

LOUISIANA COASTAL MANAGEMENT PROGRAM

Assessment and Strategy
2011-2015

Submitted to the
National Oceanic and Atmospheric Administration
Office of Ocean and Coastal Resource Management

For the Determination of Priority Enhancement Areas

Authorized by Section 309 Coastal Zone Protection Act of 1972
(As amended in 1990 and 1996)

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INTRODUCTION

Section 309 of the Coastal Zone Management Act (CZMA), as amended in 1990 and 1996, establishes a voluntary coastal zone enhancement grants program to encourage states and territories to develop program changes in one or more of the following nine coastal zone enhancement areas:

- Wetlands
- Coastal Hazards
- Public Access
- Marine Debris
- Cumulative and Secondary Impacts
- Special Area Management Planning
- Ocean Resources
- Energy and Government Facility Siting
- Aquaculture

This document is an Assessment and Strategy for enhancing Louisiana's Coastal Resources Program (LCRP) using section 309 funding from the U.S. Department of Commerce for the time period of 2011-2015. The document provides an introduction to Louisiana's Section 309 program, an overview of past 309 efforts and an assessment of coastal resources throughout the Louisiana Coastal Zone (LCZ) as they pertain to the nine pre-identified enhancement areas during the 2006-2011 reporting period, an identification of data gaps in obtaining 309 programmatic objectives, and a multi-year strategies for implementing priority enhancement projects. The implementation of the strategies will result in changes to the LCRP that support attainment of the objectives of one or more of the section 309 enhancement areas.

Staff meetings were conducted throughout the document preparation and editing periods with representatives from all sections of OCM strategizing on the individual assessments and strategies sections. Individual staff members were assigned specific section write-ups and the individual sections were combined into this document by Interagency Affairs staff members. Public notice of the document was placed in the official state journal, *The Advocate*, on June 29, 2010. The Draft Assessment and Strategy document is on the Louisiana Department of Natural Resources/Office of Coastal Management (LDNR/OCM) webpage. The final will replace the draft version upon completion. Copies of the document were sent to all of the state's approved Local Coastal Management Programs as well for input from our local partners in coastal management. A public meeting was held on August 30, 2010 in the LaSalle Building. No public comments were received (please see Public Comment/Response Section).

Over the past few years, the LCRP has been able to fund important projects through section 309. One such project assessed the Louisiana chenier plain ecosystem and provided potential options for improved management of these unique resources. Another project led to improved GIS capabilities regarding coordination and management of coastal resources consistent with Louisiana's comprehensive Master Plan for a Sustainable Coast. New data base software programs that use buffer, merge, query, intersect, union and other Boolean type functions serve

to alert permit reviews to potential master plan coordination scenarios. New procedures have been implemented utilizing the resulting data base query for coordination with other natural resource agencies that result in improved permit processing efficiency. In addition, a new coordination procedure has been developed with state restoration agency personnel to ensure permit/master plan compliance. OCM has also implemented a new beneficial use of dredged material policy with newly promulgated rules and regulations and developed the Louisiana Coastal Hazard Mitigation Guidebook utilizing 309 strategies.

There were changes in priority from the 2005-2010 reporting period. Coastal Hazards remained a high priority as it was last assessment; Wetlands also remained a high priority. Public Access decreased from medium to low priority. Marine Debris increased from low to high priority. Ocean Resources and Special Area Management increased from low to medium priority. Energy & Government Facility Siting also increased from low to medium priority. The following categories remained low priority: Cumulative and Secondary Impacts and Aquaculture. Please see each category for a detailed discussion and rationale.

To continue improving the LCRP, Louisiana will build on previous Section 309 efforts while expanding its vision to include other concerns. New strategies in three primary enhancement areas for the 2011-2015 assessment and strategy are proposed, Coastal Hazards, Energy and Government Facility Siting and Wetlands. However, many of these strategies will have beneficial implications in multiple enhancement areas.

SUMMARY OF PAST EFFORTS

STRATEGY: COASTAL USE ACTIVITIES AFFECTING THE CHENIER PLAIN

Cheniers can serve as southwestern Louisiana's first line of defense from coastal storms and surges. OCM identified a need to assess the threat to these features from anthropogenic activities. The first portion of the 309 strategy was an assessment of current conditions and a determination of the appropriate coastal activities that should be allowed on the chenier ridges via an examination of anthropogenic activities currently occurring on the ridges, e.g. grazing, forestry, farming, roads, urbanization, oil and gas exploration and production, and mining. A concern exists that continued development and even more germane the outright destruction of the chenier ridge system due to sand mining in southwestern Louisiana would remove the area's first line of defense from coastal storms and storm surge. Toward this end the LDNR commissioned a study to conduct an in-depth assessment of the geomorphic formation, existing conditions, ecological, biological and geomorphological integrity and the ridges' ability to continue to support various anthropogenic activities.

The next step in the assessment and strategy was an outreach effort to parish governments in the coastal prairie plain. The LCRP presented information from the study to the Cameron Parish Police Jury in May of this year. OCM staff traveled to Cameron on May 26, 2009 to a parish council meeting and gave a presentation on the study. One result of the study was that activities conducted on cheniers should receive an expanded review process to insure that the chenier's structural integrity is not compromised. The Cameron Parish Council expressed that they would no longer authorize destructive activities on cheniers. The study can be found on the Louisiana Department of Natural Resource's webpage: <http://dnr.louisiana.gov/> at the following web address: <http://dnr.louisiana.gov/assets/docs/coastal/227-009-001NG-Chenier%20Rpt-DNR.pdf>.

OCM conducted a legal analysis of the State and Local Coastal Resources Management Act of 1978 (SLCRMA), La. R.S. 42:214.21 et seq., and the corresponding provisions in the Louisiana Administrative Code, LAC 43:I.Chaper 7., LAC 43:I.Chaper 7, Art 9 sec 1 of the Louisiana Constitution, Louisiana Attorney General Opinion 89-640, the Louisiana Coastal Resources Program Final Environmental Impact Statement, U.S. Dept. of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management and the Louisiana Dept. of Natural Resources, Coastal Management Section (1980) [FEIS] and interviews with Office of Coastal Management staff, in order to ascertain how OCM can address activities affecting cheniers.

It is the opinion of the Office of Coastal Management attorney that beyond the first tier of regulation provided by local governing authorities, there are in place two specific provisions in Louisiana state law providing for enhanced regulation of cheniers and coastal ridges by the Office of Coastal Management, and there is also an implied method of enhanced regulation of these areas by the Office of Coastal Management within existing law. There is also a mechanism for state purchase of the areas for which protection is sought. In addition, new legislation is an option to provide enhanced regulation of cheniers and coastal ridges.

- The statutes provide for the designation of special areas. This special area designation could lead to special guidelines for uses on cheniers.
- An additional option available for the enhanced protection of cheniers is that the secretary may make a declaration that cheniers are special significance areas.
- An additional possible option for enhanced protection of cheniers involves use of a program that provides for the purchase of the land by a state agency. This mechanism provides for the Secretary of Wildlife and Fisheries to purchase the land for preservation of areas of special significance such as cheniers pursuant to the Wildlife Habitat and Natural Heritage Trust. This option is identified by the attorney general in Louisiana Attorney General Opinion 89-640 concerning possible methods of protection of cheniers.
- Another option to protect the cheniers is to make the uses state concerns instead of local concerns. One direct approach to accomplish this goal would be to amend the provisions of law that classify uses on cheniers as local concerns. Presently, uses on cheniers, salt domes, or similar land forms, are designated as uses of local concern. There could also be some additional language that clarifies that uses on cheniers are subject to the regulation of the OCM, irrespective of the elevation where the proposed use is to take place. While state legislative change might provide the most comprehensive protection, local enforcement and legislation are the fastest and most direct means to provide some protection for cheniers, and each of the three parishes that have cheniers could enact ordinances that would have the effect of protecting cheniers from deforestation and becoming new areas of open water. No program changes have resulted from this strategy so far. OCM is still reviewing which options to pursue.

The next task of this strategy is the GIS Database for Permit/Consistency Review. The OCM is building a GIS database for incorporation into the existing GIS/electronic permit application review process. The database will incorporate the information provided by the previous research task and will assist in permit and consistency reviews of uses which involve cheniers. This task is in the quality control phase and is nearing completion.

***STRATEGY: COASTAL CHENIERS AND OTHER AT-RISK COASTAL LANDFORMS;
INNOVATIVE PLANNING AND POLICY OPTIONS TO SUPPORT LAND USE PLANNING
AND IMPLEMENTATION OF THE STATE MASTER PLAN***

This strategy was added in November 2009 and consists of three phases. In the first the OCM has contracted with the Louisiana Sea Grant Law and Policy Program (SCLPP) to evaluate existing planning documents at the state and local level and provide the OCM with a summary of the currently existing planning and zoning framework available to parishes for land use planning and regulation. The SGLPP will also develop an options paper which will provide the OCM with scenarios and protocols which the state program can consider undertaking to encourage and promote more formal planning and zoning for land use at the local level with a goal towards supporting and implementing the State Master Plan. These considerations should incorporate the possible option of an increased number of parishes in a revised coastal zone and tiered regulatory framework for additional parishes. This phase has begun and will be complete by December 2010 or extended through a grant amendment.

In the second phase of this project, the state will adopt the strategies and mechanisms recommended by the legal analysis of phase 1 of the project and develop and implement two demonstration projects with cooperating parishes to measure the usefulness and effectiveness of the selected mechanisms. Priority will be to work with Cameron, Vermilion and/or Lafourche parishes to assess the chosen policy initiative as it relates to cheniers or similar elevated landforms. This phase will be done in 2011.

A strategy proposed for this 309 strategy period is to use the mechanisms such as model ordinances and policy options which were developed in the previous tasks to encourage local governments to more actively integrate land use planning components into their local coastal programs. The State could also provide incentives for local governments to adopt innovative land use planning mechanisms for Sea Level Rise adaptation and conformance to the State Master Plan. See the coastal resiliency strategy section for additional details.

STRATEGY: INTEGRATION OF LOUISIANA'S COASTAL PROTECTION AND RESTORATION AUTHORITY'S (CPRA) COMPREHENSIVE MASTER PLAN FEATURES INTO GIS

The Louisiana Coastal Protection and Restoration Authority (LCPRA) has been developing a Master Plan for the protection and restoration of coastal Louisiana. The resulting Louisiana's Comprehensive Master Plan for a Sustainable Coast has been developed. This plan contains significant civil works features, restoration of coastal wetlands and non-structural, e.g. legislative, policy and administrative protection and restoration implementation actions.

Louisiana has suffered significant loss of life, injury and property damage from natural hazards. Louisiana's coastal land loss rates are unprecedented. In January of 2008 Louisiana Governor Bobby Jindal signed an executive order to maximize the efficiency of Louisiana's coastal restoration and hurricane protection efforts by requiring all state agencies to comply with the Comprehensive Master Plan for a Sustainable Coast which lays out coastal and hurricane protection priorities as recognized by the Coastal Protection and Restoration Authority, including the Department of Transportation and Development, the Department of Natural Resources, and the Governor's Office of Coastal Activities. The executive order the Governor signed required all regulatory agencies to adhere to the projects and priorities enumerated in the State Master Plan which was previously authorized by the Coastal Protection and Restoration Authority.

After thorough analysis and review of implementation, OCM determined that neither statutory authority nor promulgation of rules and regulations were necessary to implement the inclusion of the State's Comprehensive Master Plan for a Sustainable Coast (the Master Plan) into permit decisions. This implementation did require the addition of policies and procedures to the permit review process. Implementation of these procedures required a great deal of coordination and interaction with the Office of Coastal Protection and Restoration (OCPR) management and staff. A contractor working closely with OCM staff developed the recommended guidance including

the list of projects and GIS data sets. The implementation of the Master Plan review processes was a major addendum to the permit review process.

The Master Plan concerns were identified as requiring two distinct types of review. The most easily identified were the restoration and levee projects that were planned and could be identified on one or more locations on a map. The second type of review is for those permit applications whereby the Master Plan concern is a concept or guideline to protect people and the environment. An example of this would be “Development in low lying areas, even within hurricane protection systems, increases the overall levels of risk and diminishes the effectiveness of the protection systems. Such an outcome would be counter to the Master Plan’s objectives of sustaining wetland ecosystems and reducing the flooding risks borne by coastal communities.” Review of permit applications that might be counter to the objectives of the Master Plan are handled during the already established coastal use guideline review process and in the hazard review. The addition to the permit review policy and procedure is that if a coastal use permit application potentially is counter to the Master Plan concept, the analyst identifies which Master Plan objective(s) might be in nonconformance and that application is forwarded to the OCPR for comment. Those comments are incorporated into the permit decision.

For the first type, the GIS data was formatted and entered with set selected buffers for each type of Master Plan project into the automated permit review system. All the description that follows in this paragraph is new procedure to the permit review process. The automated system generates an item in the report that details the potentially impacted Master Plan project. During initial review of permit applications by the supervisor, the Master Plan items identified by the GIS system are noted. Using a matrix developed by the contractor, the OCM staff member will determine at what level the decision of potential master plan impacts is to be made. Most decisions are made at the staff level. For some permit applications the decision for potential impacts is elevated to the manager or administrator. For the highest level on the matrix, there is no decision at OCM, the applications are to be forwarded to the OCPR. For those whereby the decision is to forward to OCPR, the resulting comments from OCPR are a part of the final permit decision. For all applications whereby there is a decision and for those the matrix indicates to send to OCPR, the matrix sheets are made a part of the permit review record along with the response received from the OCPR personal. If the OCPR response indicates there is a potential conflict with Master Plan projects or polices, further review and/or application revision is warranted.

To achieve the last undertaking in this strategy period, the Office of Coastal Management will work with DNR’s Information Technology section to develop and implement automation within the electronic application system. This will be done by modifying the electronic application system to include an additional checkbox (Master Plan/Levee Coordination required) within the Sensitive Features section of the Preliminary Determination Screen for OCPR coordination. This task will be completed in 2011.

STRATEGY: LCP INTEGRATION INTO COASTAL PROTECTION AND RESTORATION

A GIS database has been constructed and integrated into the existing OCM database capabilities which informs the Master Plan developers about already permitted activities and also informs the state and LCP administrators about plan projects, as well as potential conflicts. The interagency affairs staff members have worked diligently assisting the LCPs in utilizing this GIS database in the review and permitting process. The GIS layers delineating the different coastal protection and restoration projects increase plan coordination and preclude conflicts. The local coastal programs have implemented procedures that incorporate this GIS resource into their local permit reviews.

STRATEGY: BENEFICIAL USE OF DREDGE MATERIAL CONTRIBUTION FUND

Millions of cubic yards of sediment that could be restoring vanishing wetlands are lost to the Louisiana coastal system every year from non-beneficial disposal and natural processes. The new rules on the beneficial use of material dredged in projects requiring a coastal use permit went into affect October 20, 2009. The changes include four options for permit applicants involved in coastal projects that include dredging – implementing a project that makes beneficial use of the dredged material to create or restore wetlands, providing for the use of the dredged material on an approved coastal restoration project to create or restore wetlands, using dredged material at another location that creates the same amount of beneficial use to create or restore wetlands, or making a voluntary contribution to the Coastal Resources Trust fund to create or restore wetlands, based on the amount of material dredged. The intent of the new rules is to ensure as much material as possible from dredging projects under state regulation is put to beneficial use to create, protect or restore wetlands.

The beneficial use rules apply to any project requiring a state coastal use permit that involves dredging 25,000 cubic yards or more to facilitate the movement or mooring of vessels. The estimated amount of material in eligible projects has amounted to about 3 million cubic yards annually, though only about 22 percent of it was put to beneficial use under the old program.

The new rules will significantly increase the performance of our beneficial use program, and the framework of the regulations will also better allow for the material, or in-lieu contributions, from several smaller projects to be combined for more comprehensive coastal restoration and protection projects. The new rules, with the four options, allow for greater flexibility in cases where obstacles, such as project location or dredged material quality could otherwise prevent beneficially using the dredged material.

One of these options would allow for an in-lieu fee payment. The fee amount this fiscal year is \$1.05 per cubic yard. The price from the rule is \$1 per cubic yard or 1.5% of the average of the 12 monthly postings by the US Dept of Energy of the spot price of West Texas Intermediate from July 1, 2008 to June 30, 2009. This was calculated by the DNR Energy Office at \$69.69 per barrel; therefore the price is \$1.05 per cubic yard.

The GIS Support Services is currently building the database for Beneficial Use Projects. They are currently designing and creating a spatial database for beneficial use data to post on our SDE network. Dredged and Beneficial Use Areas must be clearly labeled on plats submitted for approval so that these areas can be included in the database. This database will include the following information; Permit Number, Cubic Yards, Contribution Amount, Restoration Project Name, Dredged Area, and Beneficial Use Area. The amount of the contribution and the restoration project's name must be supplied to GIS Support Services by permitting staff for entry into the database. If an applicant chooses to make contribution to the trust fund the only spatial entry will be the dredged area with the permit number, cubic yards, and contribution amount fields attributed.

The OCM will continue to implement policy and procedures under the new rules promulgated for beneficial use and correct problems identified. One task is to create accounting codes to tag those funds and ensure they are tracked and maintained properly. Additionally, issues that have been identified to date that will require policy and procedures to be developed and implemented by staff include:

- A method of refunding monies for projects not implemented.
- A method of encumbering the funds until the project is complete or permit expires.
- A set of requirements for verification of dredge amounts and costs.
- A set of criteria for what is acceptable use of spoil on-site.
- Staff must be trained in new procedures to document and track the beneficial use activities.

STRATEGY: BENEFICIAL USE OF DREDGED MATERIAL: FEDERAL CONSISTENCY IMPLICATIONS OF THE STATE'S PROPOSED BENEFICIAL USE REGULATIONS.

The OCM has contracted with the SCLPP to analyze the state's existing enforceable policies regarding the beneficial use of dredged material and the newly promulgated regulation for beneficial use related to coastal use permits with dredging of 25,000 cy or more of spoil. The SGLPP will then consider options which the state may use, including, but not limited to application of federal consistency to maximize the beneficial use of dredged material from other activities conducted in the coastal zone. The SGLPP will propose specific protocols explaining how the state could employ any potential mechanism to achieve this goal. This task has begun and will be completed by December 2010, or extended through a grant amendment.

Based on the mechanisms identified in the first task, the OCM will develop new policies and procedures to increase beneficial use of dredged material from projects subject to Federal Consistency. This may involve new agreements with federal agencies and promulgating rules and procedures for consistency determinations. This task will be completed in 2011.

STRATEGY: EVALUATION OF THE ADEQUACY OF THE LOUISIANA COASTAL ZONE BOUNDARY AND CONSIDERATION OF POSSIBLE ALTERNATIVES: A REEVALUATION OF THE INLAND BOUNDARY OF THE LOUISIANA COASTAL ZONE

Under the previous Section 309 Assessment for Louisiana OCM analyzed and developed a revised inland boundary. This came about as a result of the Louisiana legislature's concern for the boundary location in the context of other coastal activities occurring in the state, and the upcoming revision of the Louisiana Comprehensive Master Plan for a Sustainable Coast to be prepared for 2012. The legislature's concerns were to be addressed through a study requested by Louisiana Senate Concurrent Resolution No. 60 (SCR 60). This resolution requested that a science based study, which also considered socioeconomic factors, be conducted to assess the capacity of the coastal zone management program to address the state's needs for upcoming years. Recommendations for an expanded coastal zone and an adjacent intergovernmental coordination area were developed and presented to the Louisiana Coastal Protection and Restoration Authority in August 2010 with final adoption of recommendations anticipated by December 2010 and necessary statutory changes completed by June 2011.

OCM staff gathered background material pertaining to the original designation of the Louisiana Coastal Zone, developed a Scope of Services for contractual support for the project, made contacts within state and federal agencies to seek existing spatial data sets germane to the project, and established a public/stakeholder participation mechanism for the project. This strategy designs and implements an updated coastal zone for Louisiana which is based on science and socioeconomic factors associated with coastal processes and human activities associated with the coast. Data sets were compiled and analyses including: base industry exporting economic goods and services, coastal habitats, coastal wildlife, coastal hydrology and geomorphology and geological composition. As such, this strategy in some measure touches upon all coastal management area issues and needs involved in the LCRP. Public and stakeholder meetings were held across the coast in New Orleans, Houma, and Lake Charles to seek broader public input. A Stakeholder Advisory Group (SAG) was established to provide ongoing input to OCM during the project. The SAG met to discuss data to be used in the project and possible analytical methodology to be used, respectively.

The next phases entailed OCM staff working closely with attorney and law students analyzing the legal framework of the Coastal Zone Management Act (CZMA) and the State and Local Coastal Resources Management Act (SLCRMA) as they pertain to criteria for establishing a state coastal zone boundary. The analysis also included a consideration of various policy options which could be integrated into a tiered approach to a revised coastal zone boundary. Scenarios are being considered and geographic alternatives are being proposed which include options for tiered management approaches to implementing various revisions recommended to update the coastal zone boundary.

We are currently finalizing data interpretation and report preparation. Because early development of funding delayed the full start-up of the project, it could not be completed in time to complete the report and develop recommendations for the legislature as requested in the bill passed by the Louisiana Legislature SCR 60. Therefore, OCM submitted an interim status report to the CPRA on March 10, 2010 which was conveyed to the legislature. The interim

report advised that the final report would be submitted by September 30, 2010. The recommended boundary changes will be submitted to the regular session for 2011 and OCM will work on any needed rule changes to adopt the new boundary provisions through calendar year 2011. Implementation during the subsequent 2 years would include acquiring maps for the new area as needed, modifying electronic permit system if needed, assessing and setting up revised field areas and advising the public of changes in areas where permits are now needed.

The next task in the strategy consists of OCM working to explain the changes and address concerns raised during the legislative process. Upon passage of a statutory change in the Louisiana coastal zone boundary by the 2011 regular session of the Louisiana legislature, OCM will prepare an implementation plan which will consist of a program to roll out the updated boundary to the public, identify internal changes in process and procedure that would be needed for regulatory purposes, and prepare any draft regulations that might be necessary for implementation of regulatory changes needed due to new legislation. The OCM will also prepare and submit to NOAA a program change request to amend the coastal zone boundary and any related changes included in the new statute.

STRATEGY: COASTAL HAZARDS: RESILIENCY: BEST PRACTICES MANUAL AND IMPLEMENTATION POLICY

In May of 2008, utilizing 309 funding, the Office of Coastal Management took part in the development of the Louisiana Coastal Hazard Mitigation Guidebook. The impetus for the guidebook came in part from the Louisiana State University Presidents' Forum on Meeting Coastal Challenges series held at LSU. During the forums, parish and state officials expressed frustration with the lack of planning tools they could use to bring about safer development in the state.

The strategies put forth in the guidebook reduce, but do not eliminate, the risks from coastal natural hazards. The guidebook brings together tools, techniques and policies that are available or could be developed by local governments to help mitigate natural hazards. The guidebook demonstrates how communities can adopt a flexible approach to hazard planning, allowing them to accommodate a wide range of attitudes toward restrictions on the use of property to mitigate hazards. Landowners, developers and architects can use it to design stronger and safer projects with increased value because of their increased safety and resiliency to hazards. The guidebook advocates sensible development as a method to mitigate natural hazards.

The guidebook can be found on the Louisiana Department of Natural Resource's webpage at the following web address:

<http://dnr.louisiana.gov/assets/docs/coastal/interagencyaff/LaCoastalHazMitGuidebook.pdf>.

No program change has resulted from this strategy as yet. Implementation strategies to be developed are discussed in the Coastal Hazards: Resiliency: Best Practices Manual and Implementation Policy section of this report.

WETLANDS ASSESSMENT

III. Wetlands

Section 309 Enhancement Objective

- I. Develop and enhance the enforcement of the state regulatory program through cooperative and coordinated mechanisms with other federal, state and local government agencies.
- II. Develop a map and data for submerged aquatic vegetation and/or critical shallow open water habitat in coastal Louisiana.
- III. Protect and preserve existing levels of wetlands, as measured by acreage and functions, from direct, indirect and cumulative adverse impacts, by developing or improving regulatory programs.
- IV. Increase acres and associated functions (e.g., fish and wildlife habitat, water quality protection, flood protection) of restored wetlands, including restoration and monitoring of habitat for threatened and endangered species.

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

Louisiana’s coastal zone and wetland resources are linked closely with cultural and economic development. Great strides must be taken in resource management to allow for continued multiple use. The loss of habitat will compromise benefits derived from them for future generations.

1. Please indicate the extent, status, and trends of wetlands in the coastal zone using the following table:

Wetlands type	Estimated historic extent (acres)	Current extent (acres)	Trends in acres lost since 2006 (Net acres gained & lost)	Acres gained through voluntary mechanisms since 2006	Acres gained through mitigation since 2006	Year and source(s) of Data
Tidal (Great Lakes) all vegetated types	Estimates from 1956 indicate the extent of coastal wetlands to be approximately 36,390 sq km	As of 2000, the extent of coastal wetlands is estimated to be 33,458 sq km	More than 200,000 acres	<50*	8,083.13 acres were created and protected	2007 <i>Louisiana’s Comprehensive Master Plan for a Sustainable Coast</i>

Tidal (Great Lakes) non-vegetated		unknown				2007 **
Non-tidal/freshwater		Fresh/Intermediate: 2,006,712 Acres				2007 **
Other (please specify)		Saline/Brackish: 1,612,121 Acres Swamp/Bottom Land Forest 1,807,275 Acres				2007 **

* estimate from OCM's data records

** Source: USGS, Biological Resources Division's, and NWRC, Lafayette, Louisiana, US 2007, and John Barras, et al 2000

2. If information is not available to fill in the above table, provide a qualitative description of information requested, including wetlands status and trends, based on the best available information.

Wetland loss in Louisiana accounts for 80-90% of the coastal marsh loss occurring in the Nation (USACE 2004). The Louisiana wetland ecosystem ranges from natural levee, beach and Chenier ridges to bottomland hardwood and fresh swamp forests and freshwater, intermediate, brackish and saline marshes. These wetlands provide critical habitat for migrating birds, nesting habitat for endangered bird species, and provide a buffer from hurricanes and other storms.

Analysis of current aquatic resource loss trends in Louisiana is well documented. Since 1930, water has consumed more than 1,900 square miles of coastal wetlands. As documented by USGS and in *Louisiana's Comprehensive Master Plan for a Sustainable Coast*, the State of Louisiana's coast continues to lose land at an estimated rate of 25 to 35 square miles or 15,300 acres each year. The net reduction of land from 2004 to 2008 has been estimated by the United State Geological Survey (USGS) to be approximately 209,000 acres.

3. Provide a brief explanation for trends.

The primary reason for this recent aquatic resource loss can mainly be attributed to a dramatic increase in severe tropical activities that have impacted the Louisiana Coast over the past five (5) years. As stated in the State's *Master Plan* document, Hurricanes Katrina and Rita, alone, were responsible for the destruction and loss of approximately 200 square miles of marsh in coastal Louisiana.

4. Identify ongoing or planned efforts to develop monitoring programs or quantitative measures for this enhancement area.

OCM will continue to identify, quantify and map (through GIS and other database management tools) critical coastal wetland habitats. An effort will be made to classify the data by wetland types.

5. Use the following table to characterize direct and indirect threats to coastal wetlands, both natural and man-made. If necessary, additional narrative can be provided below to describe threats.

Type of threat	Severity of impacts (H,M,L)	Geographic scope of impacts (extensive or limited)	Irreversibility (H,M,L)
Development/Fill	High	extensive	High
Alteration of hydrology	High	extensive	High
Erosion	High	extensive	High
Pollution	Medium	extensive	Low
Channelization	High	extensive	Medium
Nuisance or exotic species	Medium	extensive	High
Freshwater input	Low	limited	Low
Sea level rise/Great Lake level change	High	extensive	High
Other (please specify)			

6. (CM) Indicate whether the Coastal Management Program (CMP) has a mapped inventory of the following habitat types in the coastal zone and the approximate time since it was developed or significantly updated

Habitat type	CMP has mapped inventory (Y or N)	Date completed or substantially updated
Tidal (Great Lakes) Wetlands	Y	1988
Beach and Dune	Y	1988
Nearshore	N	
Other (please specify)	N/A	

7. (CM) Use the table below to report information related coastal habitat restoration and protection. The purpose of this contextual measure is to describe trends in the restoration and protection of coastal habitat conducted by the State using non-CZM funds or non Coastal and Estuarine Land Conservation Program (CELCP) funds. If data is not available to report for this contextual measure, please describe below actions the CMP is taking to develop a mechanism to collect the requested data.

Contextual measure	Cumulative acres for 2004-2010
Number of acres of coastal habitat restored using non-CZM or non-Coastal and Estuarine Land Conservation Program (CELCP) funds	*29,550
Number of acres of coastal habitat protected through acquisition or easement using non-CZM or non-CELCP funds	**0

* enhanced/created/benefited/restored wetlands - Fiscal Year 2011 Annual Plan, Integrated Ecosystem Restoration and Hurricane Protection in Coastal Louisiana for projects built in the 2004 – 2010 period. The data does not include purchased acres for protection. Protected wetlands in the report’s context means wetlands benefited by an adjacent wetlands creation project.

** Louisiana Department of Wildlife and Fisheries

Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

1. For each of the wetland management categories below, indicate if the approach is employed by the state or territory and if significant changes have occurred since the last assessment:

Management categories	Employed by state/territory (Y or N)	Significant changes since last assessment (Y or N)
Wetland regulatory program implementation, policies, and standards	Y	Y
Wetland protection policies and standards	Y	N
Wetland assessment methodologies (health, function, extent)	Y	N
Wetland restoration or enhancement programs	Y	N
Wetland policies related public infrastructure funding	Y	N
Wetland mitigation programs and policies	Y	Y
Wetland creation programs and policies	Y	N
Wetland acquisition programs	Y	N
Wetland mapping, GIS, and tracking systems	Y	N
Special Area Management Plans	Y	N
Wetland research and monitoring	Y	N

Wetland education and outreach	Y	N
Other (please specify)		

2. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.

a) Characterize significant changes since the last assessment;

Rules for Beneficial Use of Dredged Material to create wetlands went into effect in October 2009. The rulemaking process was undertaken in late 2008 and 2009. The changes include four options for permit applicants involved in coastal projects that include dredging – implementing a project that makes beneficial use of the dredged material to create wetlands, providing for the use of the dredged material on an approved coastal restoration project, using dredged material at another location that creates the same amount of beneficial use, or making a voluntary contribution to the Coastal Resources Trust fund, based on the amount of material dredged.

b) Specify if it was a 309 or other CZM-driven change (specify funding source) or if it was driven by non-CZM efforts; and

This was a CZM funded effort utilizing state funding and Federal 309 funding.

c) Characterize the outcomes and effectiveness of the changes.

As the State has only recently implemented this new rule, to date the State has only received one contribution in-lieu of implementing a beneficial use to create wetlands project.

(CM) Indicate whether the CMP has a habitat restoration plan for the following coastal habitats and the approximate time since the plan was developed or significantly updated.

Habitat type	*CMP has a restoration plan (Y or N)	Date completed or substantially updated
Tidal (Great Lake) Wetlands	N	
Beach and Dune	N	
Nearshore	N	
Other (please specify)		

Habitat restoration is under the purview of the Office of Coastal Protection and Restoration. OCPH was a joint office with Coastal Management under the Louisiana Department of Natural Resources until they became a separate Louisiana state office in 2009 and as such are no longer associated with the LCRP.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could

be addressed through the Coastal Management Program and partners (not limited to those items to be addressed through the Section 309 Strategy). If necessary, additional narrative can be provided below to describe major gaps or needs.

Gap or need description	Select type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H, M, L)
The rapidly changing landscape of coastal Louisiana suffers from extensive salt water intrusion, and formerly fresh water marsh is transitioning to more saline marsh types. Further, the wetlands systems of south Louisiana are part of an extensive estuarine system with broader areas than that now defined by the current coastal zone. There is a need for an unbiased and science-based assessment of the management needs of the state for purposes of an effective coastal management program.	Regulatory	H
Revised rules and regulations for mitigation	Regulatory	H
Map and data for submerged aquatic vegetation and/or critical shallow open water habitat in coastal Louisiana.	Mapping/GIS/Data/Regulatory	H
Assessment of water management systems, regimes, structures and features in coastal Louisiana	Mapping/GIS/Data/Regulatory	H
Assessment of federal consistency implications of new beneficial use regulations	Regulatory/Policy	M

Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

High ___x___
Medium ___
Low ___

Briefly explain the level of priority given for this enhancement area.

Wetland loss is critical in Louisiana which possesses the highest erosion rates along its coast in the world. This along with Louisiana’s high relative sea level rise rates, low slopping

topography and development in unprotected areas makes wetland loss and coastal hazards the highest current priority concern areas for Louisiana.

2. Will the CMP develop one or more strategies for this enhancement area?

Yes x
No

Briefly explain why a strategy will or will not be developed for this enhancement area.

Wetland loss is identified at a high risk level in the current 309 assessment. The SAV mapping effort will memorialize known locations of historical and on-the-ground locations of SAV and aid OCM in the permit processing of development activities in wetlands. New permitting procedures to include SAV mitigation provisions will be developed.

There is a critical need to update and revise OCM's outdated current rules for mitigation. The rules do not reflect actual costs to construct wetlands. The current regulations were implemented over 15 years ago, the rules are outdated and don't meet the needs and requirements of State policy, and furthermore, do not complement recently revised federal rules for mitigation. A revision to the State's formal position with respect to priorities and preference for habitat mitigation is a critical need for OCM's regulatory program. Implementation of new state mitigation rules by OCM will result in mitigation that is sustainable, properly located and will work in concert with integrated coastal protection and coastal restoration efforts.

Much of the Louisiana coastal wetland area is subject to water management programs. For the OCM to make more informed decisions on individual aspects of these systems, an understanding the overall systems needs to be developed. A mapping project will document federal, state and local water management projects and each project's scope and objective. The water control features, levees, culverts, gates, etc will be identified and locations mapped. For the Office of Coastal Management to make more informed decisions on individual aspects of these systems, an understanding the overall systems needs to be developed. Currently the Office of Coastal Management, DNR, has little input on the management strategies of the federal and local agencies in control of these systems. A desire of the Department is to be represented and provide leadership in the management of these ecosystems.

Implementation of an expanded coastal zone for Louisiana would bring all of the management tools of the SLCRMA to a broad area of wetlands not regarded as significantly at risk when the program was established in 1980. These areas, previously not normally subject to tidal influence and having freshwater vegetation, have changed over the past 30 years. Land loss due to subsidence, erosion and sea level rise now makes it imperative to exert additional management to these low laying areas that are contiguous to the current coastal zone. And, if current sea level rise projections for Louisiana are correct, some lands now too high to support wetlands vegetation will turn into wetlands within 50 to 100 years. Management of these potentially transitional areas will be important in maintaining coastal wetlands resources and the productivity supported therein.

Millions of cubic yards of sediment that could be restoring vanishing wetlands are lost to the Louisiana coastal system every year from non-beneficial disposal. The largest component of that wasted material is through non-beneficial use of dredged material conducted by federal agencies in carrying out their mandated missions. A beneficial use strategy for consistency determinations will increase the performance of our beneficial use program and result in an increase in created and restored wetland habitat.

Strategies will be developed for this enhancement area in order to help OCM in its mission to preserve, create, enhance and restore wetlands and to mitigate impacts to wetlands. These strategies are:

STRATEGY TITLE: New Mitigation Regulations for Unavoidable Impacts Due To Permitted Activities in Coastal Louisiana

STRATEGY TITLE: Implementing an Updated Inland Boundary for Louisiana's Coastal Zone

STRATEGY TITLE: Implementation of Previously Revised Federal Consistency Procedures to Improve Beneficial Use of Dredged Material

These strategies are presented in full detail further in this report.

COASTAL HAZARDS ASSESSMENT

Section 309 Enhancement Objective

Prevent or significantly reduce threats to life and property by eliminating development and redevelopment in high-hazard areas, managing development in other hazard areas, and anticipating and managing the effects of potential sea level rise and Great Lakes level change.

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

1. Characterize the level of risk in the coastal zone from the following coastal hazards:

(Risk is defined as: “the estimated impact that a hazard would have on people, services, facilities and structures in a community; the likelihood of a hazard event resulting in an adverse condition that causes injury or damage.” *Understanding Your Risks: Identifying Hazards and Estimating Losses. FEMA 386-2. August 2001*)

Type of hazard	General level of risk (H,M,L)	Geographic Scope of Risk (Coast-wide, Sub-region)
Flooding	H	Coast Wide
Coastal storms, including associated storm surge	H	Coast Wide
Geological hazards (e.g., tsunamis, earthquakes)	L	Coast Wide
Shoreline erosion (including bluff and dune erosion)	H	Coast Wide
Sea level rise and other climate change impacts	H	Coast Wide
Great Lake level change and other climate change impacts	N/A	N/A
Land subsidence	H	Coast Wide
Other (please specify)	N/A	N/A

2. For hazards identified as a high level of risk, please explain why it is considered a high level risk. For example, has a risk assessment been conducted, either through the State or Territory Hazard Mitigation Plan or elsewhere?

Louisiana has suffered significant loss of life, injury and property damage from natural hazards. The State has the sixth highest number of declared disasters in the United States, with 56 Presidential Disaster Declarations since 1965 (State of Louisiana Hazard Mitigation Strategy 2/22/10). Coastal storms, floods, shoreline erosion, storm surge and subsidence have challenged Louisiana to develop ways to reduce future damages from hazards. In 2003, with the support of

FEMA, the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) developed the State of Louisiana Hazard Profiles. The document was updated in 2005 and again in 2008. As required by Federal regulations under the Disaster Mitigation Act of 2000, the Profiles contain an overview of the natural hazards that can affect Louisiana. The Profiles outline information on the likelihood of occurrence, possible magnitude or intensity, areas of the State that can be affected, and conditions that influence the manifestation of the hazard.

The state is updating its Louisiana Hazard Mitigation Plan. Flooding, coastal storms, shoreline erosion, storm surge and subsidence have all been identified as hazards in the Plan. In addition, local parish governments are also developing FEMA approved parish and municipal hazard mitigation plans that identify these potential hazards.

Louisiana's coast is unique among the coasts in the United States. Much of Louisiana's coastline lies in the Deltaic Plain east of Vermilion Bay and is comprised of wetland that lacks a distinct coastline but instead gradually transitions from freshwater wetland systems to brackish water wetlands, then to saltwater wetlands, and eventually to open water. This region is rimmed by a fragile and intermittent necklace of barrier islands. As these fragile systems continue to disappear at an alarming rate the Louisiana coast is under increasing risk from coastal hazards (USGS 2004).

The Chenier plain is positioned to the west of the deltaic plain and is characterized by marsh that is segmented by long, narrow coast-parallel sand and shell ridges with marsh lands between the ridges. In the last several decades, humans have impacted the Chenier ecosystems with such activities as mining and exporting mined materials out of the Chenier Plains, livestock grazing, fence building, road building, and urbanization. Resource planners do not know the extent to which the coastal use activities detailed above affect the geomorphic integrity of these Chenier ridges and their ability to provide a natural buffer for storm surge, inland flooding, and saltwater intrusion. Louisiana is concerned about the sustainability of these ridge systems as hazard protection devices, and about their increasing vulnerability to degradation from anthropogenic activities.

The risk of a hurricane striking the coast of Louisiana remains high and a constant threat each hurricane season. Hurricanes and tropical storms have proven to be Louisiana's costliest and deadliest natural phenomenon. At least three storms have produced 200 or more deaths. An unnamed storm in 1893 cost roughly 2,000 lives (State of Louisiana Hazard Mitigation Strategy 2/22/10). Louisiana's ecological, recreational, and cultural resources are at a high risk of loss and devastation. The reality of that statement was made clear when Hurricanes Katrina and Rita hit the Louisiana Coast in 2005. Hurricanes Gustav and Ike received presidential disaster declarations in 2008. As Louisiana's wetlands disappear, and as inland marshes/bays turn to more open water, oil and gas infrastructure along the coast becomes exposed to open Gulf conditions. Wells and platforms that were once grounded by marsh are now in open water and susceptible to damage and to potential major oil or other hazardous material incidents. The Mississippi River deltaic plain is also subject to the highest rate of relative sea level rise (3ft per century) of any region in the Nation in large part due to rapid geologic subsidence. The rising sea level and subsidence accelerate coastal erosion and wetland loss (USGS 2004).

Flooding along the Mississippi and Atchafalaya rivers systems often results from upstream run off. Major flooding on these waterways can seriously affect river and barge traffic, especially along the Mississippi River where cargo handling at the Port of New Orleans is a major Louisiana industry. Frequent flooding; whether overbank, backwater, tidal or from any other source, is a challenging concern in areas of growth and development. Another major focus in Louisiana is repetitive loss properties. A repetitive loss property is defined as any property that is currently insured under the National Flood Insurance Program that has had two or more claims greater than \$1,000 paid within any ten year period since 1978. Every Louisiana coastal parish has been given Advisory Base Flood Elevations (ABFE) since hurricanes Katrina and Rita. ABFEs are updated 100 year flood elevations released by FEMA for affected areas. The extent of the mapped floodplain, as well as the expected level of the base flood, has increased in several areas of these parishes (State of Louisiana Hazard Mitigation Plan Update, 2010).

Statewide, efforts to reverse land loss due to erosion, subsidence, coastal storms, flooding and sea level rise are guided by the Coastal Protection and Restoration Authority's Integrated Ecosystem Restoration and Hurricane Protection: Louisiana's Comprehensive Master Plan for a Sustainable Coast, which was approved by the Louisiana Legislature in 2007 as the official strategy document for restoration of land loss in Louisiana. It was incorporated into the State of Louisiana's Hazard Mitigation Strategy in 2007.

In 2003, the Louisiana Department of Emergency Preparedness became the Louisiana Office of Homeland Security and Emergency Preparedness, reflecting the additional responsibilities to the State of Louisiana and its citizens. Since the tragedy of September 11, 2001, the nation has become more vigilant in protecting itself from a terrorist attack. Louisiana poses a high risk from potential terrorism with its tremendous petro-chemical industry, maritime/riverine transportation system, 14 major ports, and the Louisiana Offshore Oil Platform (LOOP).

3. If the level of risk or state of knowledge of risk for any of these hazards has changed since the last assessment, please explain.

The level of risk remains high for flooding, coastal storms, shoreline erosion, sea level rise and subsidence as it was for the previous assessment. Our state of knowledge of the risks continues to develop and be refined as new data is acquired and synthesized; for example, such things as increased availability of remotely sensed data such as LIDAR coverage increases our state of coastal knowledge. In addition, our information capabilities increase with improved modeling to produce more accurate topographical information.

4. Identify any ongoing or planned efforts to develop quantitative measures of risk for these hazards.

In 2003 GOHSEP developed the State of Louisiana Hazard Profiles. The Profiles contain a rundown of the natural hazards that affect Louisiana. The Profiles also outline information on the likelihood of occurrence, possible magnitude or intensity, areas of the State that can be affected, and circumstances that influence the appearance of the hazard. Flooding, coastal storms, shoreline erosion, storm surge and subsidence have all been identified as hazards in the

plan. In addition, local parish governments have also developed FEMA approved parish and municipal hazard mitigation plans that identify these potential hazards.

5. **(CM)** Use the table below to identify the number of communities in the coastal zone that have a mapped inventory of areas affected by the following coastal hazards. If data is not available to report for this contextual measure, please describe below actions the CMP is taking to develop a mechanism to collect the requested data.

Type of hazard	Number of communities that have a mapped inventory	Date completed or substantially updated
Flooding	All 19 Coastal Parishes	2010
Storm surge	All 19 Coastal Parishes	2010
Geological hazards (including Earthquakes, tsunamis)	Statewide	2010
Shoreline erosion (including bluff and dune erosion)	Five: Jefferson, Lafourche, Plaquemines, St. Charles, and St. Mary	2010
Sea level rise	Unknown	Unknown
Great lake level fluctuation	N/A	N/A
Land subsidence	All 19 Coastal Parishes	2010
Other (please specify)		

All data from State of Louisiana Hazard Mitigation Plan Update Appendix 2010 and/or OCM Conducted Survey of Parishes

Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

1. For each of the management categories below, indicate if the approach is employed by the state or territory and if significant changes have occurred since the last assessment:

Management categories	Employed by state/territory (Y or N)	Significant changes since last assessment (Y or N)
Building setbacks/ restrictions	N	N
Methodologies for determining setbacks	N	N
Repair/rebuilding restrictions	Y	Y
Restriction of hard shoreline protection structures	N	N
Promotion of alternative shoreline stabilization methodologies	Y	N

Management categories	Employed by state/territory (Y or N)	Significant changes since last assessment (Y or N)
Renovation of shoreline protection structures	N	N
Beach/dune protection (other than setbacks)	Y	N
Permit compliance	Y	N
Sediment management plans	Y	N
Repetitive flood loss policies, (e.g., relocation, buyouts)	N	N
Local hazards mitigation planning	Y	Y
Local post-disaster redevelopment plans	Y	N
Real estate sales disclosure requirements	Y	N
Restrictions on publicly funded infrastructure	N	N
Climate change planning and adaptation strategies	N	N
Special Area Management Plans	Y	N
Hazards research and monitoring	Y	N
Hazards education and outreach	Y	Y
Other (please specify) Chenier Research and Protection	Y	Y

2. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.
 - a) Characterize significant changes since the last assessment;
 - b) Specify if it was a 309 or other CZM-driven change (specify funding source) or if it was driven by non-CZM efforts; and
 - c) Characterize the outcomes and effectiveness of the changes.

State adoption of superior building codes:

- (a) In December of 2005 - a law was enacted that called for the state to adopt the International Building Code (IBC), International Existing Buildings Code (IEBC), International Residential Code (IRC), International Mechanical Code (IMC), and the International Fuel Gas Code (IFGC). The law applies to buildings rebuilt in the wake of Hurricanes Katrina and Rita, and to all buildings built or rebuilt statewide starting in 2007. Under the legislation, the 11 parishes hit hardest by the hurricanes must put the new code into effect in 30 days if those parishes already have inspectors. If they do not, they have 90 days to begin enforcement. The bill also establishes a 19-member council to oversee enforcement of the codes by local governments.
- (b) This was a non CZM-driven change.
- (c) OCM is confident these changes are having a significant impact resulting in more resilient rebuilding in Louisiana.

Louisiana Coastal Hazard Mitigation Guidebook:

(a) In May of 2008, utilizing 309 funding, the Office of Coastal Management took part in the development of the Louisiana Coastal Hazard Mitigation Guidebook. The impetus for the guidebook came in part from the Louisiana State University Presidents' Forum on Meeting Coastal Challenges series held at LSU. During the forums, parish and state officials expressed frustration with the lack of planning tools they could use to bring about safer development in the state.

The strategies put forth in the guidebook reduce, but do not eliminate, the risks from coastal natural hazards. The guidebook brings together tools, techniques and policies that are available or could be developed by local governments to help mitigate natural hazards. The guidebook demonstrates how communities can adopt a flexible approach to hazard planning, allowing them to accommodate a wide range of attitudes toward restrictions on the use of property to mitigate hazards. Landowners, developers and architects can use it to design stronger and safer projects with increased value because of their increased safety and resiliency to hazards. The guidebook advocates sensible development as a method to mitigate natural hazards.

The guidebook can be found on the Louisiana Department of Natural Resource's at the following web address:

<http://dnr.louisiana.gov/assets/docs/coastal/interagencyaff/LaCoastalHazMitGuidebook.pdf>.

Guidebook workshop:

The Office of Coastal Management and Louisiana Sea Grant partnered to host three information workshops at three strategic locations throughout coastal Louisiana to present the guidebook information. The guidebook content was available at the workshops in both hard copy and CD.

(b) This was a 309 funded change.

(c) The Office of Coastal Management is encouraged by the success of our coastal hazard mitigation efforts and proposes to continue to use 309 and other funding mechanisms to expand our efforts. Please see our strategies section.

Chenier evaluation:

(a) The Louisiana Department of Natural Resources (LDNR) and the Cameron Parish Local Coastal Management Program became concerned when it recognized that there were insufficient enforceable legal polices available to recommend expanded permit review, conditional approval or outright denial of some of the possibly destructive practices being permitted on the chenier ridges. In response to these deficiencies the LDNR's Office of Coastal Management developed a multi-tasked Section 309 assessment and strategy designed to scientifically assess the situation and offer remediation potential.

The first portion of the 309 strategy was an assessment of current conditions and a determination of the appropriate coastal activities that should be allowed on the chenier ridges via an examination of anthropogenic activities currently occurring on the ridges, e.g. grazing, forestry, farming, roads, urbanization, oil and gas exploration and production, and mining. Toward this end the LDNR commissioned a study to conduct an in-depth assessment of the

geomorphic formation, existing conditions, ecological, biological and geomorphological integrity and the ridges' ability to continue to support various anthropogenic activities. The next step in the assessment and strategy was an outreach effort to parish governments in the coastal prairie plain. The LCRP presented information from the study to the Cameron Parish Police Jury in May of last year. An offer was made to Vermilion Parish to present the study; however, the parish did not respond in the affirmative.

In addition, an analysis of the legal authorities of the state's coastal program to regulate for consistency, at a state level, those activities which may affect cheniers but are currently delegated to the local parish programs under the LCRP's enforceable rules and regulations was undertaken. This study is on-going.

Some of the report's recommendations were that:

- The LCRP should consider formally designating cheniers as natural biologically valuable areas or protective coastal features and should adopt more specific guidelines for their protection.
- Commercial sand mining operations and large-scale excavations on cheniers and natural ridges should be discouraged.
- Comprehensive justification and needs/alternatives analysis that clearly demonstrate the proposed action is the least-damaging, feasible practical alternative should be required as part of the permitting process for these proposed coastal uses.
- The LCRP should develop outreach programs outlining the importance of cheniers and, more importantly, the rationale for their preservation and protection

The study can be found on the Louisiana Department of Natural Resource's webpage: at the following web address:

<http://dnr.louisiana.gov/assets/docs/coastal/227-009-001NG-Chenier%20Rpt-DNR.pdf>.

The Office of Coastal Management has identified that beyond the first tier of regulation provided by local governing authorities, there are in place two specific provisions in Louisiana state law providing for enhanced regulation of cheniers and coastal ridges by the Office of Coastal Management, and there is also an implied method of enhanced regulation of these areas by the Office of Coastal Management within existing law. Additionally there is a mechanism for state purchase of the areas for which protection is sought. And of course, new legislation is always an option to provide enhanced regulation of cheniers and coastal ridges.

While state legislative change might provide the most comprehensive protection, local enforcement and legislation are the fastest and most direct means to provide some protection for cheniers, and each of the three parishes that have cheniers could enact ordinances that would have the effect of protecting cheniers from deforestation and mining. There are available options for enhanced regulation of cheniers and coastal ridges with rulemaking or even just public notice without new legislation. It appears from the study results that OCM should focus its efforts on the careful regulation of any activity that would involve clearing of chenier forest vegetation, and

any activity that would result in new areas of open water. While it would be easy to bar all activity that would disturb the soil or vegetation on cheniers, absolute protection of the areas would not likely survive a legal challenge. The Louisiana constitution requires that the conservation and protection of natural resources of the state must be consistent with the welfare of the people, in other words, a balanced approach is required. Whether the protection of cheniers is made by encouraging local government to provide more careful review of applications for uses affecting cheniers, or if the secretary takes steps to provide protection using existing statutory authority, or if the legislature provides for additional regulatory authority over uses affecting cheniers, the exercise of this authority would still require a balancing of competing interests with regard to regulation of uses on cheniers.

(b) This was a 309 funded change.

(c) The Office of Coastal Management feels confident these changes will be effective when fully implemented and intends to utilize 309 and other funding mechanisms to continue to pursue our efforts to ascertain the best options for protecting these hazard mitigating resources. Please see our strategies section of this enhancement area.

3. **(CM)** Use the appropriate table below to report the number of communities in the coastal zone that use setbacks, buffers, or land use policies to direct development away from areas vulnerable to coastal hazards. If data is not available to report for this contextual measure, please describe below actions the CMP is taking to develop a mechanism to collect the requested data.

For CMPs that use numerically based setback or buffers to direct development away from hazardous areas report the following:

Contextual measure	Number of communities
Number of communities in the coastal zone required by state law or policy to implement setbacks, buffers, or other land use policies to direct develop away from hazardous areas.	None
Number of communities in the coastal zone that have setback, buffer, or other land use policies to direct develop away from hazardous areas that are more stringent than state mandated standards or that have policies where no state standards exist.	The ten local coastal management programs have environmental management units that designated certain areas more suitable for development; however they are not a mandated standard beyond the coastal use guideline requirements of the state.

For CMPs that do not use state-established numerical setbacks or buffers to direct development away from hazardous areas, report the following:

Contextual measure	Number of communities
Number of communities in the coastal zone that are required to develop and implement land use policies to direct development away from hazardous areas that are approved by the state through local comprehensive management plans.	None
Number of communities that have approved state comprehensive management plans that contain land use policies to direct development away from hazardous areas.	The ten parishes that have programs included in the LCRP have goals polices and objectives that consider directing development away from hazardous areas, however, they are not comprehensive management plans and are no more stringent than the state coastal use guidelines.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the CMP and partners (not limited to those items to be addressed through the Section 309 Strategy). If necessary, additional narrative can be provided below to describe major gaps or needs.

Gap or need description	Type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H,M,L)
Coastal Resiliency and Hazard Mitigation - guidelines, procedures and policy documents	Policy, training, capacity, communication and outreach	H
Sea Level Rise - visualization/mapping tool	Data, regulatory, training	M
Updated Coastal Zone Boundary	Regulatory	H
Chenier Plans - Assessment of planning and policy options available to the state and parishes	Regulatory	M

Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

High X

Medium _____
Low _____

Briefly explain the level of priority given for this enhancement area.

The two major hurricanes of 2005 severely impacted most of coastal Louisiana and devastated much of coastal Louisiana. Since this time the state has redoubled its effort at coastal hazard mitigation and protection. Rebuilding from these storms had not completed when two hurricanes, Gustav and Ike, in 2008 again inflicted serious damage on the state. The state continues to experience significant effects from flooding, coastal storms, sea level rise, subsidence and erosion.

2. Will the CMP develop one or more strategies for this enhancement area?

Yes X _____
No _____

Briefly explain why a strategy will or will not be developed for this enhancement area.

Flooding, coastal storm surge, shoreline erosion, sea level rise and land subsidence have all been identified at high risk level in this 309 assessment portion of the 2011-2015 plan. Improved coastal resiliency and hazard mitigation guidelines, procedures and policy documents have also been identified as priority needs. The increasing number and intensity of coastal storms, and other natural hazards are putting more people and property at risk along Louisiana's coast with grave implications for human safety and the economic and environmental health of coastal areas. It is crucial for residents of coastal communities to appreciate these risks and learn what they can do both to reduce their vulnerability and to respond quickly and effectively when destructive events occur. In addition, the chenier plain serves as the first line of defense from storm surge of the southwestern Louisiana coastal zone. A need has been identified to study the direct, cumulative and secondary impacts of allowed anthropogenic activities on these resources and develop polices and/or procedures to try and protect their integrity.

Currently there is not a complete oil and gas platform location map or data set. The issue of mapping existing and future oil and gas infrastructure as potential coastal hazards is a paramount one. This data set will be critical in mapping the locations of the large known coastal hazards. There is no current map, hardcopy or digital, collectively of these oil and gas platform locations. As an agency regulating activities in the coastal zone, OCM recognizes the need for a database consisting of tools than can aid regulators and planners in making informed decisions regarding potential coastal hazards.

Implementation of a revised inland coastal zone boundary for Louisiana will be significant for management of resiliency and hazards mitigation. In the past five years, three major hurricanes have struck coastal Louisiana with effects occurring beyond the current inland boundary of the state's coastal zone. Because the revised inland boundary adopted as a result of the previous §309 Assessment and Strategy for a science based

evaluation of the coastal zone inland boundary factored in the latest LIDAR elevation data and NOAA SLOSH models, implementation of the expanded coastal zone will enhance the capacity of the SLCRMA to manage resiliency and hazards throughout a broader “at risk” area. Further, the revisions to the state’s Comprehensive Master Plan for a Sustainable Coast, now being updated for 2012 can include an expanded coastal zone.

The Office of Coastal Management will continue to develop both the coastal hazard mitigation and the chenier protection strategies. These strategies are:

STRATEGY TITLE: Coastal Hazards: Resiliency and Sea Level Rise: Best Practices Manual, New Procedures for Assisting Local Programs:

STRATEGY TITLE: Strategy Title: Implementing an Updated Inland Boundary for Louisiana’s Coastal Zone

These strategies are presented in full detail further in this report.

Final

PUBLIC ACCESS ASSESSMENT

Section 309 Enhancement Objective

Attain increased opportunities for public access, taking into account current and future public access needs, to coastal areas of recreational, historical, aesthetic, ecological, or cultural value.

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

- a. Characterize threats and conflicts to creating and maintaining public access in the coastal zone:

Type of threat or conflict causing loss of access	Degree of threat (H,M,L)	Describe trends or provide other statistics to characterize the threat and impact on access	Type(s) of access affected
Private residential development (including conversion of public facilities to private)	L	None	None
Non-water dependent commercial/industrial uses of the waterfront (existing or conversion)	L	None	None
Erosion	H	Wave action	Fishing points and boat launches
Sea level rise/ Great Lake level change	M	Sea Level Rise/subsidence	Access canals
Natural disasters	H	Hurricanes	Road ways and canals
National security	H	Increased threats of terrorism	Boat launches, marinas, access canals.
Encroachment on public land	L	None	None
Other		None	None

2. Are there new issues emerging in your state that are starting to affect public access or seem to have the potential to do so in the future?

There are no new issues affecting public access at this time.

3. **(CM)** Use the table below to report the percent of the public that feels they have adequate access to the coast for recreation purposes, including the following. If data is not available to report for this contextual measure, please describe below actions the CMP is taking to develop a mechanism to collect the requested data.

Contextual measure	Survey data¹
Number of people that responded to a survey on recreational access	7
Number of people surveyed that responded that public access to the coast for recreation is adequate or better.	6
What type of survey was conducted (i.e. phone, mail, personal interview, etc.)?	Email survey
What was the geographic coverage of the survey?	Louisiana Coastal Zone
In what year was the survey conducted?	2010

1. OCM will explore better survey strategies for the next period

4. Briefly characterize the demand for coastal public access within the coastal zone, and the process for periodically assessing public demand.

Louisiana has long been referred to as a Sportsman’s Paradise. Louisiana’s coastal zone provides a variety of recreational opportunities and amenities to residents and tourists alike. Louisiana’s vast landscape, from the Gulf of Mexico, to the herbaceous wetlands, to the forested wetlands, and the upland and plains in the inland areas, provides the opportunity for outdoor activity such as hiking, biking, swimming, fishing, boating, camping, hunting, birding, and picnicking.

The major providers of opportunities for public recreation in Louisiana are parish and local governments, the Louisiana Department of Wildlife and Fisheries (LDWF); the Louisiana Office of Forestry; the Louisiana Department of Culture, Recreation and Tourism; Sabine River Authority; the United States Forest Service; the United States Army Corps of Engineers (USACE); the National Park Service; and the United States Fish and Wildlife Service (USFWS). Coastal Louisiana has 17 Wildlife Management Areas and Wildlife Refuges, seven National Wildlife Refuges, seven State Parks, and one National Park providing public access to recreational and cultural resources for locals and tourists.

A major problem which continues to plague recreational opportunity and facilities providers and users is the lack of available public access. Public access to beaches and recreational areas situated on the Gulf of Mexico currently comprise less than one percent of the entire Louisiana coastline. There are several aspects of the term “access”. This issue will be addressed relative to access and use of state owned navigable waterways, the existence of public recreational areas, and access to the beach. The most pressing need is the lack of public recreational areas situated on waterways and the coastal beach areas that already have road access. In many areas, people use the highway R-O-W to park, fish, crab, etc. Most of

these would logically need to be local or state government sponsored and maintained parks, recreational areas, piers, campgrounds, and similar facilities. For those citizens that do not have a boat, access to recreation is more limited.

Louisiana’s 2009-2014 Statewide Comprehensive Outdoor Recreation Plan (SCORP) has been prepared to help guide the development of the state’s outdoor recreation resources for the next 5 years. The SCOPR’s purpose is to identify the most significant recreational issues and needs of the state. (La. Dept. of Culture Recreation and Tourism)

5. Please use the table below to provide data on public access availability. If information is not available, provide a qualitative description based on the best available information. If data is not available to report on the contextual measures, please also describe actions the CMP is taking to develop a mechanism to collect the requested data.

Types of public access	Current number(s)	Changes since last assessment (+/-)	Cite data source
(CM) Number of acres in the coastal zone that are available for public (report both the total number of acres in the coastal zone and acres available for public access)	9,544,473 Total acres = Public access acres =	Not Available	DNR
(CM) Miles of shoreline available for public access (report both the total miles of shoreline and miles available for public access)	24,979 Total shoreline miles = Public access miles =	Not Available	DNR
Number of State/County/Local parks and number of acres	13/10,263acres	Not Available	LA State Parks Land Holdings
Number of public beach/shoreline access sites	Not Available	0	Not Available
Number of recreational boat (power or non-power) access sites	257	0	LOSCO
Number of designated scenic vistas or overlook points	Not Available	0	Not Available
Number of State or locally designated perpendicular rights-of-way (i.e. street ends, easements)	3 and multiple on Grand Isle	0	Not Available
Number of fishing access points (i.e. piers, jetties)	Not Available	Not Available	Not Available
Number and miles of coastal trails/boardwalks	Not Available	0	Not Available

Types of public access	Current number(s)	Changes since last assessment (+/-)	Cite data source
Number of dune walkovers	2 and multiple on Grand Isle	0	Not Available
Percent of access sites that are ADA compliant access	7	0	Not Available
Percent and total miles of public beaches with water quality monitoring and public closure notice programs	23.18miles 79%	NA	DHH
Average number of beach mile days closed due to water quality concerns	0	0	DHH

Louisiana Department of Health and Hospitals houses the Beach Monitoring Program that issues advisories for Louisiana beaches. Louisiana does not close its beaches to the public but will prohibit swimmers from accessing the water. During this period, Holly Beach in Cameron Parish has been closed to swimmers but still remained open to boaters. Several different state agencies have responsibility and jurisdiction for developing public recreational sites and opportunity in Louisiana. Additionally, the local governments also develop and manage recreational sites, but have no directives to report their activities. To coordinate these activities being undertaken by each of these agencies is a daunting task. This report has been done internally by OCM staff and the numbers determined from sources available to the general public. Due to Louisiana's unique marsh geological shoreline and lack of beaches, public access to these lands is difficult to acquire. Also, much of Louisiana's coast is privately owned making access limited by access agreements.

Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

1. For each of the management categories below, indicate if the approach is employed by the state or territory and if significant changes have occurred since the last assessment:

Management categories	Employed by state/territory (Y or N)	Significant changes since last assessment (Y or N)
Statutory, regulatory, or legal system changes that affect public access	Y	N
Acquisition programs or policies	Y	N
Comprehensive access management planning (including GIS data or database)	Y	N

Management categories	Employed by state/territory (Y or N)	Significant changes since last assessment (Y or N)
Operation and maintenance programs	Y	N
Alternative funding sources or techniques	Y	N
Beach water quality monitoring and pollution source identification and remediation	Y	N
Public access within waterfront redevelopment programs	Y	N
Public access education and outreach	Y	N
Other (please specify)		

2. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.
 - a) Characterize significant changes since the last assessment;
 - b) Specify if it was a 309 or other CZM-driven change (specify funding source) or if it was driven by non-CZM efforts; and
 - c) Characterize the outcomes and effectiveness of the changes.

Several different state agencies have responsibility and jurisdiction for developing public recreational sites and opportunity in Louisiana. To coordinate these activities being undertaken by each of these agencies is a daunting task and would require a significant effort that OCM does not feel is justified for this low priority category. Other state agencies' websites would include www.losco.state.la.us/, and www.dhh.louisiana.gov/.

3. Indicate if your state or territory has a printed public access guide or website. How current is the publication and/or how frequently is the website updated? Please list any regional or statewide public access guides or websites.

The State of Louisiana does not publish a Public Access Guide or keep a website listing the public access locations across the state or LCZ. The Louisiana Department of Culture, Recreation, and Tourism maintains the majority of information regarding recreational areas throughout the state. The agency produces numerous leaflets and other hardcopy materials as well as maintaining an electronic web site for information. Their website can be found at <http://www.crt.state.la.us/>.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the CMP and partners (not limited to those items to be addressed through the Section 309 Strategy). If necessary, additional narrative can be provided below to describe major gaps or needs.

Gap or need description	Type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H,M,L)
Survey on access to coastal resources	Data	L

Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

High ___
Medium ___
Low X

Briefly explain the level of priority given for this enhancement area.

Due to Louisiana’s unique marsh geological shoreline, lack of beaches, and lack of public access infrastructure such as roads, public access to these lands is sometimes difficult to acquire. Also, much of Louisiana’s coast is privately owned making access limited by access agreements. Louisiana feels there are several more relevant coastal related challenges that require more immediate attention and the commitment of state resources towards. Therefore OCM believes this issue to be addressed more appropriately at the local level. OCM will over local entities any assistance that we can to further such endeavors.

2. Will the CMP develop one or more strategies for this enhancement area?

Yes ___
No X

Briefly explain why a strategy will or will not be developed for this enhancement area.

In the past, construction, operation, and maintenance of public access locations have not been a primary charge of LDNR/OCM as explained above. The State of Louisiana has assigned that responsibility to agencies such as Louisiana Department of Culture, Recreation, and Tourism and LDWF. Through the LCRP all public and private developments within the LCZ go through a permitting process, in order to ensure that projects minimize any negative impacts to coastal wetlands. Various types of public access such as boardwalks, trails, and parks are eligible for funding through 306A of the Coastal Zone Management Act, and OCM

will make 306A grants available if, and when, adequate CZMA funding is made available for that purpose. LDNR/OCM recognizes the need for public access within the LCZ and, as a result, remains open to working with other programs or agencies involved with public access as it relates to wetland areas in the LCZ in the future.

Pursuant to La. Rev. Stat. 49:214.21 *et seq.* LDNR/OCM is charged with implementing the LCRP in order to protect, develop, and where feasible, restore or enhance resources of the LCZ. LDNR/OCM does not receive state funds for public access or recreation programs. The cutback in Section 306A funding has resulted in insufficient federal funding to allow OCM to conduct its core functions and still provide Section 306A grants. Wetland loss is the paramount responsibility of LDNR/OCM, and as a result fees and federal grants are applied to the operation and maintenance of programs which support the permit application review and associated support of the Coastal Use Guidelines.

The public access issue is not a strategy of LDNR/OCM because the solution to the largest part of the problem is to acquire property or property rights for the construction and maintenance of recreation areas. LDNR/OCM believes this to be best handled by the local government or other local agencies. LDNR/OCM does not have the funds, mandate or other resources to fulfill this need, but does support the local agencies in developing public recreational areas.

MARINE DEBRIS ASSESSMENT

Section 309 Enhancement Objective

Reducing marine debris entering the Nation's coastal and ocean environment by managing uses and activities that contribute to the entry of such debris

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

1. In the table below, characterize the significance of marine/Great Lakes debris and its impact on the coastal zone.

Source of marine debris	Extent of source (H,M,L)	Type of impact (aesthetic, resource damage, user conflicts, other)	Significant changes since last assessment (Y or N)
Land Based – Beach/Shore Litter	M	aesthetic, resource damage	N
Land Based – Dumping	M	aesthetic, resource damage	N
Land Based – Storm Drains and Runoff	M	aesthetic, resource damage	N
Land Based – Fishing Related (e.g. fishing line, gear)	M	aesthetic, resource damage	N
Ocean Based – Fishing (Derelict Fishing Gear)	M	aesthetic, resource damage	N
Ocean Based – Derelict Vessels	M	aesthetic, resource damage	N
Ocean Based – Vessel Based (cruise ship, cargo ship, general vessel)	M	aesthetic, resource damage	N
Hurricane/Storm	H	aesthetic, resource damage	N
Other (please specify)			
Other (please specify)			

2. If information is not available to fill in the above table, provide a qualitative description of information requested, based on the best available information.

The presence of marine debris on Louisiana's beaches and in coastal waters has economic, health and safety, and ecological impacts. Beach visitors find debris-strewn beaches unaesthetic and potentially injurious to health. Scarce tax dollars must be spent cleaning beaches. The people of Louisiana use the LCZ and nearshore waters for recreation year around. In the spring, fishing and boating are prevalent activities; summer brings camping, swimming, and crabbing to the forefront. Fall and winter finds groups fishing and hunting. Commercial fishing and trapping and oil and gas extraction, both onshore and offshore, occur throughout the year. With all of this activity a tremendous amount of trash can be generated and is sometimes not brought back to land for proper disposal.

Following Hurricanes Katrina and Rita, there were substantial amounts of debris strewn throughout the LCZ. There is a great deal of disaster related debris such as trees and wood, building wreckage, sand, mud, silt and gravel, vehicles, and derelict vessels as well as some hazardous material such as toxic or unknown chemicals that could have washed onto wetlands, beaches and shorelines across the coast. All of these debris types can pose injury to or kill marine life and humans, causing damage to important resources. The state, local and federal governments continue to address this issue through various programs.

3. Provide a brief description of any significant changes in the above sources or emerging issues.

There are no significant changes in sources of marine debris; however, the enormous effort to remove thousands of tons of hurricane-related marine debris remaining from Hurricanes Katrina and Rita had begun throughout Louisiana's waterways and coastline in 2005 and 2006. FEMA and the United States Coast Guard (USCG), with the help of local residents, had completed surveying more than 350 waterways in 23 parishes across south Louisiana by 2006. The clean-up effort, coordinated by the Department of Natural Resources (DNR), numerous state agencies and Louisiana State University's Sea-Grant, started in late August 2007. The initiative that was supposed to be for Katrina and Rita recovery had just begun when 2008 storms, Gustav and Ike, halted progress and compounded the problem. While the 2008 storms affected a few new areas, they mostly deposited debris in waterways affected by the 2005 hurricanes. In an effort to improve efficiency, reduce costs and quicken the process, Louisiana urged the Federal Emergency Management Agency to combine the removal of marine debris resulting from all four storms. This effort remains ongoing.

4. Do you use beach clean-up data? If so, how do you use this information?

Programs such as the Barataria National Estuary Program and Lake Pontchartrain Basin Foundation typically have a beach clean-up event annually, coordinated by the Louisiana Department of Environmental Quality Litter Reduction and Public Action program. In previous years the cleanup has been in conjunction with The Ocean Conservancy, other federal and state agencies and private companies and individuals who wanted to be actively involved. Beach

sweep results are used by programs such as the Lake Pontchartrain Basin Foundation, as well as LDEQ and other governmental agencies, for educational efforts aimed at reducing littering and improper disposal; for monitoring the overall trends and conditions of, and public concerns for the shore environment; and to plan for future cleanup efforts. Various other entities around the state also sponsor beach clean-up events. However, at this time, OCM does not collect or utilize this data.

Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

1. For each of the management categories below, indicate if the approach is employed by the state or territory and if significant changes have occurred since the last assessment:

Management categories	Employed by state/territory (Y or N)	Employed by local governments (Y, N, Uncertain)	Significant changes since last assessment (Y or N)
Recycling requirements	Y	Y	N
Littering reduction programs	Y	Y	N
Wasteful packaging reduction programs	N	N	N
Fishing gear management programs	Y	N	N
Marine debris concerns in harbor, port, marine, & waste management plans	Y	Y	N
Post-storm related debris programs or policies	Y	Y	Y
Derelict vessel removal programs or policies	Y	Y	N
Research and monitoring	N	N	N
Marine debris education & outreach	Y	N	N
Other: Oilfield Site Restoration	Y	N	N

2. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.
 - a) Characterize significant changes since the last assessment;
 - b) Specify if it was a 309 or other CZM-driven change (specify funding source) or if it was driven by non-CZM efforts; and

- c) Characterize the outcomes and effectiveness of the change
 - a. There have been no significant changes since the last assessment except for the volume of material removed due to some extremely active hurricane seasons. The mission of the Louisiana Marine Debris Removal Program remained the removal of hurricane-related debris in waterways used for recreation and fishing that continues to pose a threat to life, safety, the environment, and economic recovery in Louisiana.
 - b. This was not a 309 or CZM driven change
 - c. This is a multi-agency endeavor requiring the cooperation of State, local and federal government agencies and has been successful.

Post Storm Marine Debris Removal: Hurricanes Katrina and Rita also left behind tons of potentially hazardous marine debris in Louisiana waterways. The Marine Debris Removal Program for Louisiana, led by the Federal Emergency Management Agency (FEMA) and the United States Coast Guard (USCG) has been operational since September 2005. In Phases I-III, marine debris caused by Hurricanes Katrina and Rita was removed from “commercially navigable” waterways. However, the State received numerous complaints of debris left behind because of eligibility restrictions. Phase IV commenced in September 2007 with a FEMA/USCG inter-agency agreement (IAA) providing for more flexible eligibility guidelines. Its Scope of Work states that “The USCG shall provide for the removal of eligible (Hurricanes Katrina and Rita) storm-generated marine debris from Louisiana’s navigable waterways, inland shores, bayous, and lakes.” Phase IV targets include a wide variety of commercial and recreational fishing and boating waterways, multi-user residential canals and public marinas, as well as some drainage-related channels that are generally located south of I-10/I-12.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the CMP and partners (not limited to those items to be addressed through the Section 309 Strategy). If necessary, additional narrative can be provided below to describe major gaps or needs.

Gap or need description	Type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H,M,L)
Continuing data on marine debris	Data	M

Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

High X
Medium
Low

Briefly explain the level of priority given for this enhancement area.

Marine debris is a high priority to Louisiana, particularly in the aftermath of hurricanes Rita and Katrina. Hurricane debris, including hazardous and toxic materials, will remain in coastal areas long after the emergency cleanup effort is completed.

2. Will the CMP develop one or more strategies for this enhancement area?

Yes
No X

Briefly explain why a strategy will or will not be developed for this enhancement area.

No strategies will be developed by OCM because jurisdiction over marine debris falls to other state and local agencies. Marine debris, litter, and recycling are currently under the jurisdiction of LDWF, LDEQ, and at least three other state agencies, as well as local governments. These agencies have funding and staff whose jobs are to promote waste reduction and recycling efforts, promote and coordinate anti-litter campaigns and cleanups and to enforce existing state and federal anti-litter laws. LDNR/OCM has no staff currently available for these activities or the jurisdiction to be involved in any capacity other than continuing the role of cooperating with the other state agencies and user groups. LDNR/OCM continues to work with the parishes and municipalities to reduce litter, debris, and used oil at marinas and boat ramps. The OCM uses its education and outreach programs to remind people about their responsibility to keep the coast clean and litter free.

CUMULATIVE AND SECONDARY IMPACTS ASSESSMENT

Section 309 Enhancement Objective

Development and adoption of procedures to assess, consider, and control cumulative and secondary impacts of coastal growth and development, including the collective effect on various individual uses or activities on coastal resources, such as coastal wetlands and fishery resources.

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

1. Identify areas in the coastal zone where rapid growth or changes in land use require improved management of cumulative and secondary impacts (CSI) since the last assessment. Provide the following information for each area:

Geographic Area	Type of Growth or Change in Land Use	Rate of Growth or Change in Land Use (H, M, L)	Anticipated Threat Or Conflict
LaPlace, Luling/Boutte,	Pioneer (or virgin) development (and coastal evacuation) activities in area not previously developed, often from linear features (levees, roads, canals, etc.)	Medium	That establishment of these features can lead to a snowballing effect of secondary development, such as wetlands opened up for settlement upon apparent protection offered by new levee or other protection feature, increased water quality degradation.
Northshore of Lake Pontchartrain area of St. Tammany & Lower Tangipahoa, Cypremort Point, and Houma and surrounding area of Terrebonne Parish	Expanding (sprawl) development from previously permitted activities (and coastal evacuation)	Medium	That governmental permitting and placement of physical infrastructure to support initial or “pioneer” development in previously undeveloped area opens the door for follow-on increments of development (sprawl) which combine for cumulative* impact on the environment including water quality degradation

2. Identify sensitive resources in the coastal zone (e.g., wetlands, water bodies, fish and wildlife habitats, critical habitat for threatened and endangered species) that require a greater degree of protection from the cumulative or secondary impacts of growth and development. If necessary, additional narrative can be provided below to describe threats.

*Cumulative impact is an aggregate of multiple specific impacts, including water quality.

Sensitive Resources	CSI Threats Description	Level of Threat
Coastal wetlands	Loss from dredge/fill	medium
Water bodies	Water quality issues, especially from nonpoint source pollution	medium
Groundwater	Drawdown from residential, agriculture and industrial including oil and gas	medium
Hydrology	Severance of natural hydrology by linear developments, etc.	medium
Fish and wildlife habitat	Loss of fish nursery in wetland, loss of forest blocks for bird nesting	medium

Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

1. For each of the management categories below, indicate if the approach is employed by the state or territory and if significant changes have occurred since the last assessment:

Management categories	Employed by state/territory (Y or N)	Significant changes since last assessment (Y or N)
Regulations	Y	N
Policies	Y	Y
Guidance	Y	N
Management Plans	Y	N
Research, assessment, monitoring	Y	Y
Mapping	Y	Y
Education and Outreach	Y	N
Other (please specify)		

2. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.
 - a) Characterize significant changes since the last assessment;

Policies: By Governor’s executive order, all State agencies will coordinate with and be consistent with the *Louisiana Master Plan for a Sustainable Coast*, which includes a specific directive to minimize cumulative and secondary impacts from linear features such as levees.

Research/assessment: Since the last reporting period Louisiana has taken delivery of a study, not funded under NOAA/309 that assessed spatial and temporal changes in development and associated cumulative and secondary impacts in an area of (then) high growth, the pre-Katrina North shore area of Lake Pontchartrain in western St. Tammany Parish. This GIS-heavy study could serve as both a generic model and a location-specific baseline for future monitoring of sprawl in this north shore of Lake Pontchartrain area, although this area was also hit hard by Hurricane Katrina in the second half of 2005, and growth there may not be proceeding at quite the same break-neck pace as before.

Mapping: Since the last 309 reporting period Louisiana has acquired remotely sensed imagery for the three time periods of 2005, 2007 and 2008 (building upon our previous coverage for 1998 and 2004, and 2006 not being available to us) and this spatial data will offer additional opportunities for examining changes in land use/land cover for specific geographic areas of concern. The staff anticipates exploring

- b) Specify if it was a 309 or other CZM-driven change (specify funding source) or if it was driven by non-CZM efforts;

The first (policy) was an unfunded mandate, the second (research study) was funded by a grant from USEPA and the third (mapping enhancements) from various non-309 sources including USEPA, USGS, Louisiana State funding and OCPR.

- c) Characterize the outcomes and effectiveness of the changes.

All are still under review but showing promise and the ultimate effectiveness is yet to be determined.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the CMP and partners (not limited to those items to be addressed through the Section 309 Strategy). If necessary, additional narrative can be provided below to describe major gaps or needs.

Gap or need Description	Type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H, M, L)
GIS database to allow the tracking of spatial/temporal changes in land use/land cover associated with permitted development	Additional updated spatial data, and integration with emerging data sets such as C-CAP.	L
Policy research document developmental pressure	Regulatory, policy	L

Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

High ___
Medium ___
Low X

Briefly explain the level of priority given for this enhancement area.

Louisiana has not chosen to dedicate additional resources to addressing cumulative and secondary impact at this time. Louisiana’s current networked regulatory and policy mechanisms will have to suffice until limited resources can be redistributed from issues we believe are of more immediate consequence to the health and well being of our state’s citizens.

2. Will the CMP develop one or more strategies for this enhancement area?

Yes ___
No X

Briefly explain why a strategy will or will not be developed for this enhancement area.

The Cumulative and Secondary Impacts enhancement area was previously identified as an area of relatively low priority and is now still considered an area of relatively low priority. In the past Louisiana has seen positive results through its Clean Marina program and other elements of its Coastal Nonpoint Source Pollution Control Program and coordination between these programs and our Local Coastal Programs, especially in the parishes of relatively higher growth. Though some degree of threats and conflicts will continue to be present, and monitored, the LDNR/OCM feels the progress that is being made statewide and by LDNR/OCM in these areas is sufficient, particularly given the ongoing enhancement of the LDNR GIS system with its many functions and applications, and the ongoing coordination with other state entities involved with the *Louisiana Master Plan for a Sustainable Coast*.

SPECIAL AREA MANAGEMENT PLANNING ASSESSMENT

Section 309 Enhancement Objective

Preparing and implementing special area management plans for important coastal areas

The Coastal Zone Management Act (CZMA) defines a Special Area Management Plan (SAMP) as “a comprehensive plan providing for natural resource protection and reasonable coastal-dependent economic growth containing a detailed and comprehensive statement of policies; standards and criteria to guide public and private uses of lands and waters; and mechanisms for timely implementation in specific geographic areas within the coastal zone. In addition, SAMPs provide for increased specificity in protecting natural resources, reasonable coastal-dependent economic growth, improved protection of life and property in hazardous areas, including those areas likely to be affected by land subsidence, sea level rise, or fluctuating water levels of the Great Lakes, and improved predictability in governmental decision making.”

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

1. Identify geographic areas in the coastal zone subject to use conflicts that can be addressed through special area management plans (SAMP). Also include areas where SAMP have already been developed, but new issues or conflicts have developed that are not addressed through the current plan. If necessary, additional narrative can be provided below.

Geographic Area	Major conflicts	Is this an emerging or a long-standing conflict?
Chenier Ridges	Mining, Habitat Destruction, Development, Subsidence	Long Standing

The Chenier plain is positioned to the west of the deltaic plain and is characterized by marsh that is segmented by long, narrow coast-parallel sand and shell ridges with marsh lands between the ridges. In the last several decades, humans have impacted the Chenier ecosystems with such activities as mining and exporting mined materials out of the Chenier Plains, livestock grazing, fence building, road building, and urbanization. Forces such as winds, tides, and currents may be acting in concert with human activities increasing the erosion processes and acting to exacerbate subsidence and eventually the loss of these higher elevation geomorphic features. Resource

planners do not know the extent to which the coastal use activities detailed above affect the geomorphic integrity of these Chenier ridges and their ability to provide a natural buffer for storm surge, inland flooding, and saltwater intrusion. Louisiana is concerned about the sustainability of these ridge systems as hazard protection devices, and about their increasing vulnerability to human degradation from development activities.

OCM has not absolutely ruled out the development of a Special Area Management Plan for chenier ridges; however, at this time, OCM believes that local driven initiatives in which we may act as a facilitator and/or technical assistance provider may prove to be far more effective and able to accomplish goals that state government is precluded from doing to achieve success. In addition, OCM has previously and will continue to utilize 309 funding to explore legislation, policy and procedure, and protocol options. Protection of chenier and other natural ridge features can be incorporated into our current coastal hazard assessment strategy.

Louisiana has two SAMPs which are currently continuing to operate as they have since original program submittal and approval by NOAA. They are the Louisiana Offshore Oil Port (LOOP) and the Marsh Island Wildlife Management Area and Game Preserve managed by the LDWR. While Louisiana has used the SAMP planning process to initiate conservation and management efforts in several areas, the OCM has allowed local entities to pursue advanced plan formulation and implementation. Please see the coastal hazards section of this report for details.

Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

1. Identify below any special management areas in the coastal zone for which a SAMP is under development or a SAMP has been completed or revised since the last Assessment:

SAMP title	Status (new, revised, or in progress)	Date approved or revised
None		

2. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.
 - a) Characterize significant changes since the last assessment (area covered, issues addressed and major partners);
 - b) Specify if it was a 309 or other CZM-driven change (specify funding source) or if it was driven by non-CZM efforts; and
 - c) Characterize the outcomes and effectiveness of the changes.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the CMP and partners (not limited to those items to be addressed through the Section 309 Strategy).

Gap or need description	Type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H,M,L)
Destruction of Chenier Ridges	regulatory, policy, communication & outreach	M

Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

High _____
Medium _____
Low X

Briefly explain the level of priority given for this enhancement area.

The state believes this to be of secondary concern to our more immediate issues of wetland loss and coastal hazards.

2. Will the CMP develop one or more strategies for this enhancement area?

Yes _____
No X

Briefly explain why a strategy will or will not be developed for this enhancement area.

OCM will expand upon or resolve any issues remaining from our 2006 – 2011, 309 cheniers strategy via incorporation into our current coastal hazards strategy.

OCEAN/GREAT LAKES RESOURCES ASSESSMENT

Section 309 Enhancement Objective

Develop and enhance regulatory, planning, and intra-governmental coordination mechanisms to provide meaningful state participation in ocean resource management and decision-making processes.

Where necessary and appropriate, address specific challenges to ocean resources by coordination of existing authorities and minimization of use conflicts, in consideration of potential impacts on the coastal zone.

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

Louisiana's coastal zone and ocean resources are inextricably linked as one blends seamlessly into the other throughout our land's edge. The coastal ocean habitat, with its estuaries, wetlands, barrier islands and seashores, serves as breeding and nursery grounds for many commercially important ocean species and migratory waterfowl. Louisiana's commercial and recreational fisheries provide important jobs and an economic boost to the State. The coastal ocean habitat also supports extensive oil and gas exploration and development, navigation, and port facilities.

The coastal ocean habitat of Louisiana was severely impacted by two damaging hurricanes in 2008. As a result of Hurricanes Gustav and Ike, the coastal zone lost barrier islands and protective elevations and was left more vulnerable to land loss from future storms as well as natural processes. This loss of protection may also compromise the future ability of the coastal ocean habitat to support oil and gas activities and commercial fisheries.

For four months of 2010, the BP Mississippi Canyon, Macondo Well offshore Louisiana spilled an extremely high volume of oil into the Gulf of Mexico. Coastal marshes, beaches and tidal inlets were and continue to be impacted and oiled shorebirds and marine life including fish and invertebrate larvae suffered and died. The degree of environmental damage and the extent of eventual recovery will not be known for years. Changes in the regulatory framework and safety standards are now under discussion. Confidence in the regulators and offshore drilling industry has been severely eroded, but the presence of offshore exploration and production in the economy and culture of coastal Louisiana remains vital.

During the last assessment period, the Gulf of Mexico Alliance (GOMA) was formed to partner the Gulf States with federal agencies and non-governmental organizations. The common objective is to enhance the health of the Gulf of Mexico. Six priority issues have been identified: (1) water quality, (2) habitat conservation and restoration, (3) ecosystem integration and assessment, (4) nutrients & nutrient impacts, (5) coastal community resilience, and (6) environmental education. LDNR/OCM has participated in the efforts of the GOMA since its inception.

1. In the table below characterize ocean and/or Great Lakes resources and uses of state concern, and specify existing and future threats or use conflicts.

Resource or Use	Threat or Conflict	Degree of Threat (H, M, L)	Anticipated Threat Or Conflict
Fisheries/Fishing	Overfishing (reduction to sustainable fisheries) and bycatch	Medium	Increased reduction of fisheries resource
Agricultural Operations along Mississippi River	Hypoxia in coastal waters from nonpoint source pollution runoff causing a reduction in the state's fisheries	Medium	Continued hypoxia in coastal waters and loss of fisheries resource
Coastal Development	Nonpoint source pollution runoff and loss of habitat	High	Increased pollution and loss of habitat
Activities resulting in Global Warming	Sea Level Rise resulting in less precipitation causing changes in wetland gradients and fisheries habitats and yields	High	Increased loss of habitat, changes in wetlands gradients and fisheries yields due to sea level rise
Hydrocarbon extraction, offshore Liquid Natural Gas (LNG) delivery	Degradation or loss of habitat due to onshore activities and uncontrolled oil spills; possible impacts to fisheries from permitted open loop LNG facilities	High	Loss of habitat due to onshore activities and uncontrolled oil spills; reduced impacts to fisheries from any future permitted open loop LNG facilities

2. Describe any changes in the resources or relative threat to the resources since the last assessment.

While hypoxia continues to be a threat to our coastal ocean resources, LDNR/OCM has reduced the threat from agricultural operations along the Mississippi River from high to medium. There is more widespread understanding by the public of the link between nutrient runoff throughout the River's watershed and depressed oxygen levels in the Gulf of Mexico today than there was five years ago. Much of this is through the efforts of the GOMA.

Louisiana continues to face the loss and increased threat of loss of its important coastal wetlands and other coastal ocean habitats as a result of coastal development and increased point and non-point source pollution. LDNR/OCM has elevated the threat from coastal development from medium to high. There is increasing concern about the fragility of our working coast because of outreach efforts as well as natural and man-made disasters, such as the hurricanes and oil spill.

Even though the threat to ocean resources from hydrocarbon extraction has not changed in the aftermath of the BP spill, because that threat was already recognized as being high, the state now has a better appreciation for exactly how this threat may be manifested. Awareness is also increased as to the physical, operational and regulatory weak points in the safety systems which are intended to prevent such failures.

Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

- For each of the management categories below, indicate if the approach is employed by the state or territory and if significant changes have occurred since the last assessment:

Management categories	Employed by state/territory (Y or N)	Significant changes since last assessment (Y or N)
Comprehensive ocean/Great Lakes management plan or system of Marine Protected Areas	N	N
Regional comprehensive ocean/Great Lakes management program	Y	N
Regional sediment or dredge material management plan	Y	Y
Intra-governmental coordination mechanisms for Ocean/Great Lakes management	Y	N
Single-purpose statutes related to ocean/Great Lakes resources	Y	N
Comprehensive ocean/Great Lakes management statute	N	N
Ocean/Great Lakes resource mapping or information system	N	N
Ocean habitat research, assessment, or monitoring programs	N*	N

Management categories	Employed by state/territory (Y or N)	Significant changes since last assessment (Y or N)
Public education and outreach efforts	Y	N
Other (please specify)		

*yes, through universities not affiliated with LNDR CZM

4. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.

a) Characterize significant changes since the last assessment;

Regional dredge material management plan

A major objective of the GOMA is habitat conservation and restoration throughout the Gulf Coast and sediment resources are necessary to assure success. A technical framework for the Gulf Regional Sediment Management Master Plan (GRSMMP) has been drafted to guide sediment management initiatives. The GRSMMP recognizes dredging activities by the Corps of Engineers as a valuable source of the materials needed for restoration efforts and cites the lack of a comprehensive dredge information database.

LDNR/OCM continues to encourage the beneficial use of material dredged each year from navigation channels by the Corps of Engineers and helps facilitate partnerships with other funding agencies where possible. OCM recently redoubled its efforts to bring the Corps' maintenance dredging program into compliance and consistency with the state's federally-approved coastal management program. In November 2009, LDNR/OCM requested the assistance of the Department of Commerce (DOC) to require the Corps to make beneficial use a part of its annual maintenance dredging. The DOC declined to assist. On October 13, 2010 OCM sent the NOD/COE its objection to the NOD's proposed FY 11 dredging and disposal plan for southwest pass on the Mississippi River.

LDNR/OCM also has new rules on beneficial use of dredge material in place for coastal projects that include dredging. Applicants for a coastal use permit may now make a contribution to the Coastal Resources Trust Fund, based on the amount of material dredged, in place of mitigation. The new rule applies to any project that involves dredging 25,000 cubic yards or more to facilitate the movement or mooring of vessels. This in-lieu fee payment may kick in for projects where location and/or material quality may have otherwise prevented the beneficial use of material.

Public education and outreach efforts

Although LDNR OCM does participate in extensive outreach, we do not have specific efforts that address ocean resources directly.

- b) Specify if it was a 309 or other CZM-driven change (specify funding source) or if it was driven by non-CZM efforts; and

Our Nonpoint Source work is funded by 310 in the years that funding is made available. Our other work, including efforts toward beneficial use, is funded by 309.

These have for the most part been CZM-309 driven changes.

- c) Characterize the outcomes and effectiveness of the changes.

LNDR/OCM would characterize the outcomes as quite positive and believes these changes have been most effective in achieving tangible gains. OCM has also gained fresh momentum to address the challenges of coastal ocean habitat protection.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the CMP and partners (not limited to those items to be addressed through the Section 309 Strategy). If necessary, additional narrative can be provided below to describe major gaps or needs.

Gap or need Description	Type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H, M, L)
Nonpoint source pollution leading to Gulf Hypoxia information regarding levels, sources and regulatory policies/options	Regulatory, policy	M
Marine Spatial Planning Information	Data, training, policy communication and outreach	M

Although there are information needs in the matter of offshore oil spill regulation, planning, prevention, response capability, and response technology, the present situation is too fluid to identify specific measures OCM might undertake to address these gaps.

Enhancement Area Prioritization

- 3. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

High _____
Medium X
Low _____

Briefly explain the level of priority given for this enhancement area.

The Ocean Resources enhancement area was previously identified as an area of low priority and is now considered an area of medium priority. Developing mitigation for impacts from oil and gas exploration and development in the Gulf of Mexico and coastal zone is very important. It is also vital that we increase beneficial use of dredge material, of which there is still so much wasted in Louisiana.

4. Will the CMP develop one or more strategies for this enhancement area?

Yes
No X

Briefly explain why a strategy will or will not be developed for this enhancement area.

Though threats and conflicts are present, the LDNR/OCM feels the progress that is being made statewide and by LDNR/OCM in these areas is sufficient. As the procedural and regulatory changes to offshore oil spill control and response become established, OCM will continuously evaluate the best ways to ensure appropriate safeguards to coastal resources.

ENERGY & GOVERNMENT FACILITY SITING ASSESSMENT

Section 309 Enhancement Objectives

Adoption of procedures and enforceable policies to help facilitate the siting of energy facilities and Government facilities and energy-related activities and Government activities which may be of greater than local significance

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

1. In the table below, characterize the types of energy facilities in your coastal zone (e.g., oil and gas, Liquefied Natural Gas (LNG), wind, wave, Ocean Thermal Energy Conversion (OTEC), etc.) based on best available data. If available, identify the approximate number of facilities by type.

Type of Energy Facility	Exists in CZ (# or Y/N)	Proposed in CZ (# or Y/N)	Interest in CZ (# or Y/N)	Significant changes since last assessment (Y or N)
Oil and gas facilities	Y	Y	Y	Y
Pipelines	Y	Y	Y	N
Electric transmission cables	Y	Y	Y	N
LNG	Y	Y	Y	Y
Wind	N	Y	Y	Y
Wave	N	N	Y	Y
Tidal	N	N	Y	Y
Current (ocean, lake, river)	N	N	Y	Y
OTEC	N	N	Y	Y
Solar	N	N	Y	N
Other (please specify)				

In the Louisiana Coastal Zone there are approximately 70,000 miles of pipelines. There also currently exists thousands of wells and storage facilities.

2. Please describe any significant changes in the types or number of energy facilities sited, or proposed to be sited, in the coastal zone since the previous assessment.

Oil and gas facilities

Since the time the draft report was written, the Deepwater Horizon drill ship exploded and the resulting spill continues to impact the coastal resources of Louisiana. However, none of the events of the spill impacts the process by which we review the siting of energy and government facilities.

The Department of Energy, Strategic Petroleum Reserve, has considered expansion of oil and gas storage in salt domes along the Gulf Coast. LDNR/ OCM offers comments when solicited. The Department of the Interior, Bureau of Ocean Energy Management, Regulation, and Enforcement, traditionally conducts two to three Outer Continental Shelf Lease Sales annually, affecting Louisiana coastal resources. These have been suspended subsequent to the Deepwater Horizon incident, but LDNR/OCM has and will continue to provide comments on these potential impacts and the requirements for Coastal Zone Management (CZM) compliance at every opportunity.

LNG

While the open loop regasification system remains a potential threat to the fisheries resources of the Louisiana Coastal Zone (LCZ), there has been a recent loss of interest from the oil and gas industry in its development as other pursuits have proven more profitable. Between 2006 and 2010, OCM permitted one open loop system; this operation is about 200 miles offshore and it is believed the potential negative effects may be offset by the distance. Other open loop systems have been changed to closed loop at the planning stage, through the efforts of OCM.

Wind, Wave, Tidal, Current (ocean, lake, river), OTEC

The Department of the Interior, Minerals Management Service, is working toward possible implementation of new policies for wind, wave, tidal, current and OTEC renewable energy sources. OCM will be involved as these new policies move toward adoption. To date LDNR/OCM has received one application involving a wind energy facility in the state coastal zone. There have been no applications submitted to LDNR/OCM for harnessing wave, tidal, current or OTEC renewable energy in the coastal zone or Outer Continental Shelf (OCS). There is a proposal to harness current energy in the Mississippi River; however, there has been no formal application. However there have been proposals for such and we have placed those proposals on public notice.

3. Does the state have estimates of existing in-state capacity and demand for natural gas and electric generation? Does the state have projections of future capacity? Please discuss.

While the LDNR Energy Section has some information, this information is not part of the CZM program and is dependent upon the production and demand of natural gas. Louisiana is a significant producer of natural gas, and exports this commodity to other states. Demand for natural gas, within and outside of Louisiana, is dependent on a great many economic and regulatory variables.

4. Does the state have any specific programs for alternative energy development? If yes, please describe including any numerical objectives for the development of alternative energy sources. Please also specify any offshore or coastal components of these programs.

Yes, the State does have programs for alternative energy development but these are not part of the CZM program. At present, LDNR does not sponsor any programs for alternative energy development, although the Agency does offer economic stimulus programs as part of Louisiana's State Energy Plan.

University and private research is ongoing throughout the State. Some efforts include development of ethanol from sugarcane (LSU AgCenter's Audubon Sugar Institute) and production of renewable diesel and jet fuels from nonfood grade animal fats (Dynamic Fuels LLC). The State also supports a robust timber industry. Trees are the number one crop in Louisiana and are manufactured into building materials, paper products and other materials.

5. If there have been any significant changes in the types or number of government facilities sited in the coastal zone since the previous assessment, please describe.

Hurricane Protection Levees

LDNR/OCM has worked closely with United States Army Corps of Engineers (USACE) as it constructs and upgrades protection levees and structures to protect southeast Louisiana and the greater New Orleans area.

Houma Navigation Canal deepening project

With the intent to allow deeper-draft vessels access to the port of Houma, and larger offshore oil and gas structures to be constructed and transported offshore, this project to deepen a Federally-maintained navigation channel has been under development for more than five years.

Port of Iberia deepening project

This project involves the deepening, by the USACE, of two federally-maintained navigation channels in coastal Louisiana. The project has been under development for several years and is reaching the feasibility stage.

Sabine-Neches Waterway deepening project

Another federally-maintained channel, the project is located primarily in Texas but transits coastal Louisiana as well. This is also reaching the feasibility stage.

MRGO closure

The Mississippi River-Gulf Outlet, a shipping channel dredged parallel to the Mississippi River in the 1960s for the convenience of shipping access to the Port of New Orleans, was closed by Congressional authorization as a result of the recognition of massive losses to wetlands with relatively little economic benefit.

Restoration projects

Numerous projects have been planned, designed, and constructed in coastal Louisiana during the reporting period, under authority of the Coastal Wetlands Planning, Protection, and Restoration Act. These are intended to protect and restore coastal wetlands.

Construction, restoration, and disposal of federal facilities
Hurricanes Katrina, Rita, Gustav and Ike caused extensive damage to southern Louisiana, forcing the relocation of military and civilian federal facilities, either permanently or temporarily, as repairs or replacement construction occurred.

Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

1. Does the state have enforceable policies specifically related to energy facilities? If yes, please provide a brief summary, including a summary of any energy policies that are applicable to only a certain type of energy facility.

Yes, the State has enforceable policies specifically related to energy facilities. A number of the enforceable policies of the Louisiana Coastal Resources program apply to the siting of energy facilities as well as to other activities; these policies tend to focus on the potential impacts common to all rather than breaking out specific activities whose coastal effects are broadly similar. An exception to this generality are the Coastal Use Guidelines found at Louisiana Administrative Code, Title 43 Part I §719: Guidelines for Oil, Gas, and Other Mineral Activities. These guidelines require the minimization of impacts from hydrocarbon exploration and production activities by reducing the size of facilities, placing them in less-damaging locations, managing operations, and restoring sites to pre-project conditions.

The State of Louisiana through the coastal management program has two management tools with respect to the siting and operation of energy facilities located in the LCZ and adjacent federal waters. The Coastal Use Permit (CUP) program reviews applications for developmental activities in the LCZ, including applicants for federal licenses and permits. The CUP program requires the consideration of alternative site locations or operation of facilities, and mitigation for unavoidable habitat losses. All CUP applicants proposing new oil & gas wells, workover of existing oil & gas wells, new production facilities and maintenance and/or expansion of existing production facilities must provide OCM with a list of all federal, state and local oil & gas spill prevention related laws that are applicable to the proposed activity and a statement attesting that they will comply with all of them. All CUP applicants proposing new oil & gas wells undergo OCM's geological review process whereby petroleum geologists, engineers and other natural resource agency personnel meet with the applicants to assess avoidance, minimization and mitigation alternatives.

The second program is Federal Consistency. Under the Coastal Zone Management Act (CZMA), the LDNR reviews federally licensed or permitted activities which may affect coastal resources, and for which a CUP is not required. Criteria for consistency authorization are essentially the same as for CUPs.

The Louisiana coastal program states (La. Rev. Stat. 49: 214.32 B.):

Any governmental body undertaking, conducting, or supporting activities directly affecting the coastal zone shall ensure that such activities shall be consistent to the maximum extent practicable with the state program and any affected approved local program having geographical jurisdiction over the action.

The LDNR/OCM reviews the construction of new and the expansion of existing Federal installations, pursuant to the CZMA as a Direct Federal Action consistency determination (Subpart C of 15CFR930-30-44). Federal facilities of significance are the possessions of the U.S. Coast Guard, National Aeronautics and Space Administration (NASA), U.S. Navy, U.S. Department of Energy (DOE), the U.S. National Park Service, U.S. Fish and Wildlife Service, and the USACE. Although some acreage is for the installation and potential expansion, most acreage is for habitat/wildlife preservation and recreation.

Proposed construction activities associated with state and local governmental facilities are treated as standard applications and are reviewed pursuant to the permitting requirements of the State and Local Coastal Resource Management Act (SLCRMA) and the applicable Coastal Use Guidelines: guidelines applying to all uses (Guidelines 1.1 - 1.10), guidelines for levees (Guidelines 2.1 - 2.6), guidelines for linear facilities (Guidelines 3.1 - 3.16), guidelines for dredged spoil disposal (Guidelines 4.1 - 4.6), guidelines for surface alterations (Guidelines 6.1 - 6.14), and the guidelines for waste disposal (Guidelines 8.1 - 2.9). The term "Maximum Extent Practicable" qualifier is applied to federal projects [15CFR930.39(c) of the NOAA consistency regulations].

2. Please indicate if the following management categories are employed by the State or Territory and if there have been significant changes since the last assessment:

Management categories	Employed by state/territory (Y or N)	Significant changes since last assessment (Y or N)
Statutes or regulations	Y	N
Policies	Y	Y
Program guidance	Y	N
Comprehensive siting plan (including SAMPs)	Y	N
Mapping or GIS	Y	N
Research, assessment or monitoring	Y	N
Education and outreach	Y	N
Other (please specify)		

3. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.

- a) Characterize significant changes since the last assessment;

Policies

Governor’s Executive Order establishing Master Plan

In 2008, the Governor of Louisiana approved by Executive Order the Louisiana Comprehensive Master Plan for a Sustainable Coast. Since that time, all regulatory authority exercised by LDNR/OCM must comply with the Office of Coastal Protection and Restoration’s plans as established by the Order. Direct federal action projects and licenses and permits are reviewed for consistency with the State’s Master plan, with the reviewing agency being the Office of Coastal Protection and Restoration.

Federal activities subject to consistency review and all CUP applications, including the siting of energy and government facilities, must conform to the Master Plan in order to be consistent with the LCRP. Significant considerations include the potential effects on hurricane protection levees, coastal wetlands and restoration efforts, and the general sustainability of the Louisiana coast. In regards to the Master Plan for a Sustainable Coast, its application to energy and facility siting is considered in regards to potential impacts on coastal resources.

- b) Specify if it was a 309 or other CZM-driven change (specify funding source) or if it was driven by non-CZM efforts; and

These were not CZM-driven changes.

- c) Characterize the outcomes and effectiveness of the changes.

The Master Plan has been effective in making sure new development is consistent with its objective of a sustainable coast.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the CMP and partners (not limited to those items to be addressed through the Section 309 Strategy). If necessary, additional narrative can be provided below to describe major gaps or needs.

Gap or need description	Type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H,M,L)
Currently there is not a complete oil and gas platform location map or data set. The issue of mapping existing and future oil and gas infrastructure as potential coastal hazards is a vital one	policy, data, training	H

Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

- High** X
Medium
Low

Briefly explain the level of priority given for this enhancement area.

Each of 5 major hurricanes in the last 5 years had significant impacts on the oil and gas infrastructure in coastal Louisiana. There was a tremendous effect and expense by the industry to repair and replace destroyed and damaged infrastructure after each hurricane. Coastal erosion has had major impacts on the pipelines, platforms and other infrastructure. Much of the infrastructure was designed to exist in protected marsh, bays and waters. Because of coastal erosion these facilities are now subject to the much larger wave energies of open water and will have to be relocated or redesigned and rebuilt. Additionally, after the BP spill the State is now aware of the potential damages of a major oil spill.

2. Will the CMP develop one or more strategies for this enhancement area?

- Yes** X
No

Briefly explain why a strategy will or will not be developed for this enhancement area.

Currently there is not a complete oil and gas platform location map or data set. The issue of mapping existing and future oil and gas infrastructure as potential coastal hazards is a principal one. This data set will be critical in mapping the locations of the large known coastal hazards. There is no current map, hardcopy or digital, collectively of these oil and gas platform locations. As an agency regulating activities in the coastal zone, OCM recognizes the need for a database consisting of tools than can aid regulators and planners in making informed decisions regarding potential coastal hazards.

STRATEGY TITLE: New Permit Procedures for Avoiding and Mitigating Oil and Gas Facility Siting conflicts

AQUACULTURE ASSESSMENT

1. Section 309 Enhancement Objective

Adoption of procedures and policies to evaluate and facilitate the siting of public and private aquaculture facilities in the coastal zone, which will enable States to formulate, administer, and implement strategic plans for marine aquaculture.

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

1. Generally characterize the private and public aquaculture facilities currently operating in your state or territory.

Type of existing aquaculture facility	Describe recent trends	Describe associated impacts or use conflicts
Numerous	No recent trends discernable	Can conflict with oil & gas activities, coastal restoration projects

Louisiana has one of the most diverse aquaculture industries in the United States, including crawfish, crabs, catfish, tilapia, baitfish, game fish, alligator, and baby turtles. These industries are regulated by agencies including the Department of Wildlife and Fisheries and Department of Agriculture and Forestry, and are not part of the CZM program. DNR Office of Coastal Management does regulate the siting of aquaculture facilities in the coastal zone, but they are treated no differently than any other permit application.

Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

1. For each of the management categories below, indicate if the approach is employed by the state or territory and if significant changes have occurred since the last assessment:

Management categories	Employed by state/territory (Y or N)	Significant changes since last assessment (Y or N)
Aquaculture regulations	Y	N
Aquaculture policies	Y	N
Aquaculture program guidance	Y	N
Research, assessment, monitoring	Y	N
Mapping	N	N
Aquaculture education & outreach	Y	Y

Other (please specify)		
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2. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.

a) Characterize significant changes since the last assessment;

There were no changes in state policies

b) Specify if it was a 309 or other CZM driven change (specify funding source) or if it was driven by non-CZM efforts; and

There is a move toward aquaculture in marine waters that is not CZM-driven. It originates at the federal level.

c) Characterize the outcomes and effectiveness of the changes.

It is premature to characterize this change as it is still in the early stages of development. At this time, LDNR/OCM plays no role in aquaculture/mariculture regulation.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the CMP and partners (not limited to those items to be addressed through the Section 309 Strategy). If necessary, additional narrative can be provided below to describe major gaps or needs.

Gap or need description	Type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H,M,L)
Aquaculture policy research document	Policy	M

No gaps or needs have been identified that would appropriately be addressed through the 309 or CZM process.

Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

High _____
Medium _____

Low X

Briefly explain the level of priority given for this enhancement area.

While aquaculture is a moderately significant industry in the state it has a small presence in coastal Louisiana. During the previous assessment, aquaculture was ranked as a low priority and it remains low.

2. Will the CMP develop one or more strategies for this enhancement area?

Yes _____
No X

Briefly explain why a strategy will or will not be developed for this enhancement area.

Aquaculture and mariculture are administered through the LDAF and the LDWF. LDNR/OCM will continue to provide any assistance requested and work cooperatively with these agencies to address any issues that may involve LDNR/OCM. While aquaculture is important in the State, it has a small presence in the Coastal Zone compared to the rest of the State.

STRATEGY TITLE: IMPLEMENTING AN UPDATED INLAND BOUNDARY FOR LOUISIANA'S COASTAL ZONE

I. Issue Area(s)

The proposed strategy or implementation activities will support the following priority (high or medium) enhancement area(s) (*check all that apply*):

- | | |
|--|---|
| <input type="checkbox"/> Aquaculture | <input type="checkbox"/> Cumulative and Secondary Impacts |
| <input type="checkbox"/> Energy & Government Facility Siting | <input checked="" type="checkbox"/> Wetlands |
| <input checked="" type="checkbox"/> Coastal Hazards | <input type="checkbox"/> Marine Debris |
| <input type="checkbox"/> Ocean/Great Lakes Resources | <input type="checkbox"/> Public Access |
| <input type="checkbox"/> Special Area Management Planning | |

II. Program Change Description

A. The proposed strategy will result in, or implement, the following type(s) of program changes (*check all that apply*):

- A change to coastal zone boundaries;
- New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;
- New or revised local coastal programs and implementing ordinances;
- New or revised coastal land acquisition, management, and restoration programs;
- New or revised Special Area Management Plans (SAMP) or plans for Areas of Particular Concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,
- New or revised guidelines, procedures and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government and other agencies that will result in meaningful improvements in coastal resource management.

B. *Describe the proposed program change(s) or activities to implement a previously achieved program change. If the strategy will only involve implementation activities, briefly describe the program change that has already been adopted, and how the proposed activities will further that program change. (Note that implementation strategies are not to exceed two years.)* The program change resulting from this report will be an expanded boundary of the coastal zone, with new areas defined for coastal use permitting and an area of concern defined for certain state and federal activities which the state will review pursuant to existing authorities for consistency with the LCRP. During the 2009 regular session of the Louisiana legislature, the issue of the adequacy of the inland boundary of the Louisiana coastal zone (LCZ) arose as part of the legislative debate for a bill to add Ascension Parish into the LCZ. In addition, Louisiana has developed a Master Plan for a Sustainable Coast that encompasses an area much larger than the currently defined coastal zone. The OCM has undertaken an initiative to conduct a scientific assessment of the adequacy of its current LCZ boundary. Much of this task has been complete within the previous 309 strategy period. This portion of the strategy involves the implementation of an updated coastal zone for Louisiana which is

based on science and socioeconomic factors associated with coastal processes and human activities associated with the coast. The program change resulting from this report will be an expanded boundary of the coastal zone, with new areas defined for coastal use permitting and an area of concern defined for certain state and federal activities which the state will review pursuant to existing authorities for consistency with the LCRP. In 2010 the legislature authorized the expansion of the coastal zone to include a portion of Ascension Parish. In 2011 the legislature will revisit the issue of the inland boundary of the coastal zone and the program change will become effective. The implementation activities will consist of internal training of staff for processing permits and consistencies in an expanded coastal zone, and expanding data layers used in evaluating them; making adjustments to the automated system that may be needed to handle a larger area and assessing resource needs.

III. Need(s) and Gap(s) Addressed

Identify what priority need the strategy addresses, and explain why the proposed program change or implementation activities are the most appropriate means to address the priority need. This discussion should reference the key findings of the Assessment and explain how the strategy addresses those findings.

The coastal region of Louisiana has changed significantly over the thirty years since federal program approval. In those intervening years, coastal Louisiana has experienced unprecedented land and wetlands loss through subsidence, erosion, and sea level rise. By integrating areas scientifically identified as being highly subject to the effects of coastal processes into a revised and expanded coastal zone, the state will be better able to manage coastal uses in an area more accurately reflecting a true coastal zone through application of enforceable policies and mechanisms of the LCRP. This will enable the state to more effectively implement both the state CMP and the goals and objectives of the Master Plan. This strategy will implement an updated coastal zone for Louisiana which is based on science and socioeconomic factors associated with coastal processes and human activities associated with the coast. As such, this strategy in some measure touches upon all coastal management area issues and needs involved in the LCRP.

IV. Benefit(s) to Coastal Management

Discuss the anticipated effect of the program change or implementation activities including a clear articulation of the scope and value in improved coastal management and resource protection.

By adopting a hierarchical scheme of management based on degree of relationship to coastal processes, the state CMP and LCPs can more effectively implement its enforceable policies over a scientifically defined coastal area and achieve a sustainable coast protecting inhabitants, promoting development, and protecting and restoring habitat. These benefits will be efficiently effected through this implementation strategy by making sure that OCM is fully prepared with the data required to process permits and consistencies in the area added to the coastal zone and adjacent area, that this data and permit processing tools are seamlessly added to the existing electronic processing and tracking mechanism, and that our permit constituency is fully aware of new areas of the coastal zone. As an added benefit to the implementation strategy, it is expected that outreach activities will result in a

more informed public in and near the areas added into the coastal zone with a heightened awareness regarding just how closely the area where they live is associated with the coast even though they may have not been classified as within the state's coastal zone.

V. Likelihood of Success

Discuss the likelihood of attaining the proposed program change and implementation activities. The state or territory should address: 1) the nature and degree of support for pursuing the strategy and the proposed change; and, 2) the specific actions the state or territory will undertake to maintain or build future support for achieving and implementing the program change, including education and outreach activities.

This effort will span two §309 planning periods and the program change will be attained in year 5 of the current period with the proposed implementation strategy of this document occurring during years 1 and 2 of the upcoming period. Because this effort was undertaken at the request of the Louisiana legislature, there is a reasonably high expectation of success. Therefore the proposed implementation should be achievable within the proposed two year implementation period. Some short term staff expansion may be needed to handle increased workload if recent efficiencies are not able to support this. Externally, the program will conduct a series of workshops and other outreach methods to make sure that newly affected public and governmental bodies are fully aware of their responsibilities with respect to permit requirements and consistency determinations with an expanded inland boundary.

VI. Strategy Work Plan

Using the template below, provide a general work plan that includes the major steps necessary for achieving the program change and/or implementing a previously achieved program change. The plan should identify significant projected milestones/outcomes, a schedule for completing the strategy, and budget estimates. If an activity will span two or more years, it can be combined into one entry (i.e., Years 2-3 rather than Year 2 and then Year 3). While the annual outcomes are a useful guide to ensure the strategy remains on track, OCRM recognizes that these benchmarks may change some over the course of the five-year strategy due to unforeseen circumstances. The same holds true for the annual budget estimates. If the state intends to fund implementation activities for the proposed program change, describe those in the plan as well. Further detailing of annual tasks, budgets, benchmarks, and work products will be determined through the annual award negotiation process.

Total Years: 2

Total Budget: \$80,000.00 Staff

Final Outcome(s) and Products: Upon completion of the implementation phase the OCM will have:

1. The necessary data layers for evaluating permit applications and consistency determinations in an expanded coastal zone;
2. Sufficient modifications to the OCM electronic processing system for permits and consistency determinations to handle additional area in the coastal zone;
3. Outreach materials and a constituency sufficiently educated about an expanded coastal zone to be able to interface with OCM; and

4. Sufficient staff resources and operating procedures to process permit applications and consistency determinations through the implementation period.

Year(s): 1 (July 2012 – June 2013)

Description of activities: The most important initial implementation activities would be to provide training to staff for permit/consistency evaluations and necessary enhancements to the software packages for the analysis are in place. The other priority during year 1 would be the outreach and education aspect to both the general public and governmental bodies so that they are aware of their new responsibilities as part of the coastal zone. The legislative changes and time schedule of the legislature is such that the effective date for processing applications in an expanded coastal zone likely would not start before December 2011 and there could be an effective date in the legislation that was even later.

Outcome(s):

1. Acquisition of data layers necessary to evaluate activities in an expanded coastal zone;
2. Enhancements to OCM's automated processing system for permits and consistencies to handle an expanded coastal zone;
3. Constituent workshops held for public stakeholders and governmental bodies; and
4. Internal standard operating procedures reviewed and updated for expanded coastal zone.

Budget: \$40,000.00 staff

Year(s): 2 (July 2013 – June 2014)

Description of activities: During this second year of implementation, OCM staff will be engaged in fully processing permit and consistency applications. Additional staff may be required if workload demands it. Throughout this year management will closely monitor workload and processing quality. Means of additional financing will be investigated if recent efficiencies do not provide sufficient flexibility to handle increases in permit/consistency volume.

Outcome(s): The outcome of the second year of implementation will be a fully trained OCM staff familiar with the areas added to the Louisiana coastal zone and able to process permit, consistency, and compliance material in a timely and efficient manner.

Budget: \$40,000.00 staff

VII. Fiscal and Technical Needs

A. Fiscal Needs: *If 309 funding is not sufficient to carry out the proposed strategy, identify additional funding needs. Provide a brief description of what efforts the applying agency has made, if any, to secure additional state funds from the legislature and/or other sources to support this strategy. This strategy will be funded exclusively with §309 grant funds.*

B. Technical Needs: *If the state does not possess the technical knowledge, skills, or equipment to carry out the proposed strategy, identify these needs. Provide a brief description of what efforts the applying agency has made, if any, to obtain the trained personnel or equipment*

needed (for example, through agreements with other state agencies). The state has experience in establishing programs such as this implementation. IT support, as needed, will be supplied internally within DNR or through contractual services with the assistance of DNR/IT.

VIII. Projects of Special Merit (Optional)

If desired, briefly indicate what PSMs the CMP may wish to pursue to augment this strategy. Any activities that are necessary to achieve the program change or that the state intends to support with baseline funding should be included in the strategy above. The information in this section will not be used to evaluate or rank PSMs and is simply meant to provide the CMPs the option to provide additional information if they choose. PSM descriptions should be kept very brief (e.g., undertake benthic mapping to provide additional data for ocean management planning). Do not do provide detailed project descriptions that would be needed for the PSM competition.

Assisting local coastal parish programs in updating their environmental management units and goals, policies and objectives as a result of a revised Louisiana Coastal Zone Boundary

STRATEGY TITLE: IMPLEMENTATION OF PREVIOUSLY REVISED FEDERAL CONSISTENCY PROCEDURES TO IMPROVE BENEFICIAL USE OF DREDGED MATERIAL

I. Issue Area(s)

The proposed strategy or implementation activities will support the following priority (high or medium) enhancement area(s) (*check all that apply*):

- | | |
|--|---|
| <input type="checkbox"/> Aquaculture | <input type="checkbox"/> Cumulative and Secondary Impacts |
| <input type="checkbox"/> Energy & Government Facility Siting | <input checked="" type="checkbox"/> Wetlands |
| <input type="checkbox"/> Coastal Hazards | <input type="checkbox"/> Marine Debris |
| <input type="checkbox"/> Ocean/Great Lakes Resources | <input type="checkbox"/> Public Access |
| <input type="checkbox"/> Special Area Management Planning | |

II. Program Change Description

A. The proposed strategy will result in, or implement, the following type(s) of program changes (*check all that apply*):

- A change to coastal zone boundaries;
- New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;
- New or revised local coastal programs and implementing ordinances;
- New or revised coastal land acquisition, management, and restoration programs;
- New or revised Special Area Management Plans (SAMP) or plans for Areas of Particular Concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,
- New or revised guidelines, procedures and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government and other agencies that will result in meaningful improvements in coastal resource management.

B. *Describe the proposed program change(s) or activities to implement a previously achieved program change. If the strategy will only involve implementation activities, briefly describe the program change that has already been adopted, and how the proposed activities will further that program change. (Note that implementation strategies are not to exceed two years.)*

Previous work: New regulations for beneficial use were adopted by the OCM in 2009 for Coastal Use Permit applications which involve dredging. Four options provide flexibility in meeting the program's beneficial use requirements: direct beneficial use of the dredged material, providing material to an approved coastal restoration project, using dredged material at another location to accomplish the same amount of beneficial use, or making a voluntary contribution to the Coastal Resources Trust Fund.

Under the previous strategy, the OCM has contracted with the Louisiana Sea Grant Law and Policy Program (SGLPP) to analyze the 2009 regulations, existing enforceable policies, and

past actions taken under federal consistency by Louisiana and other states. The SGLPP will propose specific, detailed protocols explaining how the state may maximize the beneficial use of dredged material. Under the previous strategy, it is anticipated that these protocols will be adopted as enforceable policies through a program change, which will extend the alternatives for beneficial use to all dredging projects in the coastal zone. Negotiations with federal agencies for Memoranda of Agreement will be undertaken as part of the previous strategy, clarifying alternatives, policies and responsibilities of the agencies involved. If agreements are not reached, negotiations will continue as part of the implementation phase.

Implementation: During the implementation phase the OCM will develop, codify and apply the necessary internal office policies, procedures, and processes to ensure the appropriate application of, and compliance with, new enforceable policies. Outreach to the public, and to federal agencies conducting or regulating dredging projects, will be achieved through mailings, electronic notifications, and/or publication on the OCM web site as appropriate. Efforts to develop Memoranda of Agreement will continue if necessary, and/or Memoranda of Agreement with additional federal agencies may be sought.

III. Need(s) and Gap(s) Addressed

Identify what priority need the strategy addresses, and explain why the proposed program change or implementation activities are the most appropriate means to address the priority need. This discussion should reference the key findings of the Assessment and explain how the strategy addresses those findings.

Millions of cubic yards of sediment that could be restoring vanishing wetlands are lost to the Louisiana coastal system every year from non-beneficial disposal. The largest component of that wasted material is through non-beneficial use of dredged material conducted by federal agencies in carrying out their mandated missions.

IV. Benefit(s) to Coastal Management

Discuss the anticipated effect of the program change or implementation activities including a clear articulation of the scope and value in improved coastal management and resource protection.

The new policies will increase the performance of our beneficial use program, and the framework of the regulations or protocols will also better allow for the better use of the material to create and restore wetlands.

V. Likelihood of Success

Discuss the likelihood of attaining the proposed program change and implementation activities. The state or territory should address: 1) the nature and degree of support for pursuing the strategy and the proposed change; and, 2) the specific actions the state or territory will undertake to maintain or build future support for achieving and implementing the program change, including education and outreach activities.

Success in implementing new and revised enforceable policies is high. Success in significantly increasing beneficial use of dredged material will largely depend on support

from federal agencies.

VI. Strategy Work Plan

Using the template below, provide a general work plan that includes the major steps necessary for achieving the program change and/or implementing a previously achieved program change. The plan should identify significant projected milestones/outcomes, a schedule for completing the strategy, and budget estimates. If an activity will span two or more years, it can be combined into one entry (i.e., Years 2-3 rather than Year 2 and then Year 3). While the annual outcomes are a useful guide to ensure the strategy remains on track, OCRM recognizes that these benchmarks may change some over the course of the five-year strategy due to unforeseen circumstances. The same holds true for the annual budget estimates. If the state intends to fund implementation activities for the proposed program change, describe those in the plan as well. Further detailing of annual tasks, budgets, benchmarks, and work products will be determined through the annual award negotiation process.

Total Years: 2

Total Budget: \$74,800.00

Final Outcome(s) and Products:

- 1) New and revised office policies, Standard Operating Procedures, and day-to-day work processes for the processing and review of consistency determinations and certifications in which beneficial use is required
- 2) Outreach to affected federal agencies and stakeholders
- 3) Memoranda of Agreement with federal agencies negotiated (if necessary).
- 4) Enforceable policies applied to consistency determinations and certifications, and subsequent necessary legal actions.

Year(s): Years 2 & 3 (2012-2014)

Description of activities: During the first and second years, implementation procedures will be developed by OCM staff and codified in the Consistency Section's office policy, Standard Operating Procedures, and day-to-day work processes. Outreach and coordination with federal agencies and applicants will be conducted via public notices, direct mailings, meetings, and notices in newsletters, the Department web site, and press releases, as appropriate. On final management approval of the new office policies, Standard Operating Procedures and work processes, staff will begin processing consistency determinations and certifications utilizing the new process. If not achieved under the previous strategy, Memoranda of Agreement will be negotiated with appropriate federal agencies to clarify their Consistency obligations, available alternatives, procedural guidance, and standards of review.

Budget

Year 2: \$32,400.00 staff

Year 3: \$42,400.00 staff

Outcome(s):

1. New and revised office policies and SOPs.

2. Federal agencies and applicants will be aware of all new requirements and available alternatives.
3. Memorandum of Agreement with federal agencies (if necessary).
4. Consistency staff will apply new and revised enforceable policies to all appropriate consistency determinations and certifications, allowing federal agencies and applicants more options for complying with the goal of maximum beneficial use of dredged material. Consistency determinations and certifications will include increased beneficial use of dredged material.

VII. Fiscal and Technical Needs

A. Fiscal Needs: *If 309 funding is not sufficient to carry out the proposed strategy, identify additional funding needs. Provide a brief description of what efforts the applying agency has made, if any, to secure additional state funds from the legislature and/or other sources to support this strategy*

309 funds should be sufficient to carry out this proposed strategy.
Budget requests may be revised based on cost of legal actions.

310 Technical Needs: *If the state does not possess the technical knowledge, skills, or equipment to carry out the proposed strategy, identify these needs. Provide a brief description of what efforts the applying agency has made, if any, to obtain the trained personnel or equipment needed (for example, through agreements with other state agencies).*

The OCM has the technical resources to implement, oversee, and maintain this program change. OCM anticipates and contemplates that there will be the need of additional legal assistance in enforcing the policies of the LCRP, as provided for in the CZMA. Success of this effort will also be in some measure dependent on OCM receiving the full support and effort of NOAA in working with the federal agencies involved.

VIII. Projects of Special Merit (Optional)

If desired, briefly indicate what PSMs the CMP may wish to pursue to augment this strategy. Any activities that are necessary to achieve the program change or that the state intends to support with baseline funding should be included in the strategy above. The information in this section will not be used to evaluate or rank PSMs and is simply meant to provide the CMPs the option to provide additional information if they choose. PSM descriptions should be kept very brief (e.g., undertake benthic mapping to provide additional data for ocean management planning). Do not do provide detailed project descriptions that would be needed for the PSM competition.

STRATEGY TITLE: NEW MITIGATION REGULATIONS FOR UNAVOIDABLE IMPACTS DUE TO PERMITTED ACTIVITIES IN COASTAL LOUISIANA

I. Issue Area(s)

The proposed strategy or implementation activities will support the following priority (high or medium) enhancement area(s) (*check all that apply*):

- | | |
|--|---|
| <input type="checkbox"/> Aquaculture | <input type="checkbox"/> Cumulative and Secondary Impacts |
| <input type="checkbox"/> Energy & Government Facility Siting | <input checked="" type="checkbox"/> Wetlands |
| <input type="checkbox"/> Coastal Hazards | <input type="checkbox"/> Marine Debris |
| <input type="checkbox"/> Ocean/Great Lakes Resources | <input type="checkbox"/> Public Access |
| <input type="checkbox"/> Special Area Management Planning | |

II. Program Change Description

A. The proposed strategy will result in, or implement, the following type(s) of program changes (*check all that apply*):

- A change to coastal zone boundaries;
- New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;
- New or revised local coastal programs and implementing ordinances;
- New or revised coastal land acquisition, management, and restoration programs;
- New or revised Special Area Management Plans (SAMP) or plans for Areas of Particular Concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,
- New or revised guidelines, procedures and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government and other agencies that will result in meaningful improvements in coastal resource management.

B. *Describe the proposed program change(s) or activities to implement a previously achieved program change. If the strategy will only involve implementation activities, briefly describe the program change that has already been adopted, and how the proposed activities will further that program change. (Note that implementation strategies are not to exceed two years.)* The OCM will develop new rules and regulations for its regulatory mitigation program. The OCM currently requires compensatory mitigation for unavoidable impacts to coastal wetland habitats and other coastal resources. The last time a revision was made to the State's mitigation regulations was at the time of initial promulgation in 1994. Current regulations address only mitigation for wetland impacts and those regulations are grossly outdated. The State will develop new mitigation regulations and then promulgate these newly developed mitigation regulations.

III. Need(s) and Gap(s) Addressed

Identify what priority need the strategy addresses, and explain why the proposed program change or implementation activities are the most appropriate means to address the priority need. This discussion should reference the key findings of the Assessment and explain how the strategy addresses those findings. Wetland and coastal habitat loss is identified at a high risk level in the current 309 assessment. Federal rules and regulations for mitigating for aquatic resources losses due to permitted activities have been revised several times since OCM has revised its regulations for mitigation. This latest revision to the Federal Rules for Mitigation occurred in 2008. The OCM must revise its current mitigation regulations to become more compatible with the latest revision to the Federal Rules for Mitigation and to better complement the State's Comprehensive Master Plan for a Sustainable Coast. The current hierarchy/priorities for mitigation must be revised to allow for the State's mitigation program to better complement the State's Master Plan document and the new federal regulations. Statutory revisions to the State's mitigation laws may also be required and should be considered to be a part of this effort.

Additionally, there is currently a need to allow for the use of more up-to-date Wetland Value Assessment (WVA) models. The OCM is currently using 1994 WVA models to assess habitat impacts and benefits for unavoidable losses due to permitted activities.

IV. Benefit(s) to Coastal Management

Discuss the anticipated effect of the program change or implementation activities including a clear articulation of the scope and value in improved coastal management and resource protection. Once revised mitigation regulations have been drafted and the State undertakes the rule making process, the new mitigation rules will allow for more consistent and transparent permitting process, especially in regard to mitigating for unavoidable losses to wetlands and other coastal habitats. In general, these new mitigation regulations, procedures for mitigation review and assessment, and other associated landowner mitigation issues will lead to a more efficient and effective permitting process. The new mitigation regulations will also change how mitigation is tracked and monitored, reducing the burden on limited public resources. The new mitigation regulations should allow for more flexible options and opportunities for sustainable mitigation in coastal Louisiana. They should also provide for mitigation projects that have a more significant and synergistic impact on building and sustaining our coastal habitats.

V. Likelihood of Success

Discuss the likelihood of attaining the proposed program change and implementation activities. The state or territory should address: 1) the nature and degree of support for pursuing the strategy and the proposed change; and, 2) the specific actions the state or territory will undertake to maintain or build future support for achieving and implementing the program change, including education and outreach activities. The likelihood of success is high due to the fact that the OCM has recently completed a year long evaluation of its current mitigation program. The OCM has the data and information required to support the required regulation change and is poised to begin drafting new regulations and conducting associated public outreach and awareness activities. The OCM will aim to streamline the permitting process and reduce costs associated with mitigation which will certainly be of benefit to the State and stakeholders.

VI. Strategy Work Plan

Using the template below, provide a general work plan that includes the major steps necessary for achieving the program change and/or implementing a previously achieved program change. The plan should identify significant projected milestones/outcomes, a schedule for completing the strategy, and budget estimates. If an activity will span two or more years, it can be combined into one entry (i.e., Years 2-3 rather than Year 2 and then Year 3). While the annual outcomes are a useful guide to ensure the strategy remains on track, OCRM recognizes that these benchmarks may change some over the course of the five-year strategy due to unforeseen circumstances. The same holds true for the annual budget estimates. If the state intends to fund implementation activities for the proposed program change, describe those in the plan as well. Further detailing of annual tasks, budgets, benchmarks, and work products will be determined through the annual award negotiation process.

Total Years: 5

Total Budget: \$641,200.00

Final Outcome(s) and Products:

The OCM will draft and promulgate revised mitigation regulations and/or statutes (if required) for the State's mitigation program. These revised regulations will create more flexible options for mitigation in coastal Louisiana and restructure the current priorities regarding mitigation priorities options.

Year(s): Year 1

Description of activities:

OCM staff will begin drafting revised mitigation regulations and mitigation statutes (if required) and conduct a public outreach effort to notify the public of the changes that will be implemented. OCM will assign staff resources to begin drafting and/or editing these regulations and to facilitate and participate in meetings with other agencies, interested stakeholders and other OCM personnel to develop these regulations.

Outcome(s):

OCM will create an initial draft of revised mitigation regulations and statutes (if required).

OCM will begin a public outreach effort to inform the public and stakeholder groups of proposed changes to the mitigation regulations.

Budget:

\$101,200.00 OCM staff

Year(s): Years 2-3

Description of activities:

OCM Staff will work to finalize the drafting of revised mitigation regulations and mitigation statutes (if required).

OCM will fully complete the rulemaking process, including promulgating revised regulations and holding public meetings required by the rulemaking process.

Outcome(s):

The OCM will continue its public outreach and education activities. The revised mitigation regulations will be published in the Louisiana State Register. Newly revised regulations for mitigation will become part of the Louisiana Administrative Code.

Budget:

\$160,000.00 OCM staff annually (total for two years \$320,000.00)

Year(s): Years 4–5 Implementation

Description of activities: OCM will fully implement the new mitigation rules and procedures. OCM staff will be trained in the new rules and regulations for mitigating for unavoidable losses to wetlands and coastal habitats and resources due to permitted activities.

Outcome(s):

The revised mitigation regulations will go into effect.

The State will have a reduced burden in its public resources in regard to monitoring and tracking of mitigation.

OCM will continue its public outreach efforts after the new regulations have been adopted to continue to inform stakeholders of the newly implemented regulations.

Budget:

\$110,000.00 OCM staff annually (total \$220,000.00)

VII. Fiscal and Technical Needs

A. Fiscal Needs: *If 309 funding is not sufficient to carry out the proposed strategy, identify additional funding needs. Provide a brief description of what efforts the applying agency has made, if any, to secure additional state funds from the legislature and/or other sources to support this strategy.* The OCM will not require additional funding.

B. Technical Needs: *If the state does not possess the technical knowledge, skills, or equipment to carry out the proposed strategy, identify these needs. Provide a brief description of what efforts the applying agency has made, if any, to obtain the trained personnel or equipment needed (for example, through agreements with other state agencies).* The OCM has the technical resources to accomplish this task.

VIII. Projects of Special Merit (Optional)

If desired, briefly indicate what PSMs the CMP may wish to pursue to augment this strategy. Any activities that are necessary to achieve the program change or that the state intends to support with baseline funding should be included in the strategy above. The information in this section will not be used to evaluate or rank PSMs and is simply meant to provide the CMPs the option to provide additional information if they choose. PSM descriptions should be kept very brief (e.g., undertake benthic mapping to provide additional data for ocean management planning). Do not do provide detailed project descriptions that would be needed for the PSM competition.

STRATEGY TITLE: ADDRESSING RISK AND HAZARDS THROUGH THE LCP COMPONENT OF THE LCRP

I. Issue Area(s)

The proposed strategy or implementation activities will support the following priority (high or medium) enhancement area(s) (*check all that apply*):

- | | |
|--|---|
| <input type="checkbox"/> Aquaculture | <input type="checkbox"/> Cumulative and Secondary Impacts |
| <input type="checkbox"/> Energy & Government Facility Siting | <input type="checkbox"/> Wetlands |
| <input checked="" type="checkbox"/> Coastal Hazards | <input type="checkbox"/> Marine Debris |
| <input type="checkbox"/> Ocean/Great Lakes Resources | <input type="checkbox"/> Public Access |
| <input type="checkbox"/> Special Area Management Planning | |

II. Program Change Description

A. The proposed strategy will result in, or implement, the following type(s) of program changes (*check all that apply*):

- A change to coastal zone boundaries;
- New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;
- New or revised local coastal programs and implementing ordinances;
- New or revised coastal land acquisition, management, and restoration programs;
- New or revised Special Area Management Plans (SAMP) or plans for Areas of Particular Concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,
- New or revised guidelines, procedures and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government and other agencies that will result in meaningful improvements in coastal resource management.

B. *Describe the proposed program change(s) or activities to implement a previously achieved program change. If the strategy will only involve implementation activities, briefly describe the program change that has already been adopted, and how the proposed activities will further that program change. (Note that implementation strategies are not to exceed two years.)* The program change will focus on the Local Coastal Program (LCP) component of the LCRP and result in new or revised procedures, polices, legislation and/or local ordinances to assist in hazard risk reduction and avoidance of inconsistent commonly-held risk reduction strategies. The first step will be for OCM to perform a gap analysis to determine ongoing or planned efforts to reduce risk by various entities and the LCPs, and determine where gaps might occur. Part of this gap analysis will be an analysis using information/data from the St. Tammany Local Coastal Program (as a trial parish), chenier and at-risk landforms task, the Southern Climate Impacts Planning Program (SCIPP), the Louisiana Sea Grant Law and Policy Program (SGLPP), the Southern Regional Climate Center (SRCC) the Center for Planning Excellence (CPEX), the Louisiana Department of Environmental Quality (LDEQ), the Office of Coastal Protection and Restoration (OCPR), Governor's Office of Homeland Security (GOSHEP) and other appropriate stakeholders in Louisiana regarding planning, policies,

ordinances, rules and regulations that address hazard risk reduction. The data gathering/analysis will focus on ways to make Louisiana coastal communities more resilient to coastal hazards from increasing coastal storms probabilities and sea level rise through changes to LCP policies or other regulatory changes. OCM will also incorporate the results of the work done under the previous 309 five year strategy regarding the importance to coastal resiliency of protecting cheniers and other similar at-risk land forms from destruction. The OCM will also consider information gathered from the Louisiana Coastal Hazard Mitigation Guidebook. OCM will prepare a white paper detailing recommendations and gaps identified from the analysis and other information sources. The white paper will identify the role of LCPs in hazard resiliency and recommend new or revised policies or other regulatory changes that the LCPs can adopt to improve resiliency. OCM may hire a contractor for various parts of this task.

Based on the results of the white paper and the resulting recommendations, OCM and/or a contractor will work with a representative LCP, St. Tammany Parish Local Coastal Management Program, to formulate and incorporate a new ordinance, procedure and/or policy for use in the review of local concern applications for development in the St. Tammany Parish coastal zone. Implementation of the new program change will be done by St. Tammany Parish and incorporated into their daily operating procedures for development applications of local concern. Once the local program revision procedures are finalized and implementation begun, the OCM will work with the other approved and developing local coastal programs according to the recommendations in the white paper and the steps taken by St. Tammany LCP.

III. Need(s) and Gap(s) Addressed

Identify what priority need the strategy addresses, and explain why the proposed program change or implementation activities are the most appropriate means to address the priority need. This discussion should reference the key findings of the Assessment and explain how the strategy addresses those findings.

Flooding, coastal storm surge, shoreline erosion, sea level rise and land subsidence have all been identified at high risk level in this 309 assessment portion of the 2011-2015 plan. Improved coastal resiliency and hazard mitigation guidelines, procedures and policy documents and/or new legislation have also been identified as priority needs. The increasing number and intensity of coastal storms, and other natural hazards are putting more people and property at risk along Louisiana's coast with grave implications for human safety and the economic and environmental health of coastal areas.

IV. Benefit(s) to Coastal Management

Discuss the anticipated effect of the program change or implementation activities including a clear articulation of the scope and value in improved coastal management and resource protection.

We anticipate that this strategy will aid OCM and coastal parish officials and LCP administrators in making better informed regulatory and planning decisions regarding development in coastal hazard areas by providing an improved and farther reaching

understanding of best management policies, practices and principles to be used as a basis for growth and development in Louisiana's coastal areas. This proposed 309 strategy will lead to a new policy paper that will provide guidance on regulatory options for coastal hazard permitting for the LCPs. This proposed strategy will also result in a coastal use permit review and issuance policy change and implementation in St. Tammany Parish at the local level for the permitting of growth and development and ultimately all approved local coastal management programs.

V. Likelihood of Success

Discuss the likelihood of attaining the proposed program change and implementation activities. The state or territory should address: 1) the nature and degree of support for pursuing the strategy and the proposed change; and, 2) the specific actions the state or territory will undertake to maintain or build future support for achieving and implementing the program change, including education and outreach activities.

Because of the importance of the Louisiana Master Plan and its recommendations, we feel that there is a high likelihood of success. The Louisiana's Master Plan 2007 stated that "Development has expanded into low-lying areas in Louisiana in the past; serving to increase overall levels of risk. Such an outcome would be counter to Louisiana's Comprehensive Master Plan for a Sustainable Coast" and "To this end, the Louisiana Coastal Resources Program and the Louisiana Coastal Zone Management Plan should be strengthened." This will strengthen the LCP component of the LCRP. In addition, coastal community resiliency and risk reduction will be priority issues in the new "State Master Plan 2012" being developed now.

Due to the significance and relevance of the intelligent and resilient rebuilding of coastal Louisiana, OCM anticipates strong statewide, local parish and local community support of this endeavor.

VI. Strategy Work Plan

Using the template below, provide a general work plan that includes the major steps necessary for achieving the program change and/or implementing a previously achieved program change. The plan should identify significant projected milestones/outcomes, a schedule for completing the strategy, and budget estimates. If an activity will span two or more years, it can be combined into one entry (i.e., Years 2-3 rather than Year 2 and then Year 3). While the annual outcomes are a useful guide to ensure the strategy remains on track, OCRM recognizes that these benchmarks may change some over the course of the five-year strategy due to unforeseen circumstances. The same holds true for the annual budget estimates. If the state intends to fund implementation activities for the proposed program change, describe those in the plan as well. Further detailing of annual tasks, budgets, benchmarks, and work products will be done through the annual award negotiation process.

Total Years: 5

Total Budget: \$679,800.00

Final Outcome(s) and Products:

- Development of a white paper describing the issues and detailing recommendations from the coordination meetings and information sources, and also describing the recommended approach of new or revised procedures, policies, legislation and/or local ordinances LCPs can pursue in hazard risk reduction, coastal resiliency and avoidance of unwise development
- New policy and permit procedure developed and implemented by the St. Tammany Parish Local Coastal Management Program addressing resiliency, at risk land forms and hazard mitigation throughout the Louisiana coastal area
- In addition, coordination with the other approved and developing LCPs to incorporate similar changes into their programs

Year(s): 1 (2011-12)

Description of activities: Intensive coordination and numerous meetings with such stakeholders as SCIPP, CPEX, SGLPP, SRCC, LDEQ, OCPR, GOHSEP, and St. Tammany Parish LCP to research and identify ways to make Louisiana coastal communities more resilient towards increasing coastal storms through improved regulatory guidelines, and/or new procedures, and policies.

Outcome(s): Draft white paper will be prepared describing the issues and detailing gaps and recommendations from the coordination meetings and information sources.

Budget:

Contract – \$50,000

Staff oversight – \$182,400.00

Year(s): 2 (2012-13)

Description of activities: Final white paper identifying the role that the local coastal programs can have in local hazard risk reduction, resiliency, and management of developmental activities in existing or potential hazard areas, and recommended regulatory actions/options for avoidance of unwise development available through the LCPs. Draft permitting procedures developed by St. Tammany Parish

Outcome(s): 1) Final white paper and 2) draft permit procedures for St. Tammany Local Coastal Management Program regarding more resilient residential and commercial development and protection of at risk landforms. The draft process for permitting development by the St. Tammany Parish Local Coastal Program will be submitted to NOAA.

Budget:

Staff oversight – \$50,000

St Tammany Parish - \$10,000

Contractor - \$20,000

Year(s): 3 (2013-14)

Description of activities: Finalize the procedures for St. Tammany, adoption of the program change by the local program, begin implementation of the new permit procedures; and outreach by St. Tammany informing the public of the new requirements.

Outcome(s): 1) New permit review procedures for hazard risk reduction in the St. Tammany Parish Coastal Zone; adoption of the program change by the St. Tammany Parish. 2) Implementation of the new procedures

Budget:

Staff oversight – \$70,000.00

St Tammany \$10,000.00

Year(s): 4 and 5(2014-16)

Description of activities: Implementation by St. Tammany will continue in Year 4; additional outreach plan and outreach aids and materials developed; OCM will continue working with other LCP parishes to incorporate similar changes to their programs. In addition to working with all of the LCPs to incorporate similar changes to their programs, OCM will try to target a specific LCP to work with during these two years.

Outcome(s): OCM will begin to work with the other LCPs to incorporate similar changes

Budget:

year 4:

Staff oversight - \$177,400

St Tammany - \$10,000

Year 5 - \$100,000.00

VII. Fiscal and Technical Needs

A. Fiscal Needs: *If 309 funding is not sufficient to carry out the proposed strategy, identify additional funding needs. Provide a brief description of what efforts the applying agency has made, if any, to secure additional state funds from the legislature and/or other sources to support this strategy.*

309 Funds should be sufficient to carry out this proposed strategy.

B. Technical Needs: *If the state does not possess the technical knowledge, skills, or equipment to carry out the proposed strategy, identify these needs. Provide a brief description of what efforts the applying agency has made, if any, to obtain the trained personnel or equipment needed (for example, through agreements with other state agencies).*

OCM, CPEX, SGLPP and SCIPP should have sufficient technical expertise to assist OCM in identifying regulatory options available to address development in hazardous areas. OCM or St Tammany may need to contract out the actual fabrication/reproduction of some or all of the outreach and education aids.

VIII. Projects of Special Merit (Optional)

If desired, briefly indicate what PSMs the CMP may wish to pursue to augment this strategy. Any activities that are necessary to achieve the program change or that the state intends to support with baseline funding should be included in the strategy above. The information in this

section will not be used to evaluate or rank PSMs and is simply meant to provide the CMPs the option to provide additional information if they choose. PSM descriptions should be kept very brief (e.g., undertake benthic mapping to provide additional data for ocean management planning). Do not do provide detailed project descriptions that would be needed for the PSM competition.

OCM proposes that a project of special merit will be submitted in order to work with the other approved or developing LCPs to incorporate similar hazard risk reduction procedures into their LCPs. This will involve salary for OCM staff and some additional compensation for the LCPs.

Final

STRATEGY TITLE: NEW PERMIT PROCEDURES FOR AVOIDING AND MITIGATING OIL AND GAS FACILITY SITING CONFLICTS

I. Issue Area(s)

The proposed strategy or implementation activities will support the following priority (high or medium) enhancement area(s) (*check all that apply*):

- | | |
|---|---|
| <input type="checkbox"/> Aquaculture | <input type="checkbox"/> Cumulative and Secondary Impacts |
| <input checked="" type="checkbox"/> Energy & Government Facility Siting | <input type="checkbox"/> Wetlands |
| <input type="checkbox"/> Coastal Hazards | <input type="checkbox"/> Marine Debris |
| <input type="checkbox"/> Ocean/Great Lakes Resources | <input type="checkbox"/> Public Access |
| <input type="checkbox"/> Special Area Management Planning | |

II. Program Change Description

A. The proposed strategy will result in, or implement, the following type(s) of program changes (*check all that apply*):

- A change to coastal zone boundaries;
- New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;
- New or revised local coastal programs and implementing ordinances;
- New or revised coastal land acquisition, management, and restoration programs;
- New or revised Special Area Management Plans (SAMP) or plans for Areas of Particular Concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,
- New or revised guidelines, procedures and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government and other agencies that will result in meaningful improvements in coastal resource management.

B. *Describe the proposed program change(s) or activities to implement a previously achieved program change. If the strategy will only involve implementation activities, briefly describe the program change that has already been adopted, and how the proposed activities will further that program change. (Note that implementation strategies are not to exceed two years.)* The OCM will develop new permit procedures that will be used to evaluate potential conflicts between oil and gas facilities (pipeline and platform) and other projects and to require avoidance or mitigation of those conflicts. Permit analysts will use a GIS map and database of oil and gas facility locations to determine: 1) whether a proposed project will conflict with an existing energy facility, or 2) whether a proposed energy facility will conflict with existing activities or uses, such as fairways and anchorage areas, navigation channels, or flood control and restoration features. If potential conflicts are identified, the OCM may require alternative

siting of the proposed project, changes to the design of the proposed project, or other changes to the project to avoid or mitigate facility siting. The review will require a GIS query be developed to identify nearby navigation and infrastructure features of concern. The permit analyst will review the query results, determine the level and manner of potential conflict, then formulate options for minimizing any conflicts that can be negotiated with the applicant. Alternative techniques for installation and alternative routes and locations will be addressed. This may also lead to OCM encouraging and initiating cooperative efforts between and among oil and gas companies. The final alternative selected will determine the type of authorization issued.

An additional change to be implemented the first year is that for all applications for sites that store or produce oil, a certification will be required that the applicant is aware, knowledgeable and will remain in compliance with all local, state and Federal oil spill prevention laws and regulations. In Louisiana, three different agencies handle varying aspects of oil spill prevention. In order to meet our Coastal Program guidelines, the applicant must design and construct sites using best practical techniques to prevent the release of pollutants. The applicant must also certify and attest that effective emergency or contingency plans are developed and that they are and will remain in compliance. The application form will be amended to include this attestation and a list of applicable spill prevention laws and regulations must be submitted by the applicant with the application prior to permit issuance. This will be accomplished via change to the application form(s) and a change in policy and permit review procedures.

The proposed activity will require an update and expansion of the existing gas platform database. The OCM has limited existing baseline data for this oil and gas platform mapping in the offshore waters, but needs the platform locations in the inland bays, lakes and marshes.

Although not a program change, the data will also be used to inform emergency responders and in support of response efforts to energy facility disasters such as oil spills and pipeline leaks. OCM will coordinate with other DNR sections, other resource agencies, response agencies and industry groups to establish communication channels for data sharing and use in emergency situations. This work may lead to an informal plan, procedure or MOU.

III. Need(s) and Gap(s) Addressed

Identify what priority need the strategy addresses, and explain why the proposed program change or implementation activities are the most appropriate means to address the priority need. This discussion should reference the key findings of the Assessment and explain how the strategy addresses those findings. Currently a complete oil and gas platform location map or data set does not exist. The issue of mapping existing and future oil and gas infrastructure as potential coastal hazards is a paramount one. This data set will be critical in mapping the locations of the structures that produce and store large amounts of oil and gas. There is no current map, hardcopy or digital, collectively of these oil and gas platform locations. As an agency regulating activities in the coastal zone, OCM recognizes the need for a database consisting of tools that can aid regulators and planners in making informed decisions regarding potential coastal siting conflicts and hazards. This will lead to new and improved procedures for permit review and a more efficient and effective permitting process.

IV. Benefit(s) to Coastal Management

Discuss the anticipated effect of the program change or implementation activities including a clear articulation of the scope and value in improved coastal management and resource protection. As an agency regulating activities in the coastal zone, DNR/OCM recognized the need for a database consisting of tools that can aid regulators, planners, and restoration implementers in making informed decisions regarding emergency planning and response, facility and project siting, etc. This mapping effort will memorialize known locations of on-the-ground locations of oil and gas platforms. This data set can be utilized by the permitting and mitigation staff during the permitting process and can even be added as a sensitive feature on the State's electronic permitting system. This will lead to new and improved procedures for permit review and a more efficient and effective permitting process.

V. Likelihood of Success

Discuss the likelihood of attaining the proposed program change and implementation activities. The state or territory should address: 1) the nature and degree of support for pursuing the strategy and the proposed change; and, 2) the specific actions the state or territory will undertake to maintain or build future support for achieving and implementing the program change, including education and outreach activities. This task is likely to succeed because the data should be readily obtainable and the necessity for the information is of grave public concern. This information will aid regulatory agency personnel in providing direction to coastal users on the issue of oil and gas platform locations and provide for increased safety to coastal residents. The OCM has experience implementing improved permitting review protocols developed via the acquisition of improved cartographic resources and does not envision any problems implementing the new procedure.

VI. Strategy Work Plan

Using the template below, provide a general work plan that includes the major steps necessary for achieving the program change and/or implementing a previously achieved program change. The plan should identify significant projected milestones/outcomes, a schedule for completing the strategy, and budget estimates. If an activity will span two or more years, it can be combined into one entry (i.e., Years 2-3 rather than Year 2 and then Year 3). While the annual outcomes are a useful guide to ensure the strategy remains on track, OCRM recognizes that these benchmarks may change some over the course of the five-year strategy due to unforeseen circumstances. The same holds true for the annual budget estimates. If the state intends to fund implementation activities for the proposed program change, describe those in the plan as well. Further detailing of annual tasks, budgets, benchmarks, and work products will be determined through the annual award negotiation process.

Total Years: 5

Total Budget: \$491,200.00

Final Outcome(s) and Products:

1) A new established office policy and procedure for evaluating energy facility conflicts and requiring avoidance or mitigation of those conflicts; updated "Standard Operating Procedures" for conducting permit application review; and changes to the application form.

This includes the change to require attestation by applicants of compliance with spill prevention laws.

- 2) A GIS database and map of oil and gas facility locations
- 3) Plan, procedure or MOU with other agencies and industry for data sharing and use during disasters such as oil spills and periods of tropical cyclone activity.

Year(s): Year 1 (2011 – 2012)

Description of activities: Establish a scope of services and execute the contract for services. An MOU with the DNR Office of Conservation (OC) will be negotiated to coordinate the two offices staff and information. The Office of Conservation has field agents that inspect oil and gas facilities and a cooperative endeavor will be required for OCM staff and contractors to coordinate with the Office of Conservation staff and compile a complete dataset over a year's time period. The contractor will review existing datasets, develop plans to normalize and consolidate the data, and establish the GIS database. OCM staff will work with the contractor and oversee the project.

OCM Staff will work to change and document policy and procedures to require applicants to attest that they have knowledge of and are in compliance with all spill prevention and containment laws and regulations. They must submit the list of applicable laws and regulations as part of the permit file.

Outcome(s):

Execute a contract

Updated SOP for permit review regarding oil spill prevention and containment and application documents.

Develop an MOU for cooperative effort with the DNR Office of Conservation

Develop a GIS database structure

Budget:

Contract – \$20,000.00

Staff oversight – \$81,200.00

Year(s): Year 2 (2012 – 2013)

Description of activities: The data will be collected by the contractor with the oversight and assistance of OCM staff. This will involve a review of the existing data (facility locations) from OCM and Office of Conservation (OC); comparison of this data with aerial photography; coordination with OCM and OC field staff to verify and/or collect additional field data. All data will be input and maintained in the database by OCM personnel.

Outcome(s):

Data analysis and verification in office

Data verified and collected via field inspection

Data input and maintained by OCM staff

Budget:

Contract \$40,000.00

Staff: \$50,000.00

Year(s): Year 3 (2013 – 2014)

Description of activities: The data from year 2 will be continue to be collected by the contractor with the oversight and assistance of OCM staff. This continued work will involve a review of the existing data (facility locations) from OCM and Office of Conservation (OC); comparison of this data with aerial photography; coordination with OCM and OC field staff to verify and/or collect additional field data. All data will be input and maintained in the database by OCM personnel. OCM permitting staff will develop the new permitting procedures incorporating the oil and gas platform location database and map that describe how to identify and evaluate potential conflicts between projects/activities and oil and gas facilities and what actions can be required to avoid or mitigate those conflicts.

Outcome(s):

Data analysis and verification in office
Data verified and collected via field inspection
New Permitting procedures developed

Budget:

Contract - \$20,000.00

Staff - \$60,000.00

Year(s): Year 4-5 (2014 – 2016) Implementation

Description of activities: The OCM permitting staff will implement the new permitting procedures incorporating the oil and gas platform location database and map that describe how to identify and evaluate potential conflicts between projects/activities and oil and gas facilities and what actions can be required to avoid or mitigate those conflicts. OCM will coordinate with other DNR sections, other resource agencies, response agencies and industry groups to establish communication channels for data sharing and use in emergency situations and in preparation for hurricane impacts. This work may lead to an informal plan, procedure or MOU.

Outcome(s):

Database updated and maintained by OCM staff
New Permitting procedures implemented
Emergency preparation and response planning executed

Budget:

Staff - \$110,000.00 annually

VII. Fiscal and Technical Needs

A. Fiscal Needs: *If 309 funding is not sufficient to carry out the proposed strategy, identify additional funding needs. Provide a brief description of what efforts the applying agency has made, if any, to secure additional state funds from the legislature and/or other sources to support this strategy. No addition funding should be required to accomplish this task.*

B. Technical Needs: *If the state does not possess the technical knowledge, skills, or equipment to carry out the proposed strategy, identify these needs. Provide a brief description of what efforts the applying agency has made, if any, to obtain the trained personnel or equipment needed (for example, through agreements with other state agencies). The OCM has the assets to accomplish this task.*

VIII. Projects of Special Merit (Optional)

If desired, briefly indicate what PSMs the CMP may wish to pursue to augment this strategy. Any activities that are necessary to achieve the program change or that the state intends to support with baseline funding should be included in the strategy above. The information in this section will not be used to evaluate or rank PSMs and is simply meant to provide the CMPs the option to provide additional information if they choose. PSM descriptions should be kept very brief (e.g., undertake benthic mapping to provide additional data for ocean management planning). Do not do provide detailed project descriptions that would be needed for the PSM competition.

Final

STRATEGY TITLE: IMPROVED DECISION-MAKING REGARDING WATER MANAGEMENT

I. Issue Area(s)

The proposed strategy or implementation activities will support the following priority (high or medium) enhancement area(s) (*check all that apply*):

- | | |
|--|---|
| <input type="checkbox"/> Aquaculture | <input type="checkbox"/> Cumulative and Secondary Impacts |
| <input type="checkbox"/> Energy & Government Facility Siting | <input checked="" type="checkbox"/> Wetlands |
| <input type="checkbox"/> Coastal Hazards | <input type="checkbox"/> Marine Debris |
| <input type="checkbox"/> Ocean/Great Lakes Resources | <input type="checkbox"/> Public Access |
| <input type="checkbox"/> Special Area Management Planning | |

II. Program Change Description

A. The proposed strategy will result in, or implement, the following type(s) of program changes (*check all that apply*):

- A change to coastal zone boundaries;
- New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;
- New or revised local coastal programs and implementing ordinances;
- New or revised coastal land acquisition, management, and restoration programs;
- New or revised Special Area Management Plans (SAMP) or plans for Areas of Particular Concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,
- New or revised guidelines, procedures and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government and other agencies that will result in meaningful improvements in coastal resource management.

B. *Describe the proposed program change(s) or activities to implement a previously achieved program change. If the strategy will only involve implementation activities, briefly describe the program change that has already been adopted, and how the proposed activities will further that program change. (Note that implementation strategies are not to exceed two years.)* The program change will be to pass legislation that will establish the Office of Coastal Management as a presence on governing boards for water management in Coastal Louisiana. In some cases, depending on the founding legislation of the respective boards or commissions, legislation may not be needed but can be accomplished through a memorandum of agreement or other document of mutual agreement. This presence will provide for the OCM to exercise some oversight on the management of these large areas. For those areas where management is singular (i.e. drainage, salinity control, agriculture, etc.), the OCM will be able to evaluate and recommend strategies for management encompassing a broader ecosystem function. These strategies and recommendations from OCM will also be made in concert with the State's Master Plan for Coastal Protection and Restoration and OCM through its position

on the board or commission will provide advice, or when needed, resolution to ensure that the decisions of each board are in compliance with the Master Plan as is required in the Governor's executive order. A large percentage of the coastal marshes in Louisiana are within "managed areas". Without a role on the management boards, the Office of Coastal Management (OCM) has no input to the decisions on how the areas are managed and can only react to individual piecemeal permit applications for work on individual features (culverts, levees, gates etc).

In order for OCM to identify those areas under water management and to gain an understanding of the management features, OCM will perform an assessment of water management programs and water control features in the coastal zone. This project will document federal, state and local water management projects and each project's scope and objective. The water control features, levees, culverts, gates, etc will be identified and locations mapped. The objectives of each area will be analyzed in comparison with the goals of the OCM and State Master Plan for a Sustainable Coast.

A change in the permit procedures will also be needed. Currently each permit for each individual water control structure is handled independently and many times the needs/alternative/justification (NAJ) documentation is controversial and protracted. A better understanding of system wide functions may modify the level of detail or even negate the need for this NAJ documentation during permit processing. Conversely, this knowledge of each entire system may lead to permit decisions that the structures are not properly designed and some necessary modifications are required to be permitted or even denial of unnecessary or poorly designed projects. Permit review procedures will be modified to include a verification of whether or not each application is in or near one of the water management areas. This change in procedure and possible change in policy will be incorporated into the Standard Operating Procedure (SOP) documents and policy documents maintained by the office.

The OCM will identify an OCM employee to best represent the Department of Natural Resources in the management of these systems and establish a presence on the governing board(s) where possible. Legislation or other legally binding mutually agreed upon document as determined by the founding legislation for each board or commission to effect our representation may be necessary and will be pursued to accomplish this task when needed.

III. Need(s) and Gap(s) Addressed

Identify what priority need the strategy addresses, and explain why the proposed program change or implementation activities are the most appropriate means to address the priority need. This discussion should reference the key findings of the Assessment and explain how the strategy addresses those findings.

The DNR and OCPR currently do not have a voice in the water management of large areas of coastal marshes in order to assure they management is in conformance with the State Master Plan for a Sustainable Coast. In western Louisiana much of the entire

coastal wetland area is subject to water management programs from Federal and local agencies. Through a series of control points, the Corps of Engineers and Natural Resource Conservation Service manipulate water flow and levels for agricultural and flood control objectives. The USFWS also controls large parcels of wetlands under water management strategies. In central and eastern Louisiana, there are large portions of the state where water levels are managed for flood control and municipal supply. For the Office of Coastal Management to make more informed decisions on individual aspects of these systems, an understanding of the overall systems needs to be developed. Additionally, the interaction between systems managed by different agencies is unknown and little coordination exists. The water management is usually for a singular purpose and inadequate consideration is given to other impacts. Currently the Office of Coastal Management, DNR, has little input on the management strategies of the federal and local agencies in control of these systems. A desire of the Department is to be represented and provide leadership in the management of these systems.

IV. Benefit(s) to Coastal Management

Discuss the anticipated effect of the program change or implementation activities including a clear articulation of the scope and value in improved coastal management and resource protection.

Much of the water management in coastal Louisiana is singularly focused. The Coastal Zone will benefit from a broader overview of the water management decisions and projects permitted in coastal Louisiana. The OCM will identify an OCM employee to best represent the Department of Natural Resources in the management of these ecosystems and establish a presence on the governing boards where possible. Legislation to effect our representation may be necessary and will be pursued to accomplish this task.

V. Likelihood of Success

Discuss the likelihood of attaining the proposed program change and implementation activities. The state or territory should address: 1) the nature and degree of support for pursuing the strategy and the proposed change; and, 2) the specific actions the state or territory will undertake to maintain or build future support for achieving and implementing the program change, including education and outreach activities.

The likelihood of success is high. Most of the parties involved are public agencies and the information can be obtained. Cooperation in collecting the data is expected. Obtaining a voice in the management will more difficult but is achievable in years three through five.

VI. Strategy Work Plan

Using the template below, provide a general work plan that includes the major steps necessary for achieving the program change and/or implementing a previously achieved program change. The plan should identify significant projected milestones/outcomes, a schedule for completing the strategy, and budget estimates. If an activity will span two or more years, it can be combined into one entry (i.e., Years 2-3 rather than Year 2 and then

Year 3). While the annual outcomes are a useful guide to ensure the strategy remains on track, OCRM recognizes that these benchmarks may change some over the course of the five-year strategy due to unforeseen circumstances. The same holds true for the annual budget estimates. If the state intends to fund implementation activities for the proposed program change, describe those in the plan as well. Further detailing of annual tasks, budgets, benchmarks, and work products will be determined through the annual award negotiation process.

Total Years: 5

Total Budget: \$411,200.00

Final Outcome(s) and Products:

DNR will establish a presence on the water management boards or commissions for large areas of Coastal Louisiana through legislation or other legally binding mutually agreed upon document as determined by the founding legislation for each board or commission as needed for each respective situation.

OCM will bring the management of these large systems into compliance with the State Master Plan for a Sustainable Coast through guidance and advice as a board or commission member. This project will document federal, state and local water management projects and each project's scope and objective.

Permit procedures will be modified to include a verification of whether or not each application is in or near one of the water management areas and determine the appropriate level and degree of NAJ review. Inadequate justification or lack of engineering will result in denial of likely ineffective projects.

A map of the water control features (levees, pumps, water control structures, etc) will be produced. The water control features, levees, culverts, gates, etc will be identified and locations mapped.

This change in procedure and possible change in policy will be incorporated into the Standard Operating Procedure (SOP) documents and policy documents maintained by the office.

Year(s): Year 1 (2011-12)

Description of activities:

Establish scope of services and execute contract for services. The contractor will facilitate and participate in meetings of other agencies and OCM personnel. The contractor will gather information on the identification, location, and function of water control features. The contractor will also report to OCM information about pertinent commissions and boards that it discovers in working with local authorities including all federal state and local water management projects and those project's scope and objectives.

OCM staff will be involved in contacting other government individuals, participating in meetings and providing guidance, oversight and management of the project. OCM will begin building the list of agencies involved and principle people involved.

OCM will establish a GIS database. Existing data will be input into a GIS dataset by OCM staff. OCM staff will maintain the GIS datasets.

Outcome(s):

Contract for data collection.

Initial collection of existing data.
GIS database.
Initial GIS mapping.
List of agencies and principle people involved.

Budget:

\$91,200.00 staff
\$10,000.00 contract

Year(s): Year 2 (2012-13)

Description of activities:

Continuation of the collaboration with other agencies and GIS mapping by OCM.
Begin to gather any new data that is required.

Outcome(s):

Continue gathering existing and new data.
Continue networking with the other agencies.
Continue GIS mapping.

Budget:

\$60,000.00 staff
\$20,000.00 contract

Year(s): Year 3 (2013-14)

Description of activities:

Continuation of the collaboration with other agencies.
Completion of gathering data and GIS mapping by OCM staff.
New permitting procedures will be developed and documented. Permit procedures will include a verification of whether or not each application is in or near one of the water management areas and determine the appropriate level and degree of NAJ review. Inadequate justification or lack of engineering will result in requiring modification or denial of projects likely to be ineffective.
Planning for required legislative changes will be completed.

Outcome(s):

Continue networking with the other agencies.
Data gathering and mapping complete.
Draft permitting procedures developed
Plan for legislative changes

Budget:

\$60,000.00 staff
\$20,000.00 contract

Year(s): Year 4 -5 (2014-16)

Description of activities:

OCM will finalize the permit procedures and officially incorporate them into the LCRP. OCM permitting staff will begin implementing the new procedure developed incorporating the water management maps.
OCM staff will work with local legislative representatives to identify the path and means of obtaining a voice in the administration of the systems. Legislation and/or

Memoranda of Agreement will be required. Legislation to provide the means to have OCM participate in the governance of these systems will be drafted and proposed. Upon successful legislative and/or Memoranda of Agreement, an OCM staff member will be selected to represent the DNR.

Through participation on the boards, OCM will bring management of the systems into compliance with the State Master Plan.

Outcome(s):

Final permitting procedures for review of permits affecting the systems officially incorporated into SOPs.

Adoption of legislative changes or MOAs for OCM's representation on the boards.

Budget:

\$75,000.00 annually for staff (total 150,000.00)

VII. Fiscal and Technical Needs

B. Fiscal Needs: *If 309 funding is not sufficient to carry out the proposed strategy, identify additional funding needs. Provide a brief description of what efforts the applying agency has made, if any, to secure additional state funds from the legislature and/or other sources to support this strategy*

309 funds should be sufficient to carry out this proposed strategy.

C. Technical Needs: *If the state does not possess the technical knowledge, skills, or equipment to carry out the proposed strategy, identify these needs. Provide a brief description of what efforts the applying agency has made, if any, to obtain the trained personnel or equipment needed (for example, through agreements with other state agencies).*

The OCM has the technical resources to oversee and maintain this program change; however, outside contractors will be required to facilitate the project and perform the data collecting and compilation. Staff will oversee and direct the work of the contractors.

VIII. Projects of Special Merit (Optional)

If desired, briefly indicate what PSMs the CMP may wish to pursue to augment this strategy. Any activities that are necessary to achieve the program change or that the state intends to support with baseline funding should be included in the strategy above. The information in this section will not be used to evaluate or rank PSMs and is simply meant to provide the CMPs the option to provide additional information if they choose. PSM descriptions should be kept very brief (e.g., undertake benthic mapping to provide additional data for ocean management planning). Do not do provide detailed project descriptions that would be needed for the PSM competition.

**5-Year
Budget
Summary
by
Strategy**

Strategy Title	Year 1 Funding	Year 2 Funding	Year 3 Funding	Year 4 Funding	Year 5 Funding	Total Funding
COASTAL BOUNDARY	0.0	40,000.00	40,000.00	0.00	0.00	80,000.00
CONSISTENCY BENEFICIAL USE	0.00	32,400.00	42,400.00	0.00	0.00	74,800.00
MITIGATION	101,200.00	160,000.00	160,000.00	110,000.00	110,000.00	641,200.00
COASTAL HAZARDS	232,400.00	80,000.00	80,000.00	187,400.00	100,000.00	679,800.00
OIL AND GAS FACILITY SITING	101,200.00	90,000.00	80,000.00	110,000.00	110,000.00	491,200.00
WATER MANAGEMENT SYSTEMS	101,200.00	80,000.00	80,000.00	75,000.00	75,000.00	411,200.00
309 FIVE YEAR STRATEGY	0.00	0.00	0.00	0.00	87,400.00	87,400.00
Total Funding	536,000.00	482,400.00	482,400.00	482,400.00	482,400.00	2,465,600.00

PUBLIC COMMENT/RESPONSES

No public comments were received.