in the Breton Sound area in combination with other freshwater influences” leading to decreases in salinity and diminishing oyster production. However, LDWF data show that oysters had declined in the Breton Basin (Coastal Study Area 1-south) prior to the creation of the pass in 2012. The underlying causes of decline that long pre-date the formation of Mardi Gras will need to be understood before additional cost for design of a project that might have no benefits for oysters is undertaken.

And finally, recreational and commercial fishermen have been identified as potential supporters of this closure/control structure initiative, but our groups have engaged with several recreational groups and individuals who feel that leaving MGP open, “as-is”, is a benefit to fisheries productivity in the area.

Initiative 12: Research and Development (R&D). We fully support the vision of R&D in the plan.

We make the following suggestions to help achieve this vision.


- Establish appropriate planning horizons for oyster management. We suggest the current strategic plan be for a total of a ten-year planning horizon, including the five-year implementation period. We also suggest the R&D focus on a planning horizon post-operation of major diversions, i.e., 10 to 20 years into the future. R&D should focus on how to optimize the transition of the pre-diversion period to the post-diversion period.
- Establish appropriate and standardized HSI's for oysters and possibly a separate HSI for a different low salinity strain if a strain is identified.
- Establish a map depicting current and planned brood reefs. The brood reef network is included in the plan, but it only shows the new brood reefs proposed within this plan. A map should be developed for each of the sub-basins of the total array of brood reefs envisioned, including those already present and others that might be built by other entities. This will allow everyone to see and understand the goals of the brood reef network.

RESTORE

THE MISSISSIPPI RIVER DELTA



MississippiRiverDelta.org

 /MississippiRiverDelta



@RestoreDelta

- Establish updated protocol for managing in-place reef substrate. The shell budget tools should be updated and applied for management of cultch and hard bottom availability.

Oyster restoration is needed now more than ever before as oysters are a critical component of a functioning ecosystem in Louisiana. We urge LDWF and all relevant agencies to consider their respective roles when allocating money through this plan for all beneficial uses for all stakeholders as work on this plan continues. We further encourage the department to develop similar comprehensive strategic plans for other fisheries, including shrimp, crabs and finfish.

We appreciate the opportunity to comment on the Oyster Rehabilitation and Strategic Management Plan. Thank you for considering our comments.

Sincerely,

RESTORE the Mississippi River Delta Campaign

Steve Cochran
Campaign Director, RESTORE the MRD/
Associate Vice President, Coastal Resilience
Environmental Defense Fund

Kimberly Davis Reyher
Executive Director
Coalition to Restore Coastal Louisiana

John Lopez, Ph.D.
Director, Coastal Sustainability Program
Pontchartrain Conservancy

Brian Moore
Vice President, Gulf of Mexico Policy
National Audubon Society

David Muth
Director, Gulf Restoration Program
National Wildlife Federation

Natalie Snider
Senior Director, Coastal Resilience
Environmental Defense Fund





P.O. Box 2245
New Orleans, LA 70176

504.525.1528
healthygulf.org

December 4, 2020

Carolina Bourque, Oyster Program Manager
Office of Fisheries
Louisiana Department of Wildlife and Fisheries
P.O. Box 98000
Baton Rouge, LA 70898

RE: Draft Louisiana Oyster Management and Rehabilitation Strategic Plan

Dear Ms. Bourque,

Please accept these comments on behalf of Healthy Gulf regarding the draft Louisiana Oyster Management and Rehabilitation Strategic Plan. Healthy Gulf (formerly Gulf Restoration Network) is a 26 year old non-profit with a mission to collaborate with and serve communities who love the Gulf of Mexico by providing the research, communications, and coalition-building tools needed to reverse the long pattern of over exploitation of the Gulf's natural resources. We have hundreds of members and over 10,000 e-supporter in Louisiana. In addition, we work with dozens of chefs and restaurateurs who have a vested interest in maintaining abundant and resilient oysters stocks in Louisiana and throughout the Gulf region.

We also submitted separate comments as a member of the MRGO Must Go Coalition.

We appreciate the comprehensive approach taken in the Strategic Plan and particularly support the initiatives that promote increasing oyster habitat, biological productivity and resiliency. Notably, the intent and purpose of many of the initiatives overlap. Better connectivity among them could be more clearly drawn to maximize funding and implementation efficiencies.

Specifically, our primary recommendations for developing and implementing the Strategic Plan include:

- The top priority in the goals and objectives should be to increase and sustain oyster habitat and biological production to provide the full suite of ecosystem services, including an abundant population that can also support a sustainable fishery. As such, oysters in the public areas should be restored and managed primarily as crucial habitat for a wide range of marine species.
- Funding and implementation strategies should prioritize enhancing oyster habitat in public areas and increasing their footprint and resilience through a network of broodstock reefs (i.e., spawning stock sanctuaries). This should include funding monitoring, model development and mapping projects across initiatives to help determine optimal sites for broodstock reefs.
- New management and restoration policies may be needed to ensure the success of a broodstock sanctuary network. These could include creating a new regulatory category to allow spawning reef sanctuaries full protection from harvest.
- Shell retention and recycling programs should be created and expanded through regulatory and/or funding mechanisms to generate much needed substrate for cultch planting, restoration and spawning reef enhancement to achieve multiple initiatives.



Abundant oyster populations are vital to healthy coastal ecosystems and the vibrant seafood industry that is so important to Louisiana's and the Gulf's economy. Unfortunately, oyster populations throughout the Gulf of Mexico, including Louisiana, are struggling. COVID-19 closures have hit restaurants hard, and oyster farmers are reporting dramatically reduced demand for their product. Natural and man-made disasters, including the opening of the Bonnet Carre Spillway twice in one year, decimated oyster populations in many areas.

It is now more important than ever to fund science-based, comprehensive rehabilitation projects to help boost oyster recovery in Louisiana. The best way to increase and sustain oyster habitat productivity and resilience is to ensure sufficient oyster habitat remains intact. This requires ample substrate and no harvest or removal as proposed in a strategically located network of broodstock sanctuaries [Initiative 3].

Unharvested spawning reefs not only provide beneficial ecosystem services, they help replenish oysters in surrounding areas open to harvest through larvae dispersal. Spawning reefs provide substrate through shell accretion for oyster larvae to settle on and produce more larvae that can seed nearby reefs. This ecological connection is important for overall oyster recovery and sustainability. In this way, the unharvested spawning reefs can support other restoration efforts and directly contribute to the oyster fishery over time as they contribute to the productivity of the entire reef system.

Left undisturbed, oysters on spawning reefs can grow larger and older, producing more larvae and contributing more to ecosystem reproductive potential and recruitment. Importantly, reefs with multiple age classes that have a good balance of younger, smaller oysters (mostly male) with a high density of older, larger adults (mostly females) have higher recruitment potential. To achieve that balance, experts recommend maintaining spawning reefs (unharvested) for at least six years post-construction. However, to maintain multiple age classes and a balanced size frequency distribution with a high density of adult oysters (e.g., >15 per square meter), no or very limited removal may be necessary. On the other hand, high densities of mostly smaller and younger oysters may not be sufficient for reproduction efficiency.

Over time, these spawning reefs will accrete shells, which maintain or increase the reef habitat remaining in the water. That allows oysters to accumulate at a rate that exceeds shell loss and sediment deposition. Greater accretion enhances reef height and complexity, which provides improved habitat quality. Higher reefs allow oysters to live above the seafloor and be less susceptible to depleted oxygen levels and avoid predation. Increased reef height also provides better shoreline protection and wave energy stabilization. In summary, reefs with oysters of varying size and age, positive shell accretion rates and increased height and coverage lead to a higher likelihood that reproduction contributes to recruitment at other nearby reefs (i.e., in harvested areas).

Determining the optimal locations for spawning reefs is key to their success and requires high quality environmental data acquired through monitoring [Initiative 6], mapping [Initiative 1], cultch and remote-set oysters to boost initial productivity [Initiative 2], substrate generated through shelling programs, and scientific research and modeling [Initiative 12]. Additionally, broodstock sanctuary reefs



should be sited in areas that are permanently closed to harvest, which may require a change in regulations to allow for oyster restoration for the sole purpose of habitat creation and reproduction. Identifying the most appropriate mechanism to accomplish this could be incorporated into the guidance document proposed in Initiative 12.

Likewise, for Initiative 12, the primary focus area for research and development should be identifying areas for a network of sanctuary reefs in connectivity to public seed grounds, private lease areas, and possible aquaculture areas. This will require funding for data collection, mapping, and modeling identified in several of the initiatives. In particular, the connectivity of “up-estuary” areas identified in the Strategic Plan for potential spawning stock reefs should be verified with larval transport modeling and field observations. The strategy for identifying these areas should be addressed in any guidance document created under Initiative 12.

Projects and funding needs across initiatives should be integrated to focus on the highest priorities and maximize efficiencies. For instance, the siting of Aquaculture Parks (Initiative 4) could be done in conjunction with siting of sanctuary reefs, public seed grounds or private lease areas. This could facilitate the capture of larvae for recruit development and reef enhancement when diploids are used in off-bottom aquaculture operations. Research and modeling can help draw those connections (Initiatives 12 and 3, respectively).

Additionally, new or expanded shell recycling programs such as the one run by the Coalition to Restore Coastal Louisiana could be established or expanded under Initiative 1 to not only enhance substrate in public oyster areas but also to support development of spawning sanctuaries (Initiative 3). Potential regulatory and funding mechanisms, such as dealer or retail fee-based or tax credit systems, to enable long-term shell retention and recycling programs should be vetted and included in the guidance document proposed in Initiative 12. Well-run and funded shelling programs could then supplement many of the initiatives over the long-term, including cultch-planting and remote-setting in broodstock sanctuaries, public seed grounds and private lease areas.

Ultimately, the cumulative goals of the Strategic Plan’s initiatives primarily relate to increasing and maintaining healthy oyster habitat. This comprehensive approach can be accomplished with adequate funding, data and science and by ensuring the regulatory regime aligns with the objectives over the long term. Protecting and enhancing the resiliency of oyster habitat through the deliberate creation of a network of spawning reefs and managing oysters primarily as crucial habitat, rather than just a fishery, is paramount to maintaining abundant oysters and healthy coastal waters that can support a robust fishery.

We commend Louisiana for taking a bold and comprehensive approach to oyster management and rehabilitation. We look forward to working with the agency as it further develops and implements this Strategic Plan.

Thank you for considering these comments.

Sincerely,



P.O. Box 2245
New Orleans, LA 70176

504.525.1528
healthygulf.org

A handwritten signature in black ink, appearing to read "Raleigh Hoke", followed by a horizontal line.

Raleigh Hoke
Campaign Director

From: David Sorrells [<mailto:jdsorrells@gmail.com>]
Sent: Monday, December 7, 2020 4:01 PM
To: Carolina Bourque <cbourque@wlf.la.gov>
Subject: Oyster management

EXTERNAL EMAIL: Please do not click on links or attachments unless you know the content is safe.

We need.....yes NEED to open up more areas for Alternative Oyster Culture.

It's a win win for Oysters and Louisiana. Florida and Alabama are surpassing us in this industry quickly and with Texas passing Legislation last year they also are about to explode into this industry.....WHY? Because they all see the value in it for the States, the farmers, and the environment.

Is it coincidence that Terry Shelley has moved more into this sustainable practice.....

The main thing is it takes pressure OFF the wild harvest. It Makes since, however I am afraid we've spent so much of our time playing politics that it may be too late. I was in New Orleans this last weekend (12/5/2020) Most of the half shell, high end places we infiltrated with Alabama oysters.....go figure.

OPEN UP MORE WATERS FOR THE FARMING OF OYSTERS AND WATCH HOW THE ENTIRE INDUSTRY IMPROVESS !!!!!

David

Dear Secretary Montoucet,

After reading the initiatives of the Oyster Management and Rehabilitation Strategic Plan, I have concerns that some of these initiatives, if implemented, would not be the best use of these funds to restore our industry .

It's my understanding that the LA Oyster Task Force had no voice or input in this plan. There are a couple of these initiatives that I feel as a 40-year lease holder, oyster cultivator and distributor in the St. Bernard Parish/Lake Borgne area I cannot support. With that said, I kindly request that these proposed initiatives be tabled and put on hold until discussions are held with oyster cultivators, dealers and distributors of our state. It's my strong opinion, that we in the industry should be consulted and our opinions heard before any any decisions are made that can possibly impact our industry in a negative way.

Sincerely,

Michael D. Cure
Pearl River Fisheries/Bayou Carlin Fisheries
228.323.4647 cell
Mikecure123@gmail.com

~~From: Mitch [redacted] Mitch@ [redacted].com~~
Subject: Louisiana Oyster Management and
Rehabilitation Strategic Plan
Date: Dec 9, 2020 at 1:39:31 PM
~~To: [redacted] Mitch@ [redacted].com~~

Dear Secretary Montoucet:

The original drafting of this plan was developed without any input from the oyster industry representatives and it's members therefore making this a flawed process. For that reason I must oppose this plan as written due to the fact that several of the initiatives do not promote the oyster industry and will most likely have a negative impact in how we move forward.

Thanks,

Bruto Madjo

Sent from my iPhone

Dear Secretary Jack Montoucet,

The original drafting of this plan was developed without any input from the oyster industry representatives and it's members, therefore making this a flawed process. For that reason, I must oppose this plan as written, due to the fact that several of the initiatives do not promote the oyster industry and will most likely have a negative impact in how we move forward.

Thank you,

Eddie Kurtich

Eddie's Quality Oysters, Inc.

Dear Secretary Montoucet:

The original drafting of this plan was developed without any input from the Oyster industry representatives and its members therefore making this a flawed process. For that reason I must oppose this plan as written due to the fact that several of the initiatives do not promote the Oyster industry and will most likely have a negative impact on how we move forward.

Thanks,

Brooks Thompson

Dear Secretary Montoucet:

The original drafting of this plan was developed without any input from the Oyster industry representatives and its members therefore making this a flawed process. For that reason I must oppose this plan as written due to the fact that several of the initiatives do not promote the Oyster industry and will most likely have a negative impact on how we move forward.

Thanks

Russell Lewis Thompson

Dear Secretary Montoucet:

The original drafting of this plan was developed without any input from the Oyster industry representatives and its members therefore making this a flawed process. For that reason I must oppose this plan as written due to the fact that several of the initiatives do not promote the Oyster industry and will most likely have a negative impact in how we move forward.

Thanks,

Chad Phillips

Dear Secretary Montoucet:

The original drafting of this plan was developed without any input from the Oyster industry representatives and its members therefore making this a flawed process. For that reason I must oppose this plan as written due to the fact that several of the initiatives do not promote the Oyster industry and will most likely have a negative impact in how we move forward.

Thanks,

Jonathan Phillips

Dear Secretary Montoucet:

The original drafting of this plan was developed without any input from the Oyster industry representatives and its members therefore making this a flawed process. For that reason I must oppose this plan as written due to the fact that several of the initiatives do not promote the Oyster industry and will most likely have a negative impact in how we move forward.

Thanks,

Roland Phillips

Dear Secretary Montoucet:

The original drafting of this plan was developed without any input from the oyster industry representatives and its members therefore making this a flawed process. For that reason I must oppose this plan as written due to the fact that several of the initiatives do not promote the oyster industry and will most likely have a negative impact in how we move forward.

Thanks,

Shawn Thompson

Good Morning Carolina,

Here are additional comments on the Oyster Management Plan

J.D. "Zach" Lea, PhD

Lack of Authority

Mardi Gras Pass illustrates the inability of the LDWF to effectively manage the State's oyster resources in face of the authority of the CPRA to control water flow and apparent anti-oyster-industry bias of powerful public opinion in the coastal zone.

Had river-water from a similar breach damaged farms and communities anywhere else in the Mississippi drainage basin, the national, state, local governments, and non-governmental organizations would have immediately set about indemnifying the people negatively impacted by the associated flood. The USACE would have immediately taken steps to close the crevasse and build back better the flood protection provided by the natural river ridge. The reconstruction of the river ridge at Old River and the Bonnet Carré protection system are examples that come to mind.

To take no action to assist the oyster farmers impacted by the crevasse and to protect their oyster farms from destruction by the freshwater flooding is to go against State and US policy on controlling the River for the protection of economic and social interests. Without the bias against the oyster industry, CPRA would justify closing the pass with reference to its Coastal Master Plan to protect and restore the coastal zone---which includes the rebuilding of river ridges. Asking the LDWF to manage oysters in the current administrative context is like asking a farmer to manage a herd of grass-fed cattle without authority to manage the grass.

Return to the Garden of Eden

Two of the NGOs offering comments (and co-signed by several other NGOs) have pointed out that Mardi Grass Pass was created and continues to widen due to "natural processes" involving "natural river flow." Further, they write that "Like other natural river outlets, it has been and continues to be self-organizing, similar to a natural delta and consequently has built new wetlands." These comments appear to be an appeal to take no action to close the pass since it was created by "natural processes."

We should not be persuaded by such an appeal. The history of humanity is a record of our species' efforts to protect itself against natural processes. Human effort to clothe, house, feed, maintain our health, protect ourselves and property from storms, and protect our Nation from invasion is an effort against natural processes. Had our policy been otherwise, we would have no levees in the Mississippi valley.

Thank you for considering these additional comments.

John Dale "Zach" Lea, Ph.D.
Agricultural Economist

Sustainably Smart Projects
985-272-3681
jdzlea@hotmail.com



America's Leading Oyster Processing Company

December 10, 2020

Carolina Bourque, Oyster Program Manager
Office of Fisheries
Louisiana Department of Wildlife and Fisheries
P.O. Box 98000 Baton Rouge, LA 70898

RE: Comments to the Draft Louisiana Oyster Management and Rehabilitation Plan

Dear Ms. Bourque,

I preface this letter by stating that regardless of what may seem as mostly critical comments about the draft plan, and how it was developed, I am heartened that the state is (seemingly awakened to) acknowledging the importance of its oyster resources and has begun the discussion on ways to help rebuild and sustain this long standing renewable natural asset.

I am a 63 year old 4th generation oyster farmer and own an oyster processing plant in Louisiana. I am also a member of the La. Oyster Task Force (LOTF), and have been representing the interests of Louisiana oystermen for over 35 years. Firstly, it is my humble opinion that it was a disservice that the department had not consulted more closely with the LOTF previous to this draft release. Issues like these are most important to us, and are why we chose to volunteer our services to the LOTF.

As acknowledged in numerous reports, Louisiana's oyster resources have been battered this past decade by natural and man-made disasters. Additionally, numerous coastal restoration proponents and unimaginative coastal engineers have taken the small minded position that we are in a zero sum game. They believe that in order to save our coast, the state has to flood river water into the estuary, destroying some of the most productive and irreplaceable oyster reefs in the world. That type of thinking is the root of our long-term problem.

For example, the river crevasse in the Bohemia Salinity Control Structure (Mardi Gras Pass) was allowed to expand uncontrolled. The fresh water diversion zealots did not mind that it destroyed fishing communities and killed our most important oyster reefs, causing hundreds of millions of dollars in losses to fisheries. Inaction by the local and state coastal and fisheries managers and public officials is an indicator of the cloud of ineffective water management and anti-fisheries policy that lingers even today. The lack of oysters on the public seed grounds east of the river, and the oyster leases that are incapable of oyster production that you reference in your management plan are symptoms of the problem and not the root of the problem. Overall the biggest deficiency in your draft plan is that it spends a lot of wasted effort and diverts funding into treating the symptoms instead of curing the root problem. We

are better off dealing with the root problem first and foremost. The root problem is salinity control and water quality.

In dealing with the public seed grounds east of the river we are fortunate to have had a perfectly good working oyster ecosystem there for many decades. We had natural up-basin and down-basin spawning stock. Resource managers and oystermen knew that salinity control was a key to oyster propagation and survival. Federal, State, and local authorities worked together to design and build numerous fresh-water diversions in order to be able to better control salinity. (River diversions at Bohemia, White Ditch, Bayou Lamouque, and lastly Caernarvon) In wet cycles the oyster resource moved to the outer reefs, while in dryer cycles inshore areas flourished. Oyster production has historically always been cyclical. That is normal and should not be seen as a problem. Historically, it was also quite dependable and normal to see dramatic increases in oyster resource (spat) following in a year or two whenever a high river event (freshet) occurred.

This past decade, however, we have experienced numerous freshets but we have not seen the rebound in seed resources that normally, historically would have occurred. That indicates that something else has changed besides salinity. This is an area that needs more research: What is causing the failure in larval survival? Is something in the water quality that is killing oyster larvae? Acid rain? . . . Industrial compounds? . . . biological/pharmaceutical waste? . . . agricultural compounds?

Furthermore, your plan speaks of creating spawning stock sanctuaries and the benefit of vertical reefs. In reality, we already have a broad-based built-in network of small vertical reef structures in the numerous oil wells, pipelines, pilings, channel markers, derelict trash and beer cans throughout the estuary. These "reef structures" are not commercially or recreationally harvested and subject to fishing pressure. Normally finding oysters on hard substrates along shorelines and on vertical structures in the estuary is a good indicator of a healthy estuary that will support oysters. My personal observation in recent years is that I see no significant amount of oysters to be found growing on these structures either. This leads us back to: Is there something in the water that is killing oyster larvae? Again, we need that researched; we need that answered.

Comments regarding the specific initiatives as described in the draft are as follows:

Initiatives # 1 & 2: Generally in support

Initiative # 3: Regarding development of spawning stock sanctuaries, the department does not have to spend money on building new sanctuary reefs; we already have a lot of great natural reefs. As described above, we already had a perfectly good working system on the public reefs and private leases east of the river. It's very clear that the upper estuary larval sanctuary was killed off when the state flooded the upper estuary with Caernarvon river water during the BP oil spill. In response, what needs to be done now is strategic planting of mature oysters in the system in order to restart the natural oyster cycle. We have already have seed reservation in Bay Gardene, and it would not cost much to create another if deemed necessary. But, keep in mind, all this is a useless waste of money unless you deal with the root problem, which is salinity control and water quality.

Initiative # 4 & 5: Generally in support

Initiative # 6: Hydrologic monitoring is a good thing for the state to invest in and have. But, this expenditure is clearly not only strictly related to rehabilitation of the oyster resources. I therefore question placing this entire expenditure on the account of oyster rehabilitation and management.

Initiative # 7: Evaluation of oyster leases incapable of oyster production is an attempt to address a symptom of the root problem, salinity control. Many oyster leases that were previously productive are currently affected by fresh water from river diversions or crevasses. The LOTF and the state legislature have worked on this issue in the past and have proposed addressing the situation with a program that would allow affected oyster growers to relocate their leases to newly created oyster lease zones with better hydrology and water quality. The department should pick up and re-invigorate that project, creating new opportunities for oyster farm investment instead of wasting money on analyzing existing old oyster leases.

Initiative # 8: Establishment of cultivation and production requirements is an administrative function that was actually already in place for a long time, but dropped because it was deemed ineffective. This is not a big issue and it can be addressed easily by having the department work with industry in re-establishing a viable system. It would be very wasteful to spend five million dollars on something this simple.

Initiative # 9: Establishment of new public oyster areas is not needed. We already have an expansive public oyster area. If there is a desire for any changes to the areas, it is mainly a administrative function and will take Commission action. To allocate \$5 million on this is a waste of money.

Initiative # 10: Generally in support.

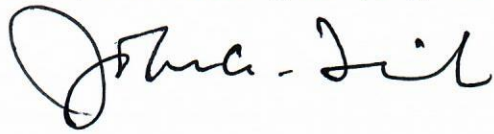
Initiative # 11: This is a root problem. This initiative as written is ill advised and deficient. The title of this initiative should be: **The Temporary Closure and Evaluation of Restoring the Bohemia Salinity Control Structure.** The fact that your plan suggested this as an "evaluation" is really lame in the eyes of an oyster industry stakeholder. It quite simply shows how beholden this draft is to NGOs, and "other user group conflicts". Quite frankly, it is further evidence that this draft does not necessarily reflect the true interest of restoring the oyster industry. Although there are people who falsely claim that this crevasse was a "natural event", the failure of the Bohemia Salinity Control Structure levee was clearly due to the lack of maintenance by authorities. There is serious potential for liability here, and that is one of the reasons both Plaquemines Parish Government and St. Bernard Government have supported its temporary closure until future evaluation can be done. Another reason the local governments support this is due to the devastation of their fisheries resources.

The LOTF is on record as in support for the immediate emergency closure of the structure and has expended \$200,000 on engineering and design for getting the permits for the closure of the crevasse. Oystermen have sought support on this issue innumerable times to your Department, to CPRA authorities, to the Governor, to the La Congressional Delegation, and to local authorities. Frank Newell, the engineer that worked on the structure closure design reminded me recently that the temporary closure (rock dam) would cost (only) \$8 million. This needs to be done ASAP. To delay this is just costing the state more, and is a travesty.

Initiative # 12: I do not support research and development of a GMO fresh water oyster. It promises to be a major flop. We would not be able to sell them because nobody would want to buy a GMO fresh oyster anyway. This is quite simply throwing money at a problem to make it look like you are doing something. And spending \$5 million dollars on this in the name of rehabilitating the oyster resource is absurd.

Instead, research should be directed to 1) Detailed chemical and biological water quality analysis in oyster growing areas, 2) Evaluation of the Apparent Failure of Oyster Larval Survival in the Waters of Public Reefs East of the Mississippi River.

John A. Tesvich, President
Ameripure Processing Company, Inc.

A handwritten signature in black ink, appearing to read "John A. Tesvich". The signature is fluid and cursive, with a large initial "J" and "T".

Good Afternoon,

I appreciate the opportunity to both question and comment on this Draft Plan. I have a few very general comments regarding the need for a database (GIS, ideally) of assessed water bottoms and oyster resources in areas currently existing as oyster leases, as well as areas that could be leased in years to come.

- 1) I feel that LDWF should utilize the private industry biological assessments performed by scientific consultants as requirements for permitting and LDWF approval. There is a lot of valuable data that has been collected over the years by scientific studies and biological assessments that resides entirely on private servers and databases. Understandably there are hurdles to ensuring this data is not only valid, but also collected and analyzed in a manner that LDWF could import and maintain as a database. If, as this draft plan is initiated, a plan to share this scientific data between private industry/regulatory compliance and the LDWF could be formulated, it would be a valuable dataset acquisition in which LDWF is not responsible for funding (scientific study or data collection funding) but rather simply (less effort) setting up and maintaining.
- 2) As LDWF begins to collect more data and determine the productive/unproductive areas (whether leased or public seed grounds), it would seem necessary to develop an actual Standard Operating Procedure for the water bottom assessments and quantitative sample collection/analysis of oyster resources. This would be particularly necessary to ensure all data collected, analyzed and provided to the LDWF is comparative, whether it is collected by LDWF or third-party subcontracted biologists. The QA/QC of data will be important in making determinations of productive/unproductive leases. I suggest a program similar to the certification program run by Florida Department of Environmental Protection in which scientists have to meet certain training qualifications in order to collect, analyze, and provide data for use by the state.
- 3) Does LDWF plan on incorporating any environmental/ecological/hydrological modelling into the determination of productive/unproductive waterbottoms in order to identify changes based on future/planned restoration projects?

I have likely overlooked a few more thoughts as I type this email, but wanted to get the few comments/questions that I had into public comment prior to closing. Again, I appreciate the opportunity to comment,

Sarah K. Roy

Marine Services Manager

Matrix New World Engineering

2798 O'Neal Lane, Building F

Baton Rouge, LA 70816

P: 225.292.3271

D: 225.508.4830

C: 225.304.1563



Dear Secretary Montoucet:

I am totally against the management plan proposed. This will destroy our oyster industry.

Thank you,
Vatroslav Garbin

Dear Ms. Bourque,

I would like to comment on the Draft Oyster Management and Rehabilitation Strategic Plan & Altering the Mississippi River Gulf Outlet Rock Dam, hoping that I did not miss the deadline to do so.

My husband & I have been in the oyster industry as oyster lease holders, cultivating & harvesting our leases for 32 years. There are many Initiatives that I agree with and feel would be good for the industry. So, I will only comment on the Initiatives that I don't agree with & feel would harm the industry and the Oyster fisherman working in the Industry.

Initiative 7 seeks to eliminate oyster leases in areas where environmental factors, including water quality, do not permit the oyster leases to meet certain undefined production criteria. As LDWF should be aware, environmental factors, such as water quality and salinity, continuously change over time. Generational oyster harvesters can attest that areas which were productive during one decade can become unproductive the next decade, and then productive again a decade later. My husband & I can attest that this is certainly true in our 32 yrs harvesting oysters. It would be unfair & unjust after over 3 decades of financial investment purchasing & placing cultch material on our leases, not to mention untold number of years building up our oyster beds for LDWF to possibly cancel our oyster leases and deem them unproductive. Does this not discourage oyster lease holders from investing in their oyster leases? Cultch material is very costly. LDWF has a legislative obligation to promote the oyster industry. Initiative 7 does not promote or rehabilitate the oyster industry.

Initiative 8 - Establishment of Cultivation and Production Requirements on Leases. Initiative 8 seeks to have oyster harvesters maintain production records ("trip tickets") on the production of oysters from each separate oyster lease. This Initiative is not practical in the real world & would cause a back log of paperwork for the fishermen as well as LDWF. A better Idea instead of recording the information of each individual lease is to use the 28 areas by Louisiana Dept. of Health & Hospitals Shellfish Harvest Areas.

Initiative 12 - Research and Development Initiative 12 seeks to spend \$25 million to develop a low-salinity oyster. This Initiative represents the largest financial commitment of the draft Strategic Plan, representing almost 19% of the \$132.3 million dollar proposed budget. Will this low-salinity oyster be genetically modified? Because most consumers avoid any food item that is genetically modified. This could be a lot of money wasted on a product the consumer doesn't want. This doesn't seem like a good idea, tampering with Mother Nature and could back fire.

I'd also like to add that closing Mardi Gras Pass is a priority!!

Thank you very much,

Nikola & Diane Zarak

Dear Ms Bourgue

The strategic plan has many good initiatives as well as some that raise major concerns. As a member of the Louisiana oyster industry I appreciate the states efforts to putting emphasis and efforts towards the rehabilitation of Louisiana's oyster resource, however several initiatives raise major concern.

Initiative 7 creates major concerns, as a third generation leaseholder of leases strategically located throughout the estuary to ensure consistent production within our ever-changing environment.

The concept of having the department cancel leases in areas they determine unfit for oyster production based on a snapshot of time, jeopardizes the confidence and security of a future based on generations of understanding the environment in which we make our living. Canceling leases discourages lease holders from investing towards achieving exactly what the strategic plans is trying to accomplish. Taking away the security of ownership undermines my confidence in the states plan.

The taking of leases to reduce conflict between user groups leaves these water bottoms unprotected and potentially subject to destruction.

Initiative 8 is over burdensome!! I'm a fisherman not a bookkeeper. There has to be other alternatives.

Initiative 11 in regards to restoring the oyster production in the Breton Sound area closing or controlling the flow from Mardi Gras pass is a no brainer, it's the elephant in the room.

With kindest regards
Capt Pete Vujnovich

>> Dear Secretary Montoucet:

>>

>> The original drafting of this plan was developed without any input

>> ,direction from the oyster industry representatives ,and commercial fishermen therefore making this a invalid process. Also the fishing industry should have had there input at meetings but none where held . For these reasons I must oppose this plan as written due to the fact that several of the initiatives do not promote the oyster industry and will most likely have a negative impact in how we move forward.

>>

>>

>> Thanks, Vlaho Mjehovich

Dear Secretary Montoucet,

The Plaquemines Oyster Association opposes this plan as written. It is our opinion that it does not represent the best interest of the industry. We are willing to work with wildlife to develop a plan that we believe will benefit the industry. We do not believe that we were properly represented in the public comment phase of this plan.

Sincerely,

Nathan Jurisich

President

Dear Secretary Montoucet,

I do not believe that this plan will benefit the oyster industry. This plan was drafted without the proper input from the members of the industry. I believe that we can work together to come up with a better plan that will benefit all.

Thanks,

Nathan Jurisich

Dear Ms. Bourge,

My family and I have been in the oyster industry for decades. I started fishing oysters 46 years ago. The very first oyster lease I personally purchased was in Quarantine Bay. I have witnessed the eastbank oysters reefs of Black Bay, Quarantine Bay, and American Bay areas go from feast to famine.

My thoughts on some of the initiatives:

Initiative 7 - Evaluation of Leases Incapable of Oyster Production; Sounds like the Louisiana Coastal Protection and Restoration Authority (LCPRA) is just looking to take the leases back from the fishermen. Oyster leases might lay dormant for years, even decades, but when conditions change, maybe a low river for a few years, the oysters come back. It should be up to the fishermen to terminate his/her lease, not the LCPRA.

Initiative 8 - Establishment of Cultivation and Production Requirements on Leases: Adding additional paperwork to the mix for fishermen really doesn't help the industry

Initiative 9 - Establishment of New Public Oyster Areas: New oyster areas are not the answer. We have some of the best seed grounds in the world. We need to rehabilitate what we already have. New grounds will not survive if Mardi Gras Pass is not blocked.

Initiative 11 - Research and Development: No study is needed. Ask the locals. Close off Mardi Gras Pass, Bayou Lamoque and other holes in the levee to the south. We can then work on the rehab plan for the existing public grounds that are covered with silt from the Mississippi River.

And why wouldn't a member of the Louisiana Oyster Task Force (LOTF) or an oyster fisherman not be involved in creating this plan? All the studies in the world will never replace day to day knowledge of what has happened over the years to the oyster leases.

Sincerely,

Ronnie Kennair

Natural Growth, Inc.

Kennair Oyster, Inc.

Dear Secretary Montocucet

I strongly oppose this plan because no one that's has a stake in the oyster business was not allowed any input and most of the plan really does not improve the oyster industry in any way so to force this plan as is upon the oyster industry just seems un-American

Thanks

Sent from my iPhone

Dear Secretary Montoucet,

I have read the initiatives of the Louisiana Oyster Management and Rehabilitation Strategic Plan. Some of these initiatives lead me to believe that this plan will not be beneficial to oyster resource restoration.

As a member of the LOTF, I know for certain that the Task Force had no involvement whatsoever in the draft that was released. Additionally, having been a cultivator and leaseholder in this industry for 43 years, there are a number of initiatives in this plan that I cannot stand behind.

I respectfully request that you put the plan on hold until a discussion is held and the best interests of the industry and oyster resources are served.

With this in consideration, I strongly suggest in the future that any prospective decisions should include consultation of oyster industry leadership, as any of these decisions directly impact all individuals involved.

Sincerely,

Jakov Jurisic

c. 504-554-3389

oysterjj@bellsouth.net

Dear Secretary Montoucet:

This plan was developed without any input from the oyster industry representatives and it's members therefore making this flawed process. Oyster industry should have been involved from the start.

Some of the initiatives do not promote the oyster industry and will very likely have a negative impact in how we proceed forward.

CPRA and LDWF should be transparent with LOTF and industry.

Thanks

Mario Popich

Dear Secretary Montoucet,

The plan has some good initiatives but also some initiatives that are not in the best interest for the future of the oyster industry. Initiatives 1,2,4,5,6,9 and 10 are potential positives for the development and future of the industry.

Initiative 3 establishes sanctuary reefs not for the harvest of oysters but for brood-stock. Until a miracle oyster is developed this initiative shouldn't be a priority at this time. If it's deemed a sanctuary then let it be applied to all fisheries both commercial and recreational.

Initiative 7 should be excluded from the plan as it is vague and we live in an ever changing environment from year to year or even decade to decade. Who is to determine what's incapable and for what reason, man made or natural.

Initiative 8 is burdensome and would be very costly and ineffective as written. The DHH harvest areas incorporated in the trip ticket would greatly streamline the size of the areas to give a much more defined area of harvest and cultivation efforts.

Initiatives 9 and 10 which are the most important of the plan for the industry have been listed as low priorities by the CPRA and LDWF. Closing Mardi Gras Pass would revitalize the most prolific public oyster seed ground in the world.

Initiative 12 is also vague and has a \$25 million price tag.

This plan was drafted without any input from the oyster industry. It wasn't until months after the plan was drafted that it was brought before the LOTF and the industry for review and shortly thereafter presented to the public through virtual meetings creating an unfair advantage to the oystermen due to the lack of knowledge and the ability to access the internet restricting them from viewing the plan for comment.

I have met with CPRA and the LDWF on several occasions and the changes requested by the oyster industry were never implemented. I feel that this plan is being bullied through by the CPRA and the LDWF and the input from the oyster industry has been ignored. For those reasons mentioned above I must object to the plan as a whole because the way the process was originally drafted and held from the industry for several months.

Thanks,
Mitch Jurisich

Sent from Frank Jurisich

Begin forwarded message:

From: Mitch Jurisich <mitchjurisich@yahoo.com>

Date: December 11, 2020 at 2:56:15 PM CST

To: Frank Jurisich <frankjurisich@yahoo.com>

Subject: Fwd: Louisiana Oyster Management and Rehabilitation Strategic Plan

Sent from my iPhone

Begin forwarded message:

From: Mitch Jurisich <MitchJurisich@yahoo.com>

Date: December 9, 2020 at 1:59:46 PM CST

To: Nathan Jurisich <njurisich3@yahoo.com>

Subject: Fwd: Louisiana Oyster Management and Rehabilitation Strategic Plan

Oyster Management and Rehabilitation Strategic Plan

Dear Secretary Montoucet:

The original drafting of this plan was developed without any input from the oyster industry representatives and it's members therefore making this a flawed process. For that reason I must oppose this plan as written due to the fact that several of the initiatives do not promote the oyster industry and will most likely have a negative impact in how we move forward.

Thanks,

Secretary Montoucet,

The development of strategic plan was produced without any direction from the oyster industry, therefore as a fishermen and leaseholder I oppose the approval of the strategic plan.

Thanks,

Clark and Popich LLC

December 11, 2020

Carolina Bourque, Oyster Program Manager
Louisiana Department of Wildlife and Fisheries
P.O. Box 98000
Baton Rouge, LA 70898
Via email: cbourque@wlf.la.gov

Re: Comments on Louisiana Oyster Management and Rehabilitation Strategic Plan

These comments are submitted on behalf of GO FISH regarding Louisiana Oyster Management and Rehabilitation Strategic Plan. Gulf Organized Fisheries in Solidarity and Hope, Inc. (GO FISH) is a non-profit coalition of Louisiana's leading commercial fishing industry advocacy groups. GO FISH was formed after the 2010 BP Oil Spill in the Gulf of Mexico, when fishermen recognized the need to speak with one voice on issues critical to the survival of Louisiana's unique fishing culture, coast, and communities. The members include thousands of commercial fishermen, from and through the Louisiana Oystermen Association, Louisiana Shrimpers Association, the Louisiana United Crabbers Alliance, Association of Family Fishermen, Southeastern Asian Fisherfolks Association, United Commercial Fishermen, Louisiana Bayoukeeper and partners. The members of these organizations are a diverse group of fishers including Native Americans, African Americans, Asian Americans, Latin Americans, Cajun Americans and European Americans.

There are good initiatives in this plan and some cause concern, however we make specific comments on Initiatives 4, 6, 8, 10 and 12.

Initiative 4 should be prioritized by LDWF and is fully supported by GO FISH. GO FISH started the Fishermen's Education and Resiliency Program (FERP) in 2018 to provide AOC education and field training opportunities to commercial fishermen. Louisiana was an early leader in AOC in the Gulf, but expansion has generally stagnated. Off-bottom farming industries in Alabama and Florida have matured surpassing Louisiana's growth. Mississippi is growing its industry and Texas is on track to lead in the Gulf. We are encouraged to see this initiative included. Smart investments have to be made to address industry entry barriers like seed source and suitable space for farming. The plan seeks to designate public water bottoms for AOC, which acreage would be minimal in comparison with traditional lease acreage. Other needs are education, training and

technical assistance, including permitting and marketing support. Existing commercial fishermen and generational fishing family members should be given priority and first offer for grant and loan programs. These are the people who are deeply connected to the coast and have been generational stewards of our bays and estuaries. LDWF can look to Maryland as one model for structuring grants and low interest loans.

Initiative 6 is needed and supported by GO FISH. We suggest that the department expands monitoring capabilities to gather data at multiple levels in the water column.

Initiative 10 is supported by our coalition. We suggest that building a floodgate can allow the interests of the fishing community and larger population to be balanced. The structure can open to allow circulation in the estuary and it can be closed off in the event of a storm to protect people in St. Bernard and Orleans parishes.

Initiative 11 is on Mardi Gras Pass. GO FISH wants to see it closed. There are many places where freshwater is allowed to enter the estuary. Closing Mardi Gras Pass would benefit oysters and other fisheries and interests.

Go Fish generally supports Initiative 12 on research and development. Attention should be given to genetically modified oysters and how this can be publicly perceived. Consideration and use of science and local knowledge will be integral in managing the oyster resource sustainably now and for future generations.

Thank you for considering these comments.

Sincerely,

Tracy Kuhns

December 11, 2020

Carolina Bourque

LDWF Oyster Program Manager

cbourque@wlf.la.gov

Re: Draft Louisiana Oyster Management and Rehabilitation Strategic Plan

Dear Ms. Bourque,

My name is Percy M. Dardar. I'm a 37 year old concerned oyster fisherman/farmer from Lafourche/Terrebonne Parish. I was raised in the oyster industry since I was a toddler. My father, Percy Dardar Sr. raised my brothers and I to become leaders in the oyster industry when the time was needed. He demanded us to lead by example while displaying a professional work ethic and give a 110% effort every day.

Since childhood I have watched the coast wash away and I've witnessed the destruction and mismanagement of the oyster resources. In the last 10 years the oyster industry has suffered massive declines in wild oyster reef stocks due to continuous overfishing. Once productive areas have been ravaged and stripped of its shells to the bare muddy water bottoms. Hundreds of thousands of tons of shell, cultch and seed are "mined" every year and never returning back to the reefs for restoration plantings. Cultch and shell are essential habitats for living resources and provide a hard substrate to form a reef for wild larvae populations to set onto for growth.

It is my personal opinion that the Louisiana Oyster Industry's wild reefs are being damaged beyond repair with little efforts being made to rebuild or replenish them. Continued neglect of reef restoration can result in the total depletion of its wild reef stocks, shell stocks, resulting in massively declined larvae populations that would naturally rebuild the wild reefs back to productivity.

Fortunately, funds are available to design and implement a Strategic Oyster Restoration Management Plan. I have a few concerns and suggestions for consideration in the Lafourche/Terrebonne areas. My life is dedicated to helping the oyster industry thrive and sustain its traditional way of life to preserve and enhance the resource for later generations to enjoy.

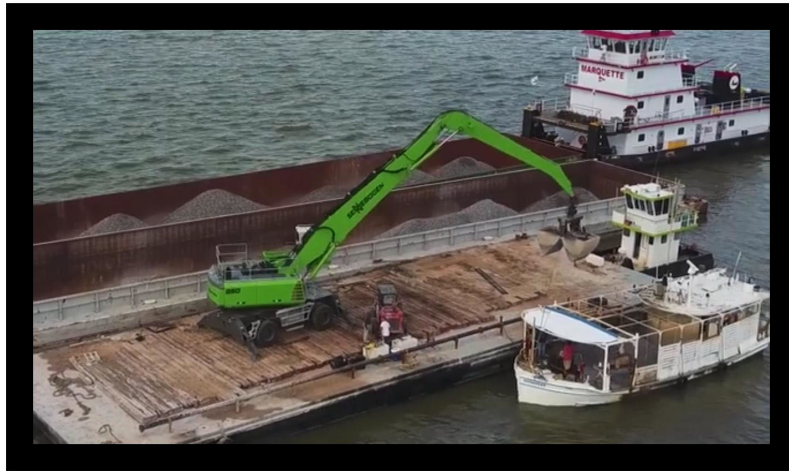
My public comments are meant to help my area (Lafourche/Terrebonne) by making a few suggestions or recommendations to the current draft. Respectfully the current plan has little potential for long term success without addressing the oyster resources greatest threat, which are oyster thieves. My suggestion is to reestablish the Oyster Strike Force to protect closed areas from prematurely harvested by oyster thieves. Additional drones for each area would provide daily surveillance state wide. I also suggest creating a fishery database for all industry participants and mandate all oyster harvesting vessels to have AIS vessel tracking devices on board and require all vessels captains and dock operators to call in before

departure and upon return from harvest. Leaving out this important factor as a key initiative greatly diminishes the chance to have any long-term successful sanctuary sites. Currently this is the main reason why the states seed grounds are depleted. Thieves raid the area before the opening of harvest day.

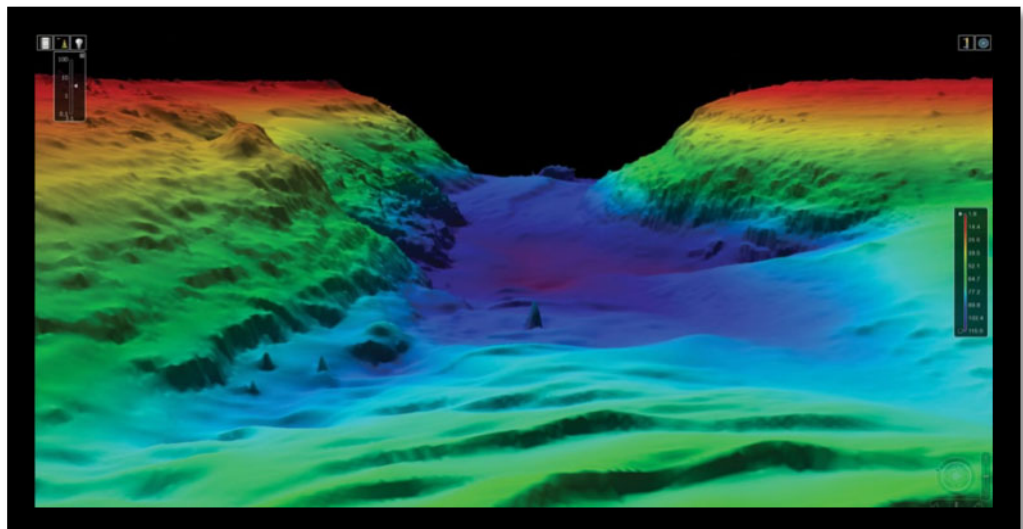
Initiative 1- Traditional Cultch Planting and Water-Bottom Mapping

- 1) Traditional cultch plantings and reef enhancements by transplanting/relaying polluted oysters for harvest
 - a. Form a Louisiana Oyster Reef Restoration Team to execute reef building and relaying task and perform replenishment planting on public grounds after their seasonal harvest.
 - b. Cultch should be placed onto reefs with Louisiana oyster boats to spread cultch material more evenly and to provide jobs for local fisherman in each basin.





- c. By Using lidar technology you can map all Project area water bottoms to document stock assessments and monitor Project progress. You can also identify and designate areas to apply all methods of oyster restoration techniques and utilize which areas can be used as spawning grounds and transplant/relay areas. Additionally, this technology can identify possible hard bottoms for reef building activities. And also investigate soft water bottom areas as potential borrow sites that can be used for dredging and reuse of beneficial material for marsh creation projects.



the USGS Coastal Marine Hazards and Resources Program, an interagency group made up of no less than eight agencies (including NOAA and the U.S. Army Corps of Engineers) with the common goal of facilitating efforts and improving bathymetric LiDAR methods. “We work really hard to coordinate our efforts and ensure collaboration where and when possible,” she explains.

Citizen science can also do its part. Earlier this year, NOAA announced the launch of its crowdsourced bathymetry database. Mariners can contribute bathymetric data via Rose Point Navigation software; it can determine if an area needs re-mapping or be used to ID navigational hazards, allowing NOAA to issue a Notice to Mariners often within 24 hours.

Initiative 2- Cultch Planting of Remotely Set Oysters

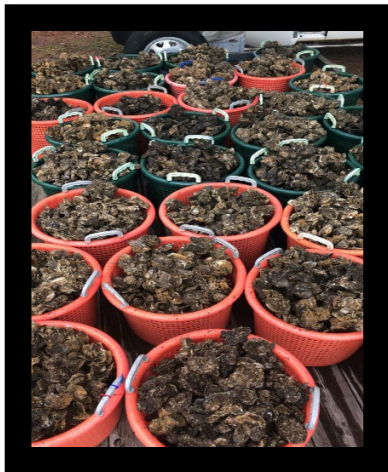
- 1) Build state of the art mobile floating hatchery for spat-on-shell reef development and seed production.
 - a. This unique mobile hatchery will allow Louisiana to produce and transplant up to 20 million spat on shell oysters per year.
 - b. The hatchery will be located on the same waters where oyster reefs are being built with maximin efficiency.
 - c. It will improve oyster restoration efforts by saving travel time staying close to restoration sites
 - d. It can engage and education the community by inviting interested individuals to restore oyster reefs



Initiative 3-Development of Spawning Stock Sanctuary Network

Development of spawning stock sanctuary networks.

- a. By farming these Non-harvestable “brood stock sanctuary “will provide oyster larva to the general area, which will serve to reseed harvestable reefs. Additionally, by developing an oyster gardening program could introduce individuals who are interested in learning about oyster restoration techniques. Participants would be allowed to place spat on shell plantings and reseedling activities.



Initiative 4-Expansion of Alternative Oyster Aquaculture (AOC)

- 1 Develop Alternative Oyster Aquaculture Training Program to provide educational on-the-job training opportunities
 - a. Educate new oyster farmers on hatchery management and oyster restoration techniques
 - b. Offer business trainings for farmers to become eligible and receive grants or financial aid for farm startup cost
 - c. Traditional harvesting and cultivation training with hands on experience and general knowledge on best management practices

d. Offer certifications for working waterfront workforce advancements

Oyster Aquaculture Training Program

April – August 2018

Actively work alongside researchers throughout the 2018 oyster hatchery season.

Learn the principles of oyster aquaculture in this intensive, hands-on program.

Participants will receive an hourly wage.

Where
Virginia Institute of Marine Science
Gloucester Point, VA

How to Apply
Applicants must complete a Virginia state application online. No preselected copies accepted.
Application must be accompanied by a candidate statement indicating interest in aquaculture training.
https://jobs.vims.edu
Select: Hourly Positions
Search for: Oyster Aquaculture Training Program Participant

Application Deadline
February 12, 2018
Finalists will be interviewed in late February.

For more information please contact:
Dipalata Nisha
ABC Business Manager
804-684-7711
dipalata@vims.edu

Program description and further details available at: <http://www.vims.edu/research/hatchery-center/partners/lab/out/index.php>



Take this opportunity to learn the basics of this emerging Virginia industry!


General Information
The Oyster Aquaculture Training Program will take place during normal business hours at a working oyster research facility. Participants will rotate through the stages of oyster aquaculture from the hatchery to field grow out operations. Brief classroom lectures on major topics will provide background information. This program will also include field trips to other research facilities and industry sites. The Oyster Aquaculture Training Program limits the number of participants in order to provide a one-on-one learning environment.

Take this opportunity to learn the basics of this emerging Virginia industry!

General Information
The Oyster Aquaculture Training Program will take place during normal business hours at a working oyster research facility. Participants will rotate through the stages of oyster aquaculture from the hatchery to field grow out operations. Brief classroom lectures on major topics will provide background information. This program will also include field trips to other research facilities and industry sites. The Oyster Aquaculture Training Program limits the number of participants in order to provide a one-on-one learning environment.

Curriculum

<p>Broodstock</p> <ul style="list-style-type: none"> Learn conditioning process Maintain broodstock tanks <p>Algae Culture</p> <ul style="list-style-type: none"> Grow and maintain cultures Calculate feeding requirements Feed adults and larvae <p>Spawning</p> <ul style="list-style-type: none"> Differentiate male from female adults Rate gonad ripeness Learn spawning techniques Participate in oyster spawns <p>Larval Rearing</p> <ul style="list-style-type: none"> Measure water quality Clean larval tanks Count larvae Determine adequate larval densities Monitor larval health 	<p>Setting</p> <ul style="list-style-type: none"> Track larval development Learn setting systems and techniques Understand downwelling process <p>Nursery</p> <ul style="list-style-type: none"> Learn spawning process Care and maintenance of nursery Count and sieve seed Size seed <p>Field Grow Out</p> <ul style="list-style-type: none"> Learn deployment types Prepare and stock bags Determine stocking densities Care and maintenance of grow out <p>Laboratory</p> <ul style="list-style-type: none"> Make standard solutions Learn the process of ploidy analysis Understand disease testing
---	--



Fisheries, Aquaculture & Aquatic Sciences


TRACKS YOU CAN STUDY

<p>AQUACULTURE The study of topics such as hatchery management, aquaculture production, fish health and water sciences.</p> <p>FISHERIES AND AQUATIC RESOURCE MANAGEMENT The use of modern tools to assess, manage and protect aquatic flora and fauna to enhance recreational fishing and aquatic diversity.</p>	<p>MARINE RESOURCES MANAGEMENT The biology, ecology and engineering of healthy ecosystems in which marine life may grow.</p> <p>PRE-PROFESSIONAL The scientific foundation for admission to veterinary, medical, dental and related graduate and professional programs.</p>
---	---

CAREERS YOU CAN PURSUE

<p>MARINE BIOLOGY</p> <p>FISH & SHELLFISH FARMING</p> <p>HATCHERY MANAGEMENT</p> <p>FISHERY MANAGEMENT</p> <p>FISH & SEAFOOD PRODUCTION</p>	<p>POND MANAGEMENT</p> <p>POND DESIGN & DEVELOPMENT</p> <p>MEDICINE & VETERINARY MEDICINE</p> <p>AQUATIC RESOURCES MANAGEMENT</p> <p>WETLANDS CONSERVATION & MANAGEMENT</p>
---	---

CONTACT
Tanya Collins, Clinic, Student Services Coordinator
Phone: 564-944-1616
Email: tcollins@auburn.edu

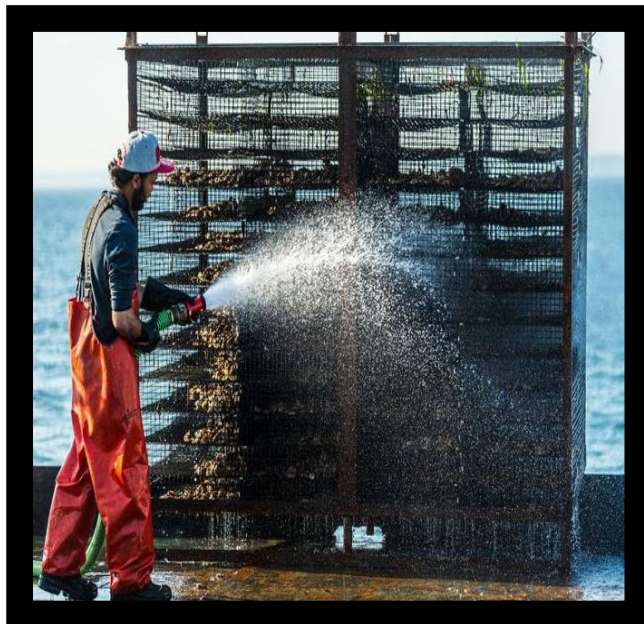


Louisiana needs these types of educational programs for new oyster farmers to be successful. In February of 2020 I applied to attend the Virginia Institute for Marine Science's Oyster Breeding and Technology Program. If excepted I would have had the opportunity for on job training working 40 hours a week from April 1st through October 1st. Unfortunately, I was not excepted leaving me no other options to receive a formal Oyster Aquaculture education. Other states like Mississippi and Florida does not except out of state participants for their training.

I designed and built these industrial size oyster aquacultures grow out gear. This vertical gear allows me to efficiently maximize the entire water column. It also works in similar fashion to

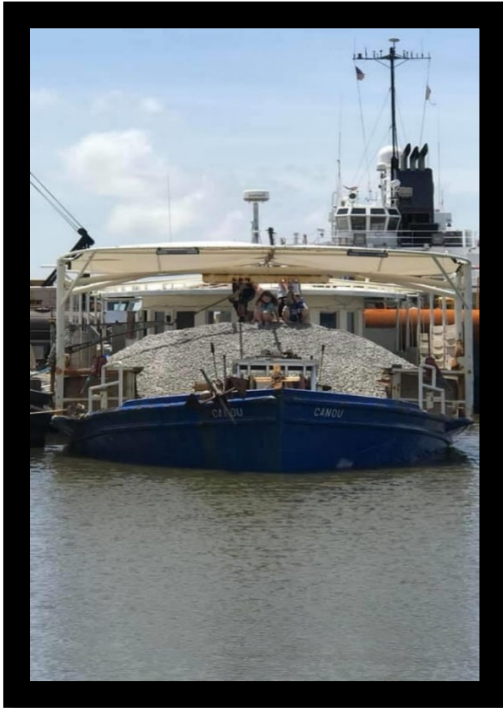
the submerged living shorelines but contains harvestable oysters. The racks can hold ten to thirty-five mini sacks in each lift.





Initiative 5- Private Oyster Lease Rehabilitation (POLR) Program

Reimburse oyster lease holders for a portion of expenses related to rehabilitation activities on leased water bottoms. I also suggest that lease holders who use the funds wisely and reinvest the majority of their funds back into the oyster industry should be allowed to help the state spread their rock which was mentioned in initiative 1.



Planting Rock



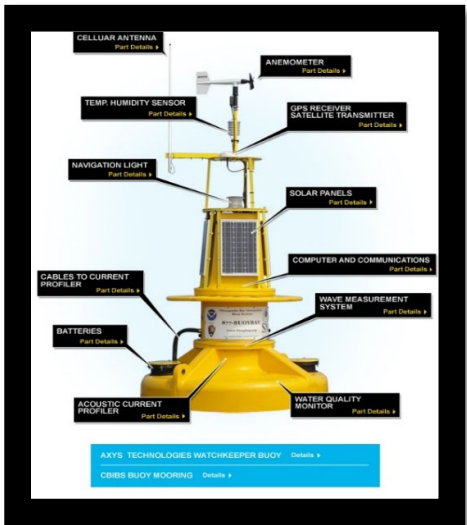
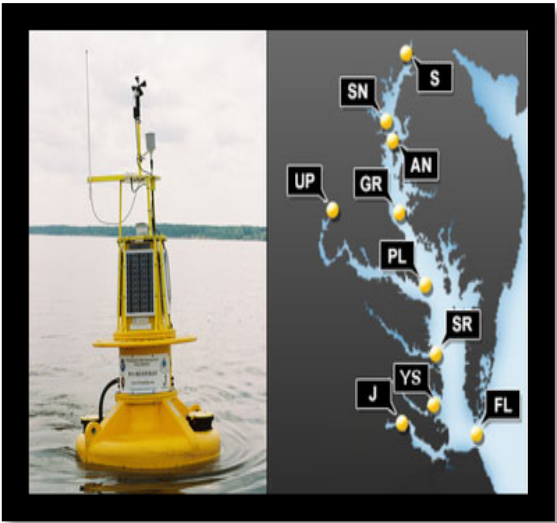
Spat on Shell Planting



Oyster Farm Development

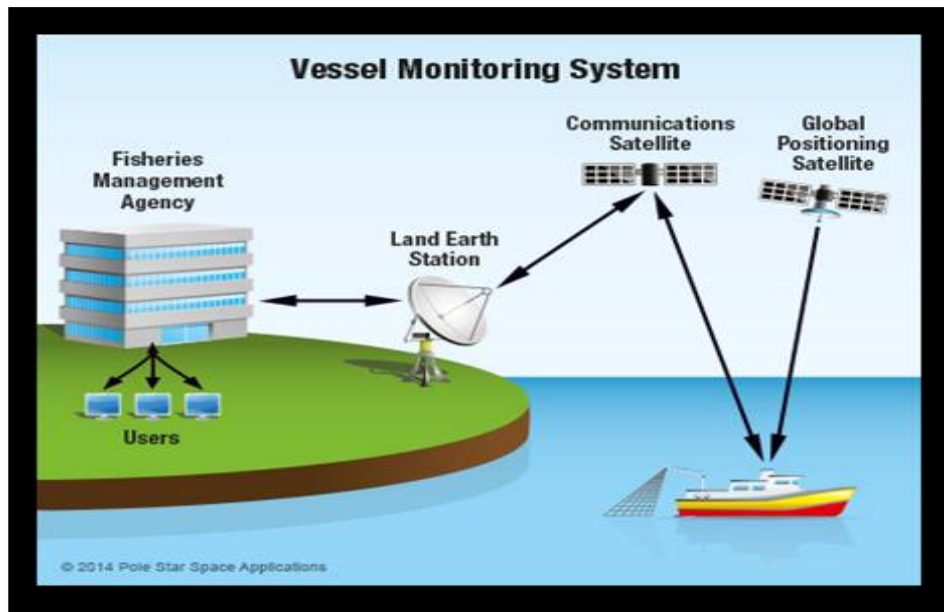
Initiative 6- Expansion of Hydrologic Monitoring

- 1 Expansion of Hydraulic monitoring
 - a. Deploy a network of Smart Buoys by NOAA deliver near-real-time information on weather and water conditions, such as wind, waves and currents
 - b. Collect and transmit many other kinds of data for scientific and educational uses, such as water quality indicators
 - c. Provides users with navigational information and they are able to access via app on mobile device



Initiative 7-Create oyster industry participants database and mandate vessel tracking devices on vessels at all times.

- a. Linking processors, dealers, leaseholders to leases and permitted fisherman will help to organize data collection
- b. Each lease holder/dock manager will call in to give notification for all vessels which will be harvesting activities that day. Fisherman should call in before departure and upon return to the dock and document harvests activities.
- c. Strike force agents will provide drone surveillance and protect closed areas.

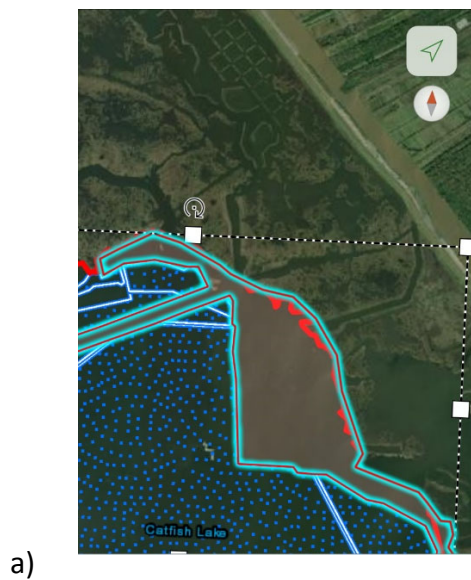


Initiative 9- Establishment of the New Public Oyster Areas

- a. Build new public grounds in Catfish Lake



North/West Side



North/East Side



- b. Build new public grounds in Madison Bay (1,900-acre area in photo above)

These areas have shown to be reproductive if properly managed. I suggest they be considered as new public seed areas.

Initiative 12- Research and Development (R & D)

The health and reproductive capabilities of an oyster reef is dependent on the return of shell or rock to provide a hardened substrate for oyster larvae populations to set onto and grow into new reef. Oyster cultch and shell are essential habitat for living resources. Wild oyster reefs have been a keystone species in the coastal zone for hundreds of years. The depletion of all oyster reefs within a single estuary results in a domino effect to all the marine inhabitants of that estuary. Understanding how the interconnected webs of marine ecosystems thrive and die is the key to maintaining long term economic stability of the resources.

Searching for possible solutions to these many problems occurring in the industry I began researching how past generations overcame similar obstacles. I was Inspired by restoration efforts and collaboration among many coastal communities, whom are All working towards a unified goal to maintain the Chesapeake Bay. Their adaptive management practices serve as a blueprint for improving and developing the coastal zone. Louisiana Coastal Zone Section 214.29 of Louisiana SLCRMA was established as a tool to devise ways to protect the coastal zone and enhance the natural resources by designating Special Management Areas and Projects for an eligible location. Special Management Areas are areas located within the coastal zone which have unique and valuable characteristics requiring special management procedures. They include areas with geological formations such as: beaches, barrier islands, shell deposits historical or archaeological sites, corridors for transportation, and industrialization. Areas subject to flooding, subsidence, salt water intrusion with unique, scarce, fragile, and vulnerable communities with highly productive spawning grounds that are essential habitat for living resources, along with. recreational areas, ports, or other developments which dependent upon access to water. This broad spectrum of reasons empowered by regulations to nominate a special area presents a unique passing window of opportunity in time, to protect and enhance our fishery. The Louisiana coastal zone is very important to those who live within them. We rely on the coastal wetlands and barrier islands as buffers against violent wind, waves, and storm surges. Commercial and recreational fishing, hunting, and wildlife watching along the coast all add significant revenue to the Louisiana economy. The Louisiana coastal zone has vital ecological importance. The coastal resources program states that it is public policy of the state to preserve, protect, develop, and where feasible restore or enhance the resources of the state for future generations. The development of a Special Management Area will provide economic opportunities to manage our natural resources in a sustainable way, with a focus on environmental monitoring and protection. These safeguards will aid in developing spawning areas and nursing grounds while maintaining a food grade environment for optimal oyster

production. The areas are to be managed for a purpose of regional, state, and national importance. The National Coastal Management Program provides \$2.5 million dollars every year to develop and manage the Coastal Zone.

Virginia Oyster Heritage Program Results

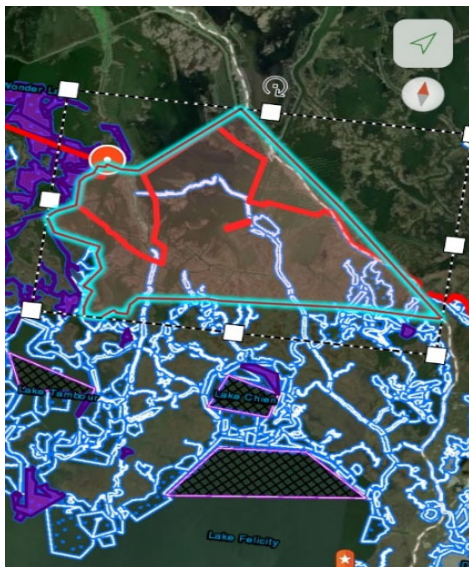
- Restoration of more than 80 brood stock sanctuary reefs and 1000 acres of harvest area in Virginia.
- CZMA funding (\$1.5 million) was focused on restoration efforts in the Rappahannock, where 14 one-acre 3-dimensional oyster sanctuary reefs and 500 acres of adjacent 2-dimensional harvest areas were restored.
- As a result of its coordination and funding of the VOHP, the Virginia CZM Program leveraged its CZMA funding to raise millions more in private and public dollars, resulting in \$2.5 million in federal funds to the Corps of Engineers to implement oyster restoration projects in Virginia following the VOHP model.
- Although improvements in reporting are needed, estimates show up to a 14-fold increase in harvest on the Rappahannock since the rotational harvest system began in 2007, from just over 1,600 bushels that year to over 23,800 bushels in 2010.
- In 1999, Virginia's total oyster harvest was the lowest ever recorded—23,000 bushels, valued at \$575,000. The total 2011 Virginia harvest (wild and aquaculture) was 236,000 bushels—a 10-fold increase with a corresponding dockside value of \$8.6 million.
- Recent testimonies from the field convey the success of the rotational harvest approach, and the positive impact of Virginia CZM's problem-solving role—in this case how to restore a dwindling coastal resource while simultaneously maintaining a sustainable coastal industry dependent on that resource:

"Last year was about the best I've seen it, the rotational system has helped for sure. There's more oysters out there, and bigger ones too." William Parks, waterman for 36 years.

"We're protecting the resource, giving people work and keeping this industry viable, this is how things should be done." Tommy Kellum, owner Kellum Seafood.

"The rotational system is about the best thing we have right now to create a sustainable fishery." Tommy Leggett, scientist and oyster farmer with the Chesapeake Bay Foundation.
(As printed in the Virginian-Pilot in October 2011)

For more details about the accomplishments of the Virginia Oyster Heritage Program:
 Laura McKay
 Virginia CZM Program
 (804) 698-4223
 Laura.McKay@deq.virginia.gov
<http://www.deq.virginia.gov/Programs/CoastalZoneManagement/CZMInitiatives/Oysters.aspx>





My final suggestion is to use the living shoreline initiative to create containment dykes similar to The Queen Bess Island Project which would hold in sediment from dredge material using this method to create or rebuild the wetlands. This is the best way to armor our wetlands, build new marsh lands and maintain a suitable habit for all the marine life in the Louisiana estuaries.

Andrew C. Wilson, Esq.
Milling Benson Woodward, LLP
68031 Capital Trace Row
Mandeville, LA 70471

TO: Carolina Bourque
Oyster Program Manager
Via email cbourque@wlf.la.gov
Louisiana Department of Wildlife and Fisheries
P.O. 98000
Baton Rouge, Louisiana 70898

Date: December 11, 2020

Re: Comment on Louisiana Oyster Management and Rehabilitation Strategic Plan

Dear Ms. Bourque:

My experience as an attorney has led to my involvement in all manner of oyster issues over the past three decades. These include litigation of oyster lease damage claims stemming from marine accidents as well as from the operation of various coastal restoration projects, particularly river diversion structures. In addition, I have litigated water bottom title issues involving oyster leasing and have been involved in permitting including Alternative Oyster Culture ("AOC") permits. Finally, I have been involved in drafting legislation, rule-making, and consultation related to the oyster industry, much of which has involved interaction with and for various state and federal agencies as well as the Legislature. Accordingly, on my own behalf as well as my clients, I appreciate the opportunity to comment.

I have now had an opportunity to review the draft "Strategic Plan ("Plan"). Overall, the Plan appears extraordinary in scope but at the same time, all elements appear necessary if the oyster industry as well as the Louisiana coast are to survive. It is imperative that the survival of both remains the primary goal. I have some initial, general comments on the overall process which are followed by specific, sequential comments on the "Initiatives" presented.

GENERAL CONSIDERATIONS

Long-Term/Short-Term

Some of the Plan efforts will necessarily involve long-term projects which will be implemented at the same time as projects are implemented by the Coastal Protection and

Restoration Authority (“CPRA”). At all times it must be kept in mind that along the way there may be short-term losses from these projects for some stakeholders, including some members of the oyster industry. It should also be kept in mind that short-term **gains** should not be a goal particularly at the expense of critical long-term gains.

An example along these lines of what end-results should be avoided was the *Deepwater Horizon* NRDA Early Restoration Project known as the “Louisiana Oyster Cultch Project” led by the Louisiana Department of Wildlife & Fisheries (“LDWF”). This project involved the placement of cultch material in public oyster seed ground areas of the Biloxi Marsh within St. Bernard Parish as well as other areas beginning in 2012. Within a few years, the Biloxi Marsh effort became particularly successful with a burgeoning population of both seed and commercial size adult oysters. Rather than allow the oyster reefs in this project to continue to expand laterally and vertically, somehow LDWF was convinced to allow the oyster industry to “harvest” the entire area, including commercial size oysters, seed oysters and cultch, leaving nothing behind. This promising resource is now gone. The end result was a short-term benefit for some at the expense of the loss of long-term gains for many.

A similar situation subsequently arose in Sabine Lake where the oyster industry sought to “harvest” the historical, vertical reefs there. This made no sense as there were plenty of oysters elsewhere. Moreover, these are some of the largest unharvested oyster reefs along the Gulf of Mexico making them unique for study and for their ability to absorb wave action for coastal protection purposes. Fortunately, at that time a decision was made to preserve that priceless resource for long-term research and coastal protection benefits. In essence, reason prevailed.

Stakeholder Parity

At recent meetings of the Louisiana Oyster Task Force (“LOTF”) the Leaders of that entity have suggested that they should totally control the commentary and administration of any matters related to oysters and the oyster industry as a whole. This approach fails to address the fact that there are numerous stakeholders who have an interest in state water bottoms besides the oyster industry. There is no statutory authority for a suggestion that LOTF should control all proceedings including this Plan regardless of the obvious stake the oyster industry has in oysters. In addition, there is no indication that the actions and positions taken by the LOTF represent the **entire** oyster industry. Accordingly, oyster leasing should be viewed as a multi-stakeholder issue regardless of the topic of oysters. Further, LOTF should simply proceed in its advisory capacity for legislative functions.

Agency Interaction

There are multiple opportunities for the agencies associated with coastal restoration to interact with positive results. Some opportunities remain.

For instance, CPRA could enter into cooperative agreements whereby coastal restoration projects are implemented which provide breakwater protection for AOC projects. In the

same vein, it is unclear as to whether CPRA has determined whether some of the planned projects will result in favorable location areas for AOC operations. This should be determined.

Another major issue associated with oyster leasing and coastal restoration is whether some type of review process has been formulated in connection with the lifting of the moratorium on new oyster leasing which issued in 2002. Since that time, approximately 660,000 acres of new water bottoms have become available for oyster leasing. It is unclear as to whether title to those water bottoms is held by private interests or the State. Regardless, there has to be some indication as to how the State plans to address that issue through the two interested agencies, CPRA and LDWF.

SPECIFIC CONSIDERATIONS

In addition to these general considerations, the various Initiatives of the Plan are addressed sequentially below.

Initiative 1 – Traditional Cultch Planting and Water-Bottom Mapping

Over the years representatives of LDWF would appear before the LOTF and explain that there would be no production on the Public Oyster Seed Grounds each year because all of the cultch had been taken and there was no way new oysters could grow there. The LOTF repeatedly denied this and passed the lack of production off as a result of oyster mortality for other reasons. This made no sense. Consequently, it would make sense for LDWF to allow the Public Seed Grounds to “lie fallow” as was a primitive land farming strategy in previous centuries. This “no harvest” approach seems to be escaping the planning process. To allow continual harvesting of oysters from the Public Seed Grounds at this time would be another example of short-term benefits for a few and long-term benefits for the many being extinguished.

Initiative 2 – Cultch Planting of Remotely Set Oysters

This represents a major innovation and should be encouraged on all levels since it will result in oyster production on an immediate level.

Initiative 3 – Development of Spawning Stock Sanctuary Network

There have been some anecdotal suggestions that the sole purpose of this particular aspect of the Plan is to allow for recreational fishing to take place over oyster leases. Certainly there is no doubt that oyster leases present excellent habitat for fishing, since oyster reefs provide habitat for multiple marine creatures including several recreational

3

fishing species. This criticism related to recreational fishing has no basis in fact and in reality, allowing for sanctuary reefs would allow for recruitment of oyster larvae from the sanctuary areas to private oyster leases. Consequently, the criticism of this approach makes no sense.

Initiative 4 – Expansion of Alternative Oyster Aquaculture (AOC)

Although this is more or less a “boutique” approach to oyster harvesting, this still could remain a major source of revenue if properly handled. The State should pursue education programs which would allow individual oyster fishermen to come to understand all the different ramifications associated with entering into this business.

The State should also consider establishing coalitions of oyster fishermen who wish to participate in a program to develop AOC. The State should also consider entering into a public private partnership for the production of larvae and/or seed oysters for all kinds of applications within Louisiana. To date, there has not been a coordinated approach along these lines and in addition, it appears that a greater seed source is needed at this time.

Lastly, LDWF needs to establish a more streamlined approach towards the concept of “suitability” for the placement of AOC projects. To date, it appears that the considerations are largely based upon navigation concerns rather than whether a particular location would benefit this type of cultivation. In this regard, CPRA may want to consider establishing breakwaters and other coastal restoration projects which will protect AOC projects from wave energy or storm effects..

Initiative 5 – Private Oyster Lease Rehabilitation (POL R) Program

This was/is one of many through which various and particular oyster fishermen received compensation from governmental entities. This is in addition to several other programs involving compensation these programs need to be closely monitored.

Initiative 6 – Expansion of Hydrologic Monitoring

This approach addresses the issue of monitoring multiple criteria for the State's territorial waters, particularly with regard to oyster issues. This program and others it suggests should be pursued as water quality is a major issue for the oyster industry as well as other related entities.

Initiative 7-Evaluation of Leases Incapable of Oyster Production

There is no question that insurers who bear risks associated with the civil insurance industry spread their risk over many areas of the country and many industries. Some oyster fishermen indicate that for this same reason, it is necessary for them to maintain various leases across the coast some of which show no evidence of production. Yet at the

4

same time, there are numerous claims that members of the oyster industry are making claims against the oil and gas industry as is documented by the 2015 report of the Louisiana Legislative Auditor, as well as the report prepared by Dr. Walter Keithley of LSU for LDNR indicating that the oyster leases are being retained simply to make claims against the oil and gas industry.

All that said, there is no question that it is necessary for a successful, individual oyster fisherman to maintain leases that may be incapable of harvesting or cultivating oysters at a particular time to prevent a total loss of his crop from a single event. Perhaps a "checklist" of topics to establish a valid leasehold and/or property interest. These would include "checkoff" boxes as to the oyster fishermen's, present production and standing crop.

Initiative 8 – Establishment of Cultivation and Production Requirements on Leases

To return to the practice of recording oyster production based upon specific lease numbers would add a major element of "religion" to the claims process and the validity of the lobbying efforts, directly and indirectly, as to real or actual "damages." Meanwhile, lawyers for leaseholders who sue for claims of damages are using formulas to circumvent proof of actual physical damage. Production should be shown by actual sack counts per lease

as in the past. Further, if water bottoms in these leases are barren as to reefs, then there should be compulsory cultch/maintenance requirements.

Initiative 9 – Establishment of New Public Oyster Areas

LDWF is making every effort to establish Public Seed Grounds in multiple areas. These areas should lie fallow until seed oysters are well reestablished and the LOTF and other entities should not hinder the program administered by LDWF in this regard.

Initiative 10 – Mississippi River Gulf Outlet (MRGO) Hydrologic Evaluations

It has always been understood that the goal of nearly all of the oyster leasing proposals and projects was to reestablish the oyster industry as it was near to the 1950s or thereabouts. The proposal to remove the rock dam from MRGO appears oyster production. Production in Lake Borgne which was not part of the historical picture. The interested governmental agencies may want to reconsider any action associated with the subject dam since the proposed benefits are not associated with historical oyster activity. In addition, since it appears there is significant oyster production south of the dam, some consideration should be given to the concept of expanding oyster production south of the present location of the rock dam which should be evaluated in detail.

Initiative 11 – Evaluation of the Restoration Bohemia Spillway Water Control Structure

This particular structure represents an ongoing problem that has been occurring for decades. Some sort of cost/benefit analysis should be performed to determine whether

there is any reason for taking action to repair the structure or to prevent the overflow from the structure at various high water events. Some consideration also should be given to whether the release of water from the Mississippi River through this structure as well as through Mardi Gras Pass equate the flow rates of the planned diversion structure(s) in the area. Perhaps the management of the existing natural crevasses could be substituted for the planned diversion(s).

Initiative 12 – Research and Development (R & D)

Although LDWF comes under repeated criticism for conducting studies, there is no question that these studies are necessary for the agency to proceed on a knowledgeable level. The funding for these studies should be maintained.

CONCLUSION

I thank you for the opportunity to comment and hope that many aspects of my comments can be implemented into real practice. Should you have any questions or require any additional information or documentation in order to process these comments, please contact me at your earliest convenience.

With kind regards, I am,

Very truly yours,

Andrew C Wilson, Esq.

Good Evening,

I am the Vice President of Prestige Oysters, one of the nations large wholesalers of fresh gulf oysters, with many years of investment into not only research but also development of what is best for the ecosystem. Oyster beds are the main source for a healthy, more vibrant bay system (marsh island, estuary for shrimp, crabs and many other sea creatures.)

I strongly oppose moving forward with this recommendation to make changes to your long term plan without the views from the eyes of an oyster man. Over many years, Prestige Oysters has provided subsidiary companies that lease 60K acres of oyster lease bottoms from the state of Louisiana and have bedded more than 120K tons of cultch material with oyster shells, river rock and Kentucky limestone. These companies have spent many years cultivating and harvesting oyster beds that have created the habitat for so many estuaries. These beds are helping to restore Louisiana's natural estuary system. An attempt to try and recreate the natural bay estuary system is playing with Mother Nature and what might have taken well over hundreds of years to create, man can destroy in just one day. I strongly oppose moving forward with this project without having key leaders from the LOTF and individuals who have spent their lives rebuilding Louisiana coastline. Please reconsider and build a team that can work together for a better, more healthy and vibrant environment. The last thing the industry needs is to completely destroy what little of a natural living filter Louisiana has and one that has taken a beating over years of hurricane and oils spills along with millions of gallons of freshwater from Bonnie Carry Spillway. Prestige Oysters along with other oyster dealers and commercial oyster men within the state and out of the state strongly agree with the opposing arguments listed below. please table this proposal until a chief joint plan can be conducted with not only LDWF,CPRA LOTF, but also create a task force made to work together, not against each other. The end result could be total destruction to what took Mother Nature and private leaseholders so many decades to develop.

- Why did CPRA and LDWF exclude LOTF from the process?
- CPRA and LDWF should be transparent with LOTF and industry.
- The drafting process is not transparent.
- CPRA is bullying LDWF.
- The Strategic Plan does not promote the industry.
- LDWF has a duty to promote and grow the oyster industry.
- Oyster industry should have been involved from the start.
- The Strategic Plan was drafted in 2019 with no input from industry.
- The Strategic Plan is flawed.
- The Strategic Plan hurts the oyster industry.
- Cancellation of leases does not improve the industry.
- Lease by lease records make oysters harvesting more difficult and expensive to operate.

Sincerely Lisa Halili

GEORGE PIVACH, II
MARK A. PIVACH
DAVID M. HUFFT
TIMOTHY THRIFFILEY
COREY E. DUNBAR*
ELLEN PIVACH DUNBAR
JOHN E. PIVACH
MATTHEW W. PIVACH
EDEN BUBRIG TESVICH

Pivach Pivach Hufft Thriffley & Dunbar

— attorneys at law —

BELLE CHASSE OFFICE:
8311 HIGHWAY 23, SUITE 104
BELLE CHASSE, LA 70037
(504) 394-1870

COVINGTON OFFICE:
71683 RIVERSIDE DRIVE, SUITE 100
COVINGTON, LA 70433
(985) 206-8900

FAX (504) 393-2553

CDunbar@PivachLaw.com
Reply to Belle Chasse Office

*Admitted in Louisiana and Texas

www.pivachlaw.com

December 11, 2020

VIA EMAIL ONLY: cbourque@wlf.la.gov

Louisiana Department of Wildlife and Fisheries
Secretary Jack Montoucet
Attn: Carolina Bourque
LDWF Oyster Program Manager
PO Box 98000
Baton Rouge, LA 70898

RE: Louisiana Oyster Management and Rehabilitation Strategic Plan
Public Comment

Dear Secretary Montoucet:

Our office has the pleasure of representing numerous stakeholders within the oyster industry. We previously submitted correspondence on December 4, 2020 containing our public comments regarding the Louisiana Oyster Management and Rehabilitation Strategic Plan ("Strategic Plan"). This correspondence should be considered a supplement to our prior public comments.

The entire purpose of the Strategic Plan is to rehabilitate a struggling oyster industry. The oyster industry, through the Louisiana Oyster Task Force, should have been an integral participant when the Strategic Plan drafting process began. However, a behind the scenes peek at the drafting process indicates that LDWF and CPRA intentionally withheld the draft Strategic Plan from the Louisiana Oyster Task Force and the oyster industry.

Our office made public records requests to Louisiana Department of Wildlife and Fisheries ("LDWF") and the Coastal Protection and Restoration Authority ("CPRA") seeking drafts and communications regarding the Strategic Plan. In response, LDWF indicated that public record responses would not be provided until December 30, 2020, i.e. the last day for LDWF to submit the Strategic Plan to the Louisiana Legislature.

As a result of the initial responses by LDWF and CPRA, our office filed a lawsuit in the 19th Judicial District Court for the Parish of East Baton Rouge, Docket No. 701-915 "F-22" seeking a court order to produce the public records. On December 2, 2020, CPRA produced 62 emails containing four versions (Versions 8, 10, 12, and 12.1) of the Strategic Plan. Additionally, due to our litigation, LDWF agreed to extend the public comment deadline from December 4, 2020 to December 11, 2020. Thereafter, on December 7, 2020, LDWF produced 886 emails from 2020

with 23 separate versions of the written Strategic Plan (Versions 3, 4, 5, 6, 7, 8, 8.1, 9, 10, 10.1, 11, 12.0, 12.1, 13.0, 13.1, 13.2, 13.3, 14.0, 14.1, 14.2, 14.3, 14.4, and 14.5). Finally, on December 10, 2020, LDWF produced 950 emails from 2020 and 38 emails from 2019 regarding the Strategic Plan.

The emails produced by CPRA and LDWF paint a picture in which the oyster industry, and the Louisiana Oyster Task Force were intentionally excluded from the Strategic Plan drafting process. The first draft of the Strategic Plan was drafted as early as November 1, 2019. Seven months later, Senate Concurrent Resolution No. 56 (Reg. Sess. 2020) was introduced to have LDWF and CPRA work together with the Louisiana Oyster Task Force and the oyster industry to develop the Strategic Plan. Despite the legislative mandate, LDWF and CPRA created 25 different draft versions of the Strategic Plan before presenting a written draft to the Louisiana Oyster Task Force, along with the public on November 16, 2020, over one year after the initial draft was created. The emails produced show not only that the Strategic Plan was drafted without oyster industry input, but rather that LDWF intentionally withheld the written Strategic Plan from the Louisiana Oyster Task Force. Why, other than to limit industry input?

In fact, a year ago today, on December 11, 2019, a representative of LDWF, while circulating Version 7 of the draft written Strategic Plan emailed colleagues stating:

“See attached for the latest version of the oyster strategic plan, but **please keep this plan in-house. There will be a time when we gather input from the industry, but that is down the line** after we discuss this plan further in-house and with other appropriate state agencies.”

A year ago LDWF made the conscious effort to develop the Strategic Plan without input from the oyster industry. In the past, our firm has had to remind the Secretary of Wildlife and Fisheries of his legislative mandate to protect the rights of the oyster industry. See *Jurisich v. Jenkins*, 749 So.2d 597 (1999). The statements by LDWF representatives behind closed doors indicate that input from the oyster industry was not sought or considered through numerous revisions and drafts.

As revealed in the objections to the Strategic Plan from the Louisiana Oyster Task Force, several of the Strategic Plan initiatives do not promote, protect, or grow the oyster industry. Instead these initiatives were developed to promote the interests of others, which LDWF has no duty or obligation to promote. Has LDWF sought to promote the interests of CPRA in exchange for funding? While CPRA dangles the carrot of a larger budget, LDWF is held hostage in a conflict of interest between its duty to promote and protect the oyster industry and the bureaucratic desire for a larger budget.

This summer, representatives of LDWF made limited slideshow-only public presentations regarding the Strategic Plan, including presentations to the Louisiana Oyster Task Force (July 7, 2020), the CPRA Board (July 15, 2020), and the Governor’s Advisory Commission on Coastal Protection, Restoration and Conservation (August 12, 2020). Despite having Version 12.1 of the Strategic Plan drafted and available to share with the Louisiana Oyster Task Force and oyster industry, LDWF again decided to purposefully withhold the written Strategic Plan from the

Louisiana Oyster Task Force and the oyster industry. Were you, Mr. Secretary, part of that decision?

In preparation for the July 7, 2020 slideshow-only presentation to the Louisiana Oyster Task Force, a representative of LDWF emailed representatives of CPRA and the Governor's Advisory Commission stating:

"I feel it is best to provide them [Louisiana Oyster Task Force] with the handout rather than the full plan document as the full plan document is so detail-oriented. Once we obtain their input on the general plan handout, we can incorporate into the full plan document and then provide it back to the industry."

Again, LDWF made the continued deliberate decision to exclude the Louisiana Oyster Task Force and the oyster industry from reviewing and commenting on the full written draft of the Strategic Plan in July 2020. Instead, LDWF withheld the Strategic Plan for four additional months. Was that decision motivated to prevent industry objections and comments? This alienation of the Louisiana Oyster Task Force and oyster industry from the start of the drafting process prevented stakeholders from providing valuable industry knowledge into the crafting of the initiatives and language of the Strategic Plan for the betterment of the oyster industry.

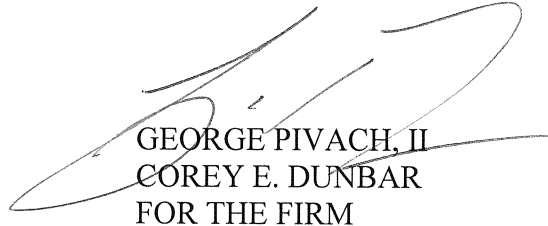
The Louisiana Oyster Task Force, along with the rest of the oyster industry and the public, were not permitted to view the draft written Strategic Plan until Version 14.5 was released to the public on November 16, 2020. After spending a year drafting the Strategic Plan "in-house," LDWF and CPRA released the plan and expected the Louisiana Oyster Task Force, the oyster industry, and the public to review the 17-page document and provide meaningful input with only an 18-day public comment period (later extended to 25 days). Despite a public comment period, LDWF and CPRA had already finalized the Strategic Plan and used the public comment period as simply window dressing.

If LDWF and CPRA were interested in maintaining and promoting a multi-million dollar Louisiana oyster industry, the written drafts of the Strategic Plan would have been presented in a manner that encouraged informative discussion, objection, review, and input. Because this Strategic Plan was developed behind closed doors with the deliberate intention of excluding the input of the oyster industry, the Strategic Plan is flawed and a waste of precious government resources. LDWF has poisoned the process and created an unnecessary mistrust between the oyster industry and the LDWF obligated to promote and protect one of Louisiana's most important seafood industries.

As indicated in our prior comments, we believe the trust of LDWF and CPRA by oyster industry stakeholders will forever be strained if the written Strategic Plan is finalized and implemented through the "behind closed doors" current process. Our office demands that LDWF and CPRA "go back to the drawing board" and restart the Strategic Plan drafting process with an open line of communication and transparency.

If you have any questions or concerns, feel free to contact us.

Very Truly Yours,



GEORGE PIVACH, II
COREY E. DUNBAR
FOR THE FIRM

CED/

cc: Senator Sharon Hewitt, District 1, Louisiana Senate (via email only HewittS@legis.la.gov)
Bren Haase, Executive Director CPRA (via email only Bren.Haase@la.gov)
Chip Cline, Chairman CPRA (via email only Chip.Kline@la.gov)
Jennifer Moon, Executive Legal Division CPRA (via email only Jennifer.Moon2@la.gov)
Jack Montoucet, Secretary LDWF (via email only JMontoucet@wlf.la.gov)
Patrick D. Banks, Assistant Secretary LDWF (via email only PBanks@wlf.la.gov)
Cole C. Garrett, General Counsel LDWF (via email only CGarrett@wlf.la.gov)

Louisiana Oyster Task Force Voting Members:

Tracy Collins (via email only tcollinstwd@yahoo.com)
Mitch Jurisich (via email only mitchjurisich@yahoo.com)
Al Sunseri (via email only asunseri@bellsouth.net)
Sam Slavich (via email only samslavich@hotmail.com)
Jakov Jurisic (via email only oysterjj@bellsouth.net)
John Tesvich (via email only jtesvich@ameripure.com)
Willie Daisy (via email only williedaisy@yahoo.com)
Shane Bagala (via email only Lynettebagala@gmail.com)
Brad Robin (via email only bradrobin64@gmail.com)
Brandt Lafrance (via email only brandtlafrance@yahoo.com)
Peter Vujnovich, Jr. (via email only pvujnovich@aol.com)
Dan Coulon (via email only djcoulonoysters@gmail.com)
Byron Encalade (via email only byronencalade@yahoo.com)

Louisiana Oyster Task Force Non-Voting Members:

Harry Vorhoff (via email only Harry.Vorhoff@la.gov)
Carolina Bourque (via email only cbourque@wlf.la.gov)
Major Edward Skena (via email only eskena@wlf.la.gov)
Karl Morgan (via email only Karl.Morgan@la.gov)
Justin Gremillion (via email only Justin.Gremillion@la.gov)
Brian Lezina (via email only Brian.Lezina@la.gov)

Public Comment

Dr Steve V Pollock PhD

Triple N Oysters LLC

The Louisiana Department of Wildlife and Fisheries and the CPRA has prepared an oyster strategic plan. The plan totals over a hundred million dollars of costs. Money that is not currently available, and may never be available.

I will only comment on AOC and Research and Development. I lack the knowledge to comment on the other initiatives.

AOC: overall the AOC initiative is very good. I do however object to the purchasing of new tetraploid lines.

Quote for the AOC initiative:

“Hatchery triploid production- Current production issues at the oyster hatchery appear to be related to the condition and quality of the tetraploid broodstock. To increase triploid brood stock capacity, additional funding could be allocated to purchase new tetraploid brood stock from a different genetic line.”

Hatchery production of diploid and triploid larvae is far lower than should be occurring at the Voisin hatchery in Grand Isle, LA. This is not attributable to the experienced staff. The fact that diploid production has been fraught with massive problems the last five years suggests that oyster ploidy (diploid/triploid/tetraploid) is not an issue, but rather water quality is to blame. Even when triploid oyster seed is available to AOC they almost always experience mortality rates in floating cages that far exceed that of diploid oysters. Several AOC farms in Louisiana have experienced mortality rates of 80% in cage raised triploids, when diploids mortality rates were less than 20%. Before money is allocated to “purchase” new tetraploid lines, the required research and development must occur to generate new tetraploid strains and assess that they perform and survive substantially better than their diploid counterparts. This should require 3-4 years of testing in the challenging/changing Louisiana coastal environment. Only after adequate testing has occurred should the triploids from the new lines be made available to AOC. Furthermore, diploid oysters that are grown using AOC methods act as “sanctuary reefs” in state waters. Diploid oysters spawn and produce larvae in the protected enclosures of AOC cages. These larvae can be recruited into Louisiana waters and aid in coastal restoration efforts.

Research and Development: a major objective of this initiative is to produce an oyster that is “capable of survival, growth, and reproduction in low-salinity environments”. Several populations of low-salinity adapted oysters have been identified in the state of Louisiana. Traditional breeding and cross-breeding of these strains followed by repeated selection of individual oysters that are even more resistant to low salinities could produce an oyster population that survives low salinities, but these oysters likely would not be able to grow or reproduce at low salinities. Such an oyster population would better withstand occasional freshwater flooding.

Traditional breeding procedures could be utilized at a fraction of this cost. Additional research looking specifically at water quality, both chemical composition and biological composition across the state should be monitored. Correlations made with recruitment success in both the natural environment and in hatchery operations would benefit the oyster industry by understanding observed patterns of recruitment, growth, and survival. Water quality monitoring beyond a handful of traditional measurements must be performed to better understand the complex changes that are occurring along the Louisiana Coast and all coastal regions of the Gulf of Mexico and beyond.

--

Dr Steve V Pollock PhD

Triple N Oyster Farm LLC

pollock@triplenoysters.com

www.triplenoysters.com

225-588-6254

To Whom It May Concern:

As an oyster fisherman, lease holder, and dealer I cannot fully support the Louisiana Oyster Management and Rehabilitation Strategic Plan as written. I have major issues and concerns with initiatives 7, 8, and 12. Initiatives 7 and 8 will have no benefit to oyster lease holders or the oyster industry as a whole. These two initiatives will create more bureaucracy and unnecessary reporting requirements for an already heavily regulated industry. Oyster leases are carrying oyster production in the state and more regulations will not aid us. Initiative 12 is entirely over funded, those monies could be used more productively in traditional cultch planting or the POLR program.

Very Truly I Remain,

Matthew N. Slavich
