

Opportunity Knocks

Part I: The Legal Possibility of Financial Overlay

A Legal Analysis of the Joint Use of Mitigation and Carbon Credits

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I. INTRODUCTION

This paper is the first of a three part series addressing the *joint* use of Louisiana’s coastal mitigation credits and carbon dioxide (CO₂) sequestration credits to assist Louisiana’s coastal restoration efforts through private industry financing. *Part I: The Possibility of Financial Overlay* assesses the legal opportunities of utilizing these two financing resources through a single project. Historically, these programs have been mutually exclusive, but as examined here, this may not be the case if proper coordination and policy driven efforts are achieved.

A point of clarification is needed prior to reading this paper. This is not a political paper. Local, state and federal officials have done an excellent job so far in keeping Louisiana’s coastal protection and restoration efforts bipartisan. Everyone recognizes the irreparable loss of Louisiana’s coast is not a political issue, it is a conservation issue. The same should be said regarding climate change. Climate change should have never been a political issue. It, too, is a conservation issue. Despite political efforts to promote global warming awareness, it could be argued, these efforts offered a scapegoat that has paralyzed the nation’s ability to address this issue. We need the oil and gas industry to remain strong in Louisiana. This industry has been a vital source for our economy for many decades. Similar to mitigation and carbon credits, conservation financing¹ and energy do not have to be mutually exclusive. We can seize both opportunities.

This paper is strictly focused on the financing *opportunities* that could benefit Louisiana’s coast. As mentioned, *Part I* focuses on the legal availability of combining the two financial sources. It is a starting point. There has been limited capital invested in this initial stage; therefore, there is only a cursory review of such practical application drawn from the author’s experience, knowledge and consultation with subject-matter experts regarding the current state of Louisiana’s restoration efforts. Please note, the purpose of this initial stage is to encourage further attention to the real potential of using these programs together. There are many unanswered questions triggered by this initial review, many of which the author seeks answers. *Part II* will focus on the pragmatics of implementing such a plan (i.e. key player consultation, cost/benefit analyses, risk assessments, etc.). *Part III* will involve “a way forward” with specific proposals, project recommendations and policy needs to carry out a successful program.

¹ “Conservation finance” has been defined as the practice of raising and managing capital for the conservation of land and water. Story Clark, *A Field Guide to Conservation Finance* xvii (2007).

II. A LANDOWNER'S OPPORTUNITY

There are a variety of so called “conservation finance” tools. This paper only focuses on two of those programs: 1) Louisiana’s Mitigation Program (LMP), and 2) the “Carbon Market,” using carbon sequestration credits² created through marsh creation on Louisiana’s coast. Though limited to these two programs, it is the overall goal of this research to generate private industry finance through whatever tools available. If other capital generating programs are observed and would be compatible with this initiative, by all means, please provide feedback. As with any public/private sector initiatives, coordination is key.

As an initial point of reference, we will examine the (hypothetical) opportunity Larry the Landowner may have to benefit from both programs. Larry has full ownership in a 250 acre tract of land in Barataria basin within Lafourche parish near Port Fourchon. Larry inherited this land from his parents with full mineral interest. Larry, like many residents in south Louisiana, remembers when he was a young boy helping his dad trap animals on their land, crawfish, hunt the occasional deer and various other outdoor activities. Unfortunately, Larry has seen his family land subside over the years due to various environmental forces. Larry’s land is now part of a contiguous tract of saline marsh that is covered by water during high tide, but remains a non-navigable³ stretch of land shown below in yellow:⁴

² “Carbon sequestration credits” refers to the tradable instrument generated from capture and secure storage of CO₂ through various types of projects that reduce the CO₂ that would otherwise have been emitted to or remained in the atmosphere. *A Landowner’s Guide to Carbon Sequestration Credits* 5 (Central Minnesota Regional Sustainable Development Partnership, 2010)

³ Larry’s land is characterized as seashore now that the gulf has started to cover the land during high tide. *See* LA. CIV. CODE 451. Generally speaking, this seashore is defined as a public thing subject to state or political subdivision ownership. *See* LA. CIV. CODE 450. However, because Larry’s tract remains a non-navigable tract of land inundated with water only during high tide, Larry has retained ownership. *See* LA. REV. STAT. 9:1115.1 (distinguishing and upholding Louisiana protection of private ownership after U.S. Supreme Court’s ruling in *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469 (1988))

⁴ This parcel was randomly chosen because it is described as privately owned property according to LNDR’s GIS database in Strategic Online Natural Resources Information System (SONRIS).



Larry wants to preserve this land for his children, but he cannot afford it himself. He has spoken to many experts in the field of conservation and has learned about the LMP. Larry engages a local conservation investment team to see if they would like to use his land to participate in the LMP. After realizing the land is located in a saline marsh the investment firm tells Larry the risk of non-compliance with LMP’s requirements is too high to justify the potential return on investment (ROI). Larry looks for other sources of revenue available and learns about this concept of carbon sequestration. Re-engaging the investment firm, Larry is quickly shot down because of the generally accepted belief that carbon credits cannot be used in conjunction with other financing tools such as the LMP.

Part I will examine whether this belief is true considering the unique circumstances surrounding LMP’s participation to date. Prior to examining their joint use, however, a brief background is in order. Here, we will briefly examine the history of both programs, as well as potential opportunities, both current and potential, for the joint use of these programs.

III. BACKGROUND OF THE TWO MARKETS

A. Louisiana’s Mitigation Plan (LMP)

1. History

In 1978, Louisiana’s legislature followed the federal government’s enticement,⁵ implementing a coastal zone management plan known as the State and Local Coastal Resource Management Act (SLCRMA),⁶ Louisiana’s first large scale effort to create a “no net loss” wetlands policy. SLCRMA’s purpose was not to stop industry’s use of the coast. Rather, the intent was to “encourage multiple uses of resources and ensure adequate economic growth, while

⁵ Coastal Zone Management Act of 1972, 16 U.S.C. §1451, et seq.

⁶ LA. REV. STAT. 49:214.21, et seq.

minimizing adverse effects from one resource use upon another without imposing undue restrictions on any user.”⁷

To accomplish this, SLCRMA set in motion the LMP, the state’s key regulatory tool to ensure its “no net loss” wetland policy. Louisiana’s Office of Coastal Management (OCM)⁸ was tasked with overseeing the LMP and continues to oversee it today. In abstract, the LMP is simple. Prior to any project that could have a negative impact on Louisiana’s coastal wetlands,⁹ OCM’s Mitigation Section works with the permittee to make reasonable efforts to avoid the negative impacts, whether it be through relocation of the site, engineering adjustments, improved operational practices, etc. Sometimes, however, projects cannot avoid their negative impact on the wetlands.

In this case, the permittee must select from three options to “compensate” for the wetland loss. First, the permittee can elect to create his own mitigation project (e.g. small vegetation plantings on a landowner’s property). This option is the most used and typically the most affordable, but as stated in OCM’s 2010 evaluation of the LMP, these small isolated projects are the least effective option in supporting the state’s Master Plan objectives.¹⁰

The latter two methods are both monetary payments the permittee can make by: (1) contributing to the Louisiana Wetlands Conservation and Restoration Fund (In-Lieu Fee option), or (2) purchasing mitigation bank credits from land banks that have been approved by LDNR for distribution. Both options have proven successful in sustaining Louisiana’s “no net loss” policy. OCM has declared the In-Lieu Fee option the best opportunity to support the state’s Master Plan objectives because of its ability to consolidate fees towards more robust, individual projects.

However, as noted by OCM in its evaluation, the mitigation bank credit option is still a viable option, it simply is not drawing attention to areas that need mitigation the most (i.e. saline marsh wetlands). As of 2010, only one of the nine mitigation land banks was located in brackish/salt marshlands. The project was non-compliant with state requirements, resulting in zero available brackish/salt mitigation bank credits. One of the requirements for permittees purchasing mitigation bank credits is to purchase credits from the same habitat type and basin as the proposed impact, “unless no feasible and sustainable alternatives for compensatory mitigation exist in that basin.”¹¹ Without an adequate supply of brackish/salt marshland mitigation banks, OCM concludes the mitigation bank credit option is flawed. The cost/benefit has been too risky for landowners and investors. It is this disconnect which this paper seeks to address by discussing additional benefits that would force landowners and investors to reassess their cost/benefit analysis.

⁷ *Evaluation of Louisiana’s Mitigation Program for Impacts to Coastal Habitats*, 4 (Louisiana Department of Natural Resources: Office of Coastal Management 2010)

⁸ OCM is a subordinate office of the Louisiana Department of Natural Resources (LDNR).

⁹ Louisiana uses a quantification method to determine the “net gains and unavoidable losses” of coastal wetlands using cumulative habitat units (CHUs) or average annual habitat units (AAHUs), whichever is most appropriate. These units are determined by various models authorized by the LDNR Secretary pursuant to LA. ADMIN. CODE tit. 43, pt. I, §724(C)(4).

¹⁰ *Evaluation of Louisiana’s Mitigation Program for Impacts to Coastal Habitats*, *supra*, at 11.

¹¹ LA. ADMIN. CODE tit. 43, pt. I, §724(J)(4)(c)

2. LMP's Mitigation Bank Process

A mitigation bank typically starts with a bank sponsor (Applicant), usually a landowner, contacting the OCM with interest in establishing a mitigation bank.¹² The Applicant will prepare a draft prospectus using the USACE Prospectus Checklist,¹³ which may be prepared by a third-party. The prospective bank is presented to the Interagency Review Team (IRT), made up of representatives from the USACE, OCM, Environmental Protection Agency (EPA), United States Fish and Wildlife Services (USFWS), National Marine Fisheries Services (NMFS) and Louisiana Department of Wildlife and Fisheries (LDWF). The IRT may choose to meet with the Applicant, ask questions, visit the site or various other screening measures. The IRT's review includes, but is not limited to, the following: (1) the time period the mitigation bank sponsor can operate and maintain the mitigation bank (i.e. 20 years for marsh mitigation banks or 50 years for forested wetland mitigation banks); (2) the bank's potential to create, restore, protect, enhance, and/or preserve coastal resources; (3) the bank's potential effect on coastal resource values, such as fish and wildlife, floodwater storage, water quality improvements, storm surge protection, etc.; (4) the bank's potential effect on lands adjacent to or in the vicinity of the bank; and (5) the bank's consistency with Louisiana's Comprehensive Master Plan.¹⁴

After review, the IRT will submit their comments and recommendations to the Applicant, at which point the Applicant can prepare the final prospectus to be submitted with a permit application to OCM. The OCM will review the application and issue a public notice. Simultaneously, the Applicant is encouraged to prepare a mitigation banking instrument (MBI) that details the physical and legal characteristics of the bank and how the bank will be established and operated. The MBI is submitted to the IRT for review. When the IRT is satisfied the MBI is sufficient, all conservation easements have been established, financial assurances have been properly documented, the MBI may be circulated for signature by the sponsor and the IRT agencies that wish to participate in the use of the bank. This process usually takes nine (9) to twelve (12) months to complete.¹⁵ Once approved, bank sponsors can release (sale) credits in accordance with the Mitigation Bank Credit Release Schedule (MBCRS) determined by the USACE with input from the IRT. An example of a MBCRS is:

- 5% Administration Release (Signed MBI, Escrow, Permitted, Easement)
- 20% Site Preparation/Construction and Planting (Initial Establishment)
- 20% Initial Success Criteria (Year 1 Success Criteria Met)
- 20% Interim Success Criteria (Year 5 Success Criteria Met)
- 5% Long Term Success Criteria (Year 15, or Other Criteria Met)¹⁶

¹²*Evaluation of Louisiana's Mitigation Program for Impacts to Coastal Habitats, supra*, at 41.

¹³ *Prospectus Checklist for Mitigation Banks per CFR 332.8(d)(2)*, USACE, available at http://www.mvn.usace.army.mil/Portals/56/docs/regulatory/Checklist_Prospectus.pdf

¹⁴ See LA. ADMIN. CODE tit. 43, pt. I, §724(F); see also *Evaluation of Louisiana's Mitigation Program for Impacts to Coastal Habitats, supra*, at 26-27.

¹⁵ *Id.*

¹⁶ *Evaluation of Louisiana's Mitigation Program for Impacts to Coastal Habitats, supra*, at 31.

Any federal or state agency, political subdivision, corporate body or private persons may apply for a mitigation bank. Unlike the carbon credit process, *infra*, there are no policy limitations that would prohibit an Applicant from receiving a mitigation bank certification should they have ulterior motives for creating the bank. For instance, a corporate entity who builds additional land for a remote hunting camp could still benefit from the mitigation bank process even though they would have restored the land regardless. This detail and its consequences will be discussed later.

3. Current State of Mitigation Banks

As of February 16, 2016, there are currently 19 active mitigation banks in Louisiana.¹⁷ Similar to the 2010 OCM evaluation, there remains a shortage of brackish and salt marsh bank options, with only two brackish marsh options and zero salt marsh options available. The three most southeastern parishes, Jefferson, Plaquemines and St. Bernard parish, have zero mitigation bank options to support their hosted basins, the Barataria and Breton Sound.

LDNR's most recent tabulations has calculated in-lieu costs per acre of offset at \$64,600. In other words, a permittee must pay the state \$64,600 per acre of wetlands negatively impacted, construct its own project or purchase mitigation credits from a mitigation bank owner. A mitigation bank owner would presumably have to sell the credit at a slight discount to the \$64,600, unless ulterior motives or negotiations led the permittee to purchase the mitigation bank credits for more than the in-lieu cost.

B. Carbon Markets

1. History of the Carbon Markets

Scientists have been studying the impact of CO₂ and other greenhouse gases (GHGs) on the earth's temperature as far back as the 1890's.¹⁸ However, the concern regarding human's contribution to this so called "greenhouse effect" did not receive significant attention until the 1980's. In 1992, the international community created the United Nations Framework on Climate Change (UNFCCC), a landmark treaty of 197 nations (including the United States) that continues to guide the international community's fight against climate change today.

The treaty did not set binding limits on GHG's, but it did establish an annual forum (referred to as the "Conference of Parties" or "COP") whereby the international community could meet to negotiate further protocols necessary to meet the treaty's objective of reducing global GHGs.¹⁹

¹⁷ *OCM Approved Mitigation Banks*, LDNR, available at <http://dnr.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=95>.

¹⁸ *The Discovery of Global Warming* (Spencer, Weart & American Institute of Physics 2015), available at <https://www.aip.org/history/climate/co2.htm>.

¹⁹ United Nations Framework on Climate Change, art. 2, U.N. Doc. FCCC/84 (May 9, 1992)

In 1997, the COP advanced its first major GHG initiative with the Kyoto Protocol. The protocol established legally binding obligations on developing countries to reduce their GHG emissions through three (3) flexible mechanisms: (1) International Emissions Trading (IET) - a “cap-and-trade” mechanism whereby emissions caps are placed on participating countries who then establish caps for various industries;²⁰ (2) Clean Development Mechanisms (CDM) - a method in which developed (“Annex I”) countries may invest in developing (“non-Annex I”) country projects to obtain credits, (3) Joint Implementation - a project-based process where Annex I countries may invest in other Annex I countries and receive emission credits for its achievement in emissions reductions.

Although the Kyoto Protocol was adopted in 1997, the protocol required ratification by at least 55 countries that accounted for 55 percent of the developed countries before it would become legally binding. This threshold was met in 2005 when Russia ratified the protocol. Today there are 192 participating countries in the Kyoto Protocol. United States chose not to ratify the Kyoto Protocol because of the protocol’s failure to place obligations on “non-Annex I” developing countries. United States remains a non-party today.

This deterrent should be a moot point in light of the recent UNFCCC conference in Paris, France in November of 2015. Here, 195 countries adopted the new Paris Agreement which has done away with the binary approach seen in the Kyoto Protocol, placing obligations on both developed and developing countries. Specifically, the agreement requires nation parties to submit their Intended Nationally Determined Contributions (INDC) with stated goals to meet the agreements Article 2 objectives of holding global average temperatures well below 2 degrees celsius. Prior to taking force all parties must follow domestic procedures ratifying the agreement at which point they can sign their acquiescence to the agreement held by the Secretary-General of the United Nations starting April 22, 2016.

However, because of our current political climate, President Obama’s administration played an active role in making sure the Paris Agreement only mandated procedural requirements (i.e. INDC filing and annual reporting) not substantive requirements (i.e. emission reduction levels) to avoid the need for Senate approval in accordance with Article VI of the U.S. Constitution. It is likely President Obama will try to ratify the treaty through executive action.²¹ Unfortunately, this would likely cause Louisiana to miss out on some potential international investment. Had the Paris Agreement bound the United States to hard-line emission reduction standards, we would have essentially been ratifying the Kyoto Protocol; thus, opening up opportunities for Annex I countries to purchase carbon credits in Louisiana through the Joint Implementation program. Perhaps our political landscape will change, although unlikely. Louisiana has a better opportunity of selling carbon credits through its domestic CO₂ markets. Therefore, the crux of this paper will focus on United States’ carbon markets. Nonetheless,

²⁰ The process was similar to the U.S. Acid Rain Program in that the “cap” mechanism ensures environmental objectives will be met, while the “trade” implies the tool for achieving these objectives are achieved through the most cost effective means established within the market.

²¹ Daniel Bodansky, *Legal Options for U.S. Acceptance of a New Climate Change Agreement*, at 1 (Center for Climate and Energy Solutions, May 2015)

Louisiana should keep a close eye on the nation's international involvement moving forward as there could be potential private investment available from the international community.

2. United States' Carbon Markets

Despite its non-participation in the Kyoto Protocol, United States has played a leading role in implementing cap-and-trade programs. In fact, the success of EPA's Acid Rain Program in Title IV of the 1990 Clean Air Act (CAA) led many in the international community to recognize the value of such programs. EPA's Acid Rain Program only regulates sulfur dioxide (SO₂) and nitrogen oxides (NO_x) though. There is currently no federally regulated cap-and-trade program for CO₂.

However, non-federal programs have surfaced in two areas: (1) through individual states and regions (comprised of states) initiatives, such as the Regional Greenhouse Gas Initiative (RGGI),²² the Western Climate Initiative (WCI),²³ the California's cap-and-trade program,²⁴ and (2) through a voluntary CO₂ market.²⁵

In recent news President Obama's administration is trying to issue a national standard on carbon that may lead to significant carbon trading. The program, known as the Clean Power Plan (CPP), is a nation-wide regulation of CO₂ emissions from power plants based on individual state emission reduction goals established by EPA. This program does not establish a cap-and-trade system. However, EPA issues a considerable amount of flexibility to the states to develop their own State Implementation Plans (SIPs) so long as they meet their emission reduction goals. Thus, a state can participate in CO₂ cap-and-trade programs so long as they ultimately meet their state emission goals. Many believe that the flexibility of the program will lead states to utilize the most cost-effective reduction platform seen thus far - market based cap-and-trade, which in result could expand the non-federal trading platforms discussed above.

CPP's fate has yet to be decided. On October 23, 2015, 24 states, including Louisiana, filed suit against the Obama administration arguing its abuse of congressional authority outlined in Section 111(d) of the CAA. On February 9, 2016, the United States Supreme Court stayed implementation of the CPP pending judicial review by the U.S. Court of Appeals for the District

²² RGGI was formed in 2003 as the first market-based regulatory program created by several northeastern states to fight CO₂ emissions from the power sector in their region. RGGI participating states include Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island and Vermont.

²³ WCI was formed in 2007 by five western states, including Arizona, California, New Mexico and Washington as a similar market-based emission reduction effort through multi-sector involvement. WCI has not been as successful as the RGGI, retaining only California and four Canadian provinces to date.

²⁴ California once again pioneered individual state efforts implementing its own GHG cap and trade program in 2012. California utilizes its own cap and trade program in conjunction with other WCI members to deliver the most cost-effective emission reductions to its capped sectors.

²⁵ As a non-mandatory program, these voluntary markets are not restricted to member states or jurisdictional lines and should therefore be designated as international markets. However, as discussed below, we will focus on a domestic voluntary market, the American Carbon Registry, for sake of simplicity.

of Columbia.²⁶ The order indicates the Court's willingness to overturn the CPP, though many believe it will be upheld given the Court's approval of EPA's jurisdiction over CO₂ under Section 111(d) of the Clean Air Act.²⁷

Applying simple principles of economics, one could see how CPP's encouragement of carbon trading would increase demand of CO₂ credits; therefore, increasing the price of credits and making them more appealing to landowners and investors in Louisiana. However, Louisiana's interest in capitalizing on an increased participation in these non-federal programs is far outweighed by the policy impacts power plants will face if they are forced to comply with the CPP. These policy issues are beyond the scope of this paper. Accordingly, we will limit our attention to the *opportunities* available in the non-federal trading programs.

3. Non-Federal Program Eligibility

a) Participant Eligibility

Unlike the voluntary market, which is open to anyone with a carbon reduction interest, the state and regional carbon trading programs are limited to state members. Louisiana is not a member of any regional program. The closest regional program is the RGGI, with its nearest state being Maryland. Thus, Louisiana landowners and investors may only trade carbon credits in the voluntary market right now, which is what we will focus on in this paper. It should be noted, however, that if the CPP is upheld the national emission standard will require Louisiana to eventually comply with carbon emission standards similar to the regional standards such as the RGGI and WCI. If Louisiana is subject to similar standards as these regional programs, it may be beneficial to the state to take advantage of these cap-and-trade programs by becoming a member, or even creating its own southern regional cap-and-trade program with neighboring states. Such involvement could significantly increase private investment in Louisiana's coast, relieving government burden, and therefore offsetting some of the costs otherwise argued in creating a cap-and-trade program.

b) Credit Eligibility

The "voluntary market" can be broken into two parts: (1) the *registry* of carbon credits through a validation process, and (2) the *exchange* of these carbon credits through an open market trading platform. *Part I* of this research is concerned with the registry (or validation) of these carbon sequestration credits, because there is no value in our carbon sequestration efforts if we cannot get them registered.

²⁶ West Virginia, et al. v. EPA, et al., 577 U.S. ____ (2016). No. 15-1363, Supreme Court of the United States. (February 9, 2016).

²⁷ 42 U.S.C. § 7411(d). See *American Electric Power v. Connecticut*, 131 S. Ct. 2527 (2011); see also *Massachusetts v. EPA*, 549 U.S. 497, 528, 532 (2007).

There are many different registries (or programs) used to verify carbon offset credits, both domestic and international.²⁸ For sake of simplicity, we will review just one, the American Carbon Registry (ACR). ACR is a fitting choice for a couple of reasons. First, ACR is one of the premier GHG offset programs in the world, known for its strict standards and strong accountability. Therefore, proper vetting under ACR should ensure verification under other programs. Second, ACR has already approved a Louisiana methodology.²⁹ ACR requires that you use an approved methodology prior to validating credits. With a previous methodology in place, we can focus our efforts on the validation of specific projects.

Our examination is therefore reserved to the specific standards outlined in ACR Standard v4.0, the official guidelines used by an examiner (typically a certified third-party) prior to validating carbon credits. Standard v4.0 outlines a set of universal requirements and specifications that almost all GHG registries require, including elements such as quantifying GHG emission reductions, reporting, accuracy and boundary selections.³⁰ A majority of these procedural requirements, although determinative of eligibility, are either cost-benefit questions or methodology issues outside the scope of *Part I*. *Part I* examination is reserved to the single criteria that appears to have limited the use of carbon offset and mitigation financing together - the *additionality* standard.

Additionality is a term of art used in the GHG offset community to ensure that projects are demonstrating efforts above and beyond the “business as usual” scenario. In other words, the GHG reductions and removals must exceed what would have occurred without the monetary enticement of acquiring and selling carbon credits. As ACR points out, however, “[t]his does not mean the project activity delivers no financial or other benefits other than GHG reduction; it simply attempts to ascertain whether GHG reduction was a *driving factor*.”³¹

Standard v4.0, Chapter 4, outlines two ways in which a project can meet the *Additionality* test, either (1) by exceeding an approved performance standard, as defined in the applicable methodology, and a regulatory additionality test (described later), or (2) by passing a three-prong test of additionality. The former is project specific and therefore outside the scope of *Part I*. The latter presents a set of objective standards that we can analyze to determine whether Larry’s idea of stacking LMP and carbon credits would violate ACR’s *Additionality* test.

²⁸ American Carbon Registry (“ACR”), Center for Resource Solutions (“CRS”), Green-e Climate Protocol for Renewable Energy, Chicago Climate Exchange (“CCX”), Clean Development Mechanism (“CDM”), Climate Action Reserve (“CAR”), Climate, Community and Biodiversity Standard (“CCBS”), Gold Standard, Regional Greenhouse Gas Initiative (“RGGI”), and the Verified Carbon Standard (“VCS”).

²⁹ This paper omits citation of the scientist and methodology approved by ACR to avoid any conflicts with reasoning or analysis this scientist may have with this paper.

³⁰ Another very important criteria is the Permanence required for an ACR approved project. According to Standard v4.0, Chapter 5, ACR addresses Permanence, or the fear of reversal, by instituting risk mitigation or risk transfer techniques at the outset of a project. Options include requiring a Project Proponent to contribute a percentage of offsets into a ACR buffer pool to compensate for the risk, or purchase of insurance from a third-party. Although substantive and not procedural, the question of Permanence is an expense issue that needs to be factored into a cost-benefit analysis and has therefore been reserved for *Part II*.

³¹ *The American Carbon Registry Standard: Version 4.0*, 22 (January 2015)(emphasis added).

Standard v4.0, Table 3, offers the following three-prong *Additionality* test, which we will discuss in detail in Section IV:

Test	Key Questions
Regulatory Surplus:	<p>Is there an existing law, regulation, statute, legal ruling, or other regulatory framework in effect as of the project Start Date that mandates the project activity or effectively requires the GHG emissions reductions?</p> <p style="text-align: center;">Yes = Fail; No = Pass</p>
Common Practice:	<p>In the field or industry/sector, is there widespread deployment of this project, technology, or practice within the relevant geographic area?</p> <p style="text-align: center;">Yes = Fail; No = Pass</p>
Implementation Barriers: <div style="display: flex; justify-content: space-around;"> <div data-bbox="337 905 456 936">Financial</div> <div data-bbox="272 1167 456 1199">Technological</div> <div data-bbox="302 1430 456 1461">Institutional</div> </div>	<p>Choose one of the following three: Does the project face capital constraints that carbon revenues can potentially address; or is carbon funding reasonably expected to incentivize the project’s implementation; or are carbon revenues a key element to maintaining the project action’s ongoing economic viability after its implementation?</p> <p style="text-align: center;">Yes = Pass; No = Fail</p> <hr/> <p>Does the project face significant technological barriers such as R&D deployment risk, uncorrected market failures, lack of trained personnel and supporting infrastructure for technology implementation, or lack of knowledge on practice/activity, and are carbon market incentives a key element in overcoming these barriers?</p> <p style="text-align: center;">Yes = Pass; No = Fail</p> <hr/> <p>Does this project face significant organizational, cultural, or social barriers to implementation, and are carbon market incentives a key element in overcoming these barriers?</p> <p style="text-align: center;">Yes = Pass; No = Fail</p>
<p>If the project passes the Regulatory Surplus and Common Practice tests, and at least one Implementation Barrier test, ACR considers the project additional.</p>	

IV. OPPORTUNITY FOR JOINT USE

ACR’s three-prong *Additionality* test offers a straightforward examination of whether Larry could use both mitigation bank credits and carbon credits. We will examine these prongs

here. Lastly, we will examine the practical use of such project given Larry's location, the state's current restoration efforts and the potential need to reassess available locations for joining credits.

A. Regulatory Surplus Test

Let's assume Larry would like to build a mitigation bank on his property in accordance with Louisiana's mitigation bank procedures. There is no "law, regulation, statute, legal ruling, or other regulatory framework"³² in effect that mandates or effectively requires Larry to start this project. Louisiana's mitigation bank opportunity is a completely voluntary initiative for Larry. Let's assume further that Larry has been approved to start his mitigation bank, and has therefore decided to build his bank in interest of receiving mitigation bank credits from the state. Even after approval by the IRT, there is nothing requiring Larry to continue with his project. He may stop his project at any time. In Louisiana, we refer to this as a civil obligation.³³ Larry has no civil obligation to anyone to start his mitigation bank project.

Indeed, once completed and credits are assigned, Larry must maintain his bank in accordance with OCM requirements. However, this obligation is after the "project's start date"³⁴ and therefore not applicable in ACR's Regulatory Surplus test. Furthermore, this legal obligation after the project is completed cannot be seen as a "driving factor" influencing Larry's decision to build his land bank because the obligation was not in force until after the project was complete.

Larry's voluntary attempt to build a mitigation bank is in contrast to a permittee. A permittee is required by law and regulation to pursue compensatory mitigation. This would be their driving factor should they chose to build back land themselves. Larry is not a permittee.

B. Common Practice and Financial Barriers Tests

ACR's Common Practice test requires a Project Proponent to "evaluate the predominant technologies or practices in use in a particular industry, sector, and/or geographic region, as determined by the degree to which those technologies or practices have penetrated the market." Once determined, it is the Project Proponent's burden to demonstrate that the proposed project activity is "no[t] common practice and will reduce GHG emissions below levels produced by common technologies or practices within a comparable environment (e.g., geographic area, regulatory framework, investment climate, access to technology/financing, etc.)."³⁵

Larry's compliance with ACR's Common Practice test is proven by his compliance with the third test, Larry's financial barriers, which have discouraged him from participating in a mitigation bank before now. As witnessed in OCM's February 2016 list of active mitigation banks, there are no saline marsh banks registered with the state. Additionally, there are no marsh

³² Standard v4.0, Table 3, row 1.

³³ LA. Civ. Code Ann. art. 1757.

³⁴ Standard v4.0, Table 3, row 1.

³⁵ *The American Carbon Registry Standard: Version 4.0, supra*, at 24.

mitigation banks in the Barataria or Breton Sound basin. The risk associated with building land back in these saline-enriched marshes has been too high when compared to the potential compensation allowed under the mitigation bank program. However, what if the additional carbon credits generated from the same bank was enough return on investment (ROI) to encourage Larry to build his land back? Such an ROI, or internal rate of return (IRR) as ACR calls it, could be the driving factor in Larry's attempt to build back land in his saline marshland.

As pure illustration at this point, let's assume Larry's tract of land contains 250 acres. Larry would like to build the land back, but realizes pursuing a mitigation bank, by itself, would generate up to \$16,000,000. After considering the costs of construction, third-party support and administrative costs of building back the land, he determines the \$16,000,000 *potential* revenue is not enough to offset the *guaranteed* costs totaling approximately \$14,500,000, offering just a little over ten (10) percent interest on his investment. However, what if Larry also considered the potential revenue he would receive from carbon credits if, for example, he could generate an additional 1.5 million³⁶ dollars, thus yielding 21 percent return on his investment. This would potentially be Larry's *driving factor* in pursuing the project.

Without precedent to analyze, however, it is difficult to determine whether ACR would consider Louisiana's salt marshes as a separate "geographical area" from Louisiana's other less saline-enriched mitigation banks. Notwithstanding this absence, according to Standard v4.0, Chapter 4(A)(2):

[T]he level of penetration that represents common practice may differ between sectors and geographic areas, depending on the diversity of baseline candidates. The common practice penetration rate or market share for a technology or practice may be quite low if there are many alternative technologies and practices. Conversely, the common practice penetration rate or market share may be quite high if there are *few* alternative technologies or practices.³⁷

There are *no* technologies or practices in place encouraging saline marsh creation at this time. Larry's attempt to build back land in the saline-enriched Barataria basin would be a "first-of-its-kind," a key indicator to ACR that this is not a common practice.³⁸ Regardless of Larry's joint receipt of both mitigation and carbon credits, one cannot deny Larry's compliance with the spirit of ACR's *Additionality* test, which is to determine whether carbon credit revenue would be a "driving factor" in Larry's decision to build back his land. In this case it certainly would be.

C. Larry's Contribution to the State's Master Plan

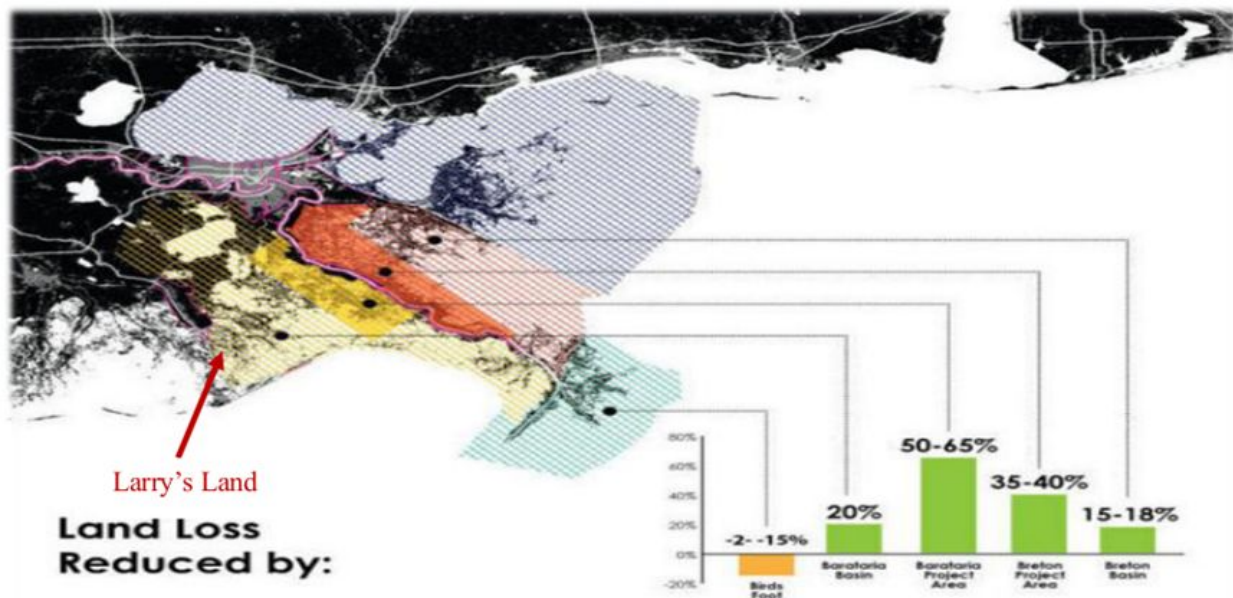
³⁶ The calculations used to generate this revenue estimate, although extremely relevant to the practicality of this endeavor, have been omitted for this initial paper, which is to assess the legal possibility of combining both financial sources - *assuming* carbon credits were valuable enough. The carbon credit is in a current bear market that would make this entire analysis moot. However, a rising carbon credit price would have a corresponding impact on the strength of our argument.

³⁷ *The American Carbon Registry Standard: Version 4.0, supra*, at 24.

³⁸ *Id.*

Larry's location in the salt marshes of Barataria basin suggest potential compliance with ACR's *Additionality* test. However, there is another incentive to Larry's location. Larry's location has potential to alleviate the concerns OCM has with using the mitigation bank program over its in-lieu program. As previously mentioned, OCM is not opposed to the mitigation bank option. It simply prefers the in-lieu program because (1) the mitigation banks are not being built in the impacted basins, and (2) the in-lieu fees will create a unified pot of money to support projects *adjacent to, and in support of,* larger state and federally funded projects.

According to the state's most recent initiatives, Larry's project may be adjacent to, and in support of, the largest project proposed to date. Louisiana's Coastal Protection and Restoration Authority (CPRA) has recently approved advancement of two Mississippi diversions to the engineering and design phase. These large scale efforts, referred to as the Mid-Barataria and Mid-Breton diversions, are what many believe is the only way that Louisiana can fight off land loss from a host of environmental threats, including, but not limited to, climate change, subsidence, saltwater intrusion and storm damage. CPRA has illustrated its projections of how these diversions will impact Barataria west of the Mississippi River (yellow) and Breton Sound east of the Mississippi River (orange) below:



As seen above, Larry's location is on the western boundary of the projected scope of CPRA's Mid-Barataria impacted region. Larry's project would potentially provide adjacent support to CPRA's major river diversions. The same could be said if Larry's land was located in the Breton Sound basin.

There is concern, however, which will require consultation with coastal scientists. To what degree will these Mississippi River diversions impact the saline characteristics of Larry's land through diversion of freshwater deposits into these regions? Will that compromise Larry's ability to comply with ACR's *Common Practice* test? If so, to what extent (distance) would a

landowner's project have to be removed from the diversions? These questions, along with many others, will be addressed in *Part II*.

IV. A PLAN FOR *PART II*

The *Additionality* test serves as the initial gatekeeper in determining whether mitigation credits and carbon credits can be used together. Accordingly, immediate contact with ACR is a preferred first step to see if this joint use is something they would consider. Other carbon registries can be engaged, but as previously noted, it would be beneficial to get approval from a registry that has already approved a Louisiana specific methodology. If considered feasible, an enclosure will be prepared for *Part I* to indicate ACR's potential validation subject of course to further project-specific criteria needed.

Part II will entail a more comprehensive look at the practical application of combining these two conservation finance tools in support of current state and federal projects. Likewise, there will need to be active participation from interested parties willing to invest time in an innovative approach to private investment. This will require additional capital and/or strong charitable efforts from vested parties. Hopefully, at a minimum, this initial research will trigger interest from parties with the experience and knowledge to offer constructive feedback. The following is a running list of experts and issues that need to be engaged to make *Part II* viable:

Experts:

ACR. ACR will most likely be limited in its ability to give information ahead of time. However, initial contact is recommended to see if there are actions that need to be taken to place our efforts in a position of compliance. Alternatively, if available, it would be beneficial to engage a neutral, third-party evaluator that could give their expert opinion on the likelihood of stacking these credits. The intent is to locate an experienced, well vetted evaluator who can provide constructive feedback rather than find ways to say no to a novel approach.

Coastal Experts. Coastal scientists and engineers add a wealth of specialized knowledge that can assist with research, cost-analysis, program management and risk-analysis. Additionally, coastal scientists and engineers would offer subject matter expertise needed to persuade a registry, or third-party evaluator, as to why a saline project meets the *Additionality* test.

Conservation Investment Firm. There are several financial or risk management based firms that specialize in conservation financing as specialized syndicates for offset markets. These firms have extensive experience evaluating costs, predicting ROI, locating compatible financial tools available, taxes, etc. Moreover, these firms offer input on the risk mitigation and risk transfer tools available (i.e. insurance).

Private Landowners. Individuals, businesses and the State (and its political subdivisions) are all viable candidates as landowners in Louisiana. Each has an interest in increasing restoration efforts and should be engaged to look at specific opportunities and risks

associated with projects based on a landowner's geographical location, environmental hazards, social and cultural impacts, etc.

Governmental Officials. State and federal officials should be engaged to see what additional obstacles need to be addressed, and if there is likelihood of overcoming these obstacles with beneficial results. Agencies include, but are not limited to, the following: OCM, Office of State Lands (OSL), the Louisiana Office of the Attorney General's Office (AGO), USACE and the IRT. Additionally, CPRA should be consulted on a consistent basis to see if potential projects are in line with the State's Master Plan.

Additional Issues:

Land and Property Issues. There are still many legal issues that need to be evaluated, many of which deal with the property issues unique to Louisiana. Carbon credits are considered an incorporeal immovable,³⁹ which when derived from one's land, may further be defined as a "civil fruit" subject to ownership by the landowner.⁴⁰ However, the state has claimed ownership to "any monetary compensation derived from the sequestration of carbon on the surface of land or water bottoms ... *directly related* to the avoided conversion or avoided loss attributable to a project carried out or sponsored by the [CPRA]"⁴¹ Clearly CPRA's diversions would be considered one of those sponsored projects. The degree to which CPRA's diversions are directly related to Larry's project may vary depending on the facts. This issue is further complicated by the fact that CO₂ is a fugacious (gaseous form) mineral, which is not subject to ownership like ordinary property. Rather, the landowner receives an exclusive right to explore and develop "such minerals and to reduce them to possession and ownership."⁴² Therefore, prior to the state claiming ownership to the monetary compensation derived from the carbon credit, there was an exclusive right (incorporeal immovable) that has been taken from the landowner. What is the just compensation for this property, and how would such be calculated? These are hopefully issues that can be resolved through negotiation, but they are issues nonetheless.

Liability. As always, liability is an issue that needs to be addressed thoroughly in a cost-benefit analysis. There are various forms of liability at stake, including professional liability, commercial liability, breach of contract, government taking, warranties, etc. Fortunately, with everyone having a common environmental risk at stake, hopefully most risks can be addressed through negotiations focused on the ultimate goal of generating benefits not just for each other, but for the state as a whole.

³⁹ LA CIV. CODE art. 470.

⁴⁰ LA CIV. CODE art. 551.

⁴¹ LA. REV. STAT. 9:1103 (emphasis added).

⁴² LA. REV. STAT. 31:6

