

**MANAGEMENT STRUCTURE & AUTHORITY**

The Louisiana fishery management system operates within the legal framework established by the Constitutions of the State of Louisiana and the United States of America. Article I of the Louisiana Constitution of 1974 is the Declaration of Rights. Section 27 of Article I preserve for the people the freedom to hunt, fish and trap and was added to the Louisiana constitution in 2004.

***§27. Freedom to Hunt, Fish and Trap***

*Section 27. The freedom to hunt, fish, and trap wildlife, including all aquatic life, traditionally taken by hunters, trappers and anglers, is a valued natural heritage that shall be forever preserved for the people. Hunting, fishing and trapping shall be managed by law and regulation consistent with Article IX, Section 1 of the Constitution of Louisiana to protect, conserve and replenish the natural resources of the state. The provisions of this Section shall not alter the burden of proof requirements otherwise established by law for any challenge to a law or regulation pertaining to hunting, fishing or trapping the wildlife of the state, including all aquatic life. Nothing contained herein shall be construed to authorize the use of private property to hunt, fish, or trap without the consent of the owner of the property. Added by Acts 2004, No. 927, §1, approved Nov. 2, 2004, eff. Dec. 7, 2004.*

Article IX, Section 1 of the Louisiana Constitution provides for the protection, conservation, and replenishment of the natural resources of the state and the environment insofar as possible and consistent with the health, safety, and welfare of the people.

The management system for Louisiana fisheries is further governed by Louisiana legislative statutes appropriate to modern fisheries management. The control and supervision of the wildlife of Louisiana, including all aquatic life, is vested in the Louisiana Wildlife and Fisheries Commission (LWFC). The Commission was established by Title 76 and operates under Title 56 of the Louisiana statutes, enacted by the legislature. Title 56:6 gives the Commission the following specific powers:

(25)(a) Shall promulgate rules and regulations, subject to the provisions of the Administrative Procedure Act, to set seasons, times, places, size limits, quotas, daily take, and possession limits, based upon biological and technical data, for all wildlife and fish. Any such rule or regulation shall have as its objective the sound conservation, preservation, replenishment, and management of that species for maximum continuing social and economic benefit to the state without overfishing that causes short-term or long-term biological damage to any species, and regarding all species of fish, without overfishing that leads to such damage. Any season, time, place, size, quota, daily take or possession limit currently set by law shall be superseded upon promulgation by the commission of new rules and regulations concerning a particular species.

The Louisiana Department of Wildlife and Fisheries was established by Title 36 and serves as the administrative and operational arm of the Wildlife and Fisheries Commission. Both the Commission and the Department may sue and be sued if necessary to resolve disputes.

Louisiana law regarding fishery management is modeled after the U.S. federal Magnuson-Stevens Fishery Conservation and Management Act. Title 56 § 638.1 sets out the legislative intent guiding saltwater fishery conservation and management. The law recognizes that proper regulation of the harvest by fishermen and protection for fisheries habitat is necessary to provide benefits from saltwater fisheries indefinitely, including but not limited to food supply, economy, and health of the state and recreational opportunities. The legislative findings include recognition of the employment provided by commercial and recreational fishing and the dependence of coastal areas upon such fishing. The law notes the finite and renewable nature of saltwater fishery resources and the need for sound management to conserve and maintain optimum yields on a continuing basis. In recognition of these needs, the law finds that a state program for the wise conservation and management of saltwater resources is necessary to prevent overfishing, to rebuild reduced stocks, to insure conservation, and to realize the full potential of those resources.

Title 56 charges the LA Wildlife and Fisheries Commission with the following responsibilities:

- (1) Take timely action to conserve and manage saltwater finfish species.
- (2) Promote the use of sound conservation and management principles in the regulation of commercial and recreational fishing.
- (3) Actively advocate, on behalf of the saltwater finfish constituency, improvement of or no net loss of the functionality and value of the saltwater fisheries' habitat and estuary.
- (4) Provide for the preparation and implementation of fishery management plans, in accordance with this policy that will prevent overfishing and will achieve and maintain plentiful fish populations to ensure, on a continuing basis, the optimum yield from each fishery.
- (5) Recognize that saltwater finfish populations are subject to both natural and man-induced increases and decreases, and that changes in harvest levels may need to be recommended. If changes are required, these increases and decreases should be distributed among all fishermen in a fair and equitable manner that considers among other factors historical usage, ensuring that no historical user groups will be arbitrarily excluded.

Title 56 further asserts the policy of the state of Louisiana to be the following:

Stewardship of the state's saltwater finfish resources shall have as its utmost concern the continued health and abundance of the resource and its environs, shall provide for optimum sustained benefits to the state, shall be responsive to the needs of interested and affected citizens, shall ensure the proper and fair utilization of these resources for the citizens of the state in present and future generations, shall preserve the state's exclusive right to manage the fisheries within or beyond its jurisdiction, and shall be based on the best scientific information available. In addition, such stewardship of the state's saltwater finfish resources shall draw upon federal, state, and academic capabilities and promote efficiency in carrying out research, administration, management, and enforcement.

Title 56 sets standards for saltwater fishery management that are similar in nature to the U.S. national standards as set forth in the Magnuson-Stevens Act.

- (1) Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield while maintaining healthy, plentiful stocks. In fact, every effort will be made at all times to prevent a harvest from exceeding the safe upper limit of harvests which can be taken consistently year after year without diminishing the stocks so that the stock is truly inexhaustible and perpetually renewable.
- (2) Conservation and management measures shall be based upon the best scientific, economic, biological, anthropological, and sociological information available.
- (3) To the extent practicable, an individual stock or unit of fish shall be managed as a unit throughout its range within the state's jurisdictional authority and interrelated stocks of fish and other saltwater resources shall be managed in close coordination.
- (4) If it becomes necessary to allocate or assign fishing privileges among various fishermen, such allocations to the extent practicable shall be:
  - (a) Fair and equitable to all such fishermen.
  - (b) Reasonably calculated to promote conservation.
  - (c) Carried out in such a manner that no particular individual, corporation, or other legal entity acquires an excessive share of such privileges.
  - (d) In the best interest of the citizens of Louisiana.
- (5) Conservation and management measures shall, where practicable, promote efficiency in the conservation and management of fishery resources; except that no such measure shall have economic allocation as its sole purpose.
- (6) Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.
- (7) Conservation and management measures may take into account and allow for variations among, and contingencies in, fisheries resources and catches.

As the administrative arm of the Wildlife and Fisheries Commission, the Louisiana Department of Wildlife and Fisheries (LDWF) has the operational responsibility for managing and protecting Louisiana's abundant natural resources. Its mission is:

- To manage, conserve, and promote wise utilization of Louisiana's renewable fish and wildlife resources and their supporting habitats through replenishment, protection, enhancement, research, development, and education for the social and economic benefit of current and future generations;
- To provide opportunities for knowledge of and use and enjoyment of these resources; and
- To promote a safe and healthy environment for the users of the resources

#### LDWF Strategic Plan

The LDWF has established a strategic plan for management of the state's renewable natural resources including all wildlife and all aquatic life. The control and supervision of these resources are assigned to the department in the Constitution of the State of Louisiana of 1974, Article IX, Section 7 and in revised statutes under Title 36 and Title 56. Responsibilities related to enforcement of boating safety laws are also assigned to LDWF in Title 34, Chapter 4, Part IV.

Strategic Plan Statement: Prudent stewardship of the state's renewable natural resources contributes significantly to the quality of life of the state's citizens and to the economic well-being of the state. We serve almost two million direct users and countless others who benefit indirectly.

LDWF supports a strong work ethic in its employees and incorporates the use of good science, accurate information, and technology in carrying out its mission. The agency continually looks for ways to improve the way we manage resources to ensure their sustainability and availability for all users now and in the future.

There are national trends that challenge all fish and wildlife agencies. Some of these include:

- People have increasingly greater demands on their time.
- Access to natural resources is becoming more restricted.
- Citizens have less trust in government.
- Funding is limited.
- The human population is aging.
- Complex regulations make it difficult to attract novices to hunting and fishing.
- Wildlife habitat is shrinking because of development.
- Increasingly urbanized public.

These national issues in addition to state issues create a challenging climate for natural resource management. To ensure success in maintaining and expanding opportunities to the users of the resources and to ensure continued sustainable populations of fish and wildlife species, the department must enhance citizen participation, create opportunities to inform the public and exchange ideas and concerns, and make decisions that include scientific, social and economic factors.

#### **LDWF DEPARTMENT ORGANIZATION**

The LDWF is organized by statute into four offices. Funding is appropriated by “program”.

<u>Office</u>	<u>Program</u>
Office of Management and Finance	Management and Finance
Office of Secretary	Administration and Enforcement
Office of Wildlife	Wildlife
Office of Fisheries	Fisheries

#### **OFFICE OF FISHERIES**

The Office of Fisheries is comprised of the following sections:

- Marine Fisheries - to manage the marine (saltwater) fisheries resources of the state.
- Inland Fisheries - to manage the inland (freshwater) fisheries resources of the state.
- Fisheries Management - to provide technical and scientific research in support of fisheries management.
- Fisheries Oversight - to provide guidance and assistance to Louisiana’s valuable commercial and recreational fishing industries.
- Fisheries Extension - to inform the public on fishery management measures and activities.

## **OFFICE OF FISHERIES MISSION**

The purpose of the Fisheries program is to manage living aquatic resources and their habitat, to support the fishing industry, and to provide access, opportunity and understanding of the Louisiana aquatic resources to the State's citizens and others beneficiaries of these sustainable resources.

## **OFFICE OF FISHERIES OBJECTIVES**

- To provide high quality fishery management information through effective data collection, analysis and information sharing.
- To be an effective, efficient steward of our renewable aquatic resources.
- Provide and enhance recreational fishing experience through improved access, opportunity and public awareness.
- Maintain a sustainable and economically viable fisheries environment.
- Create a work environment in which all Fisheries staff are enabled and empowered to achieve the office's goals and objectives.

## **OFFICE OF FISHERIES PROGRAMS**

### **MONITORING**

Monitoring fisheries, both fresh and saltwater, is a crucial component of resource management. Important biological data is collected specific to each type of sampling. In addition, hydrological data (conductivity, salinity and water temperature) are collected with each biological sample, as are wind direction and speed. The information gathered during monitoring efforts, such as fisheries independent sampling, gives biologists and administrators the information essential to manage each fishery appropriately - openings, closures, limits and emergency actions are based upon monitoring data.

### **Sampling Methodology**

The LDWF Office of Fisheries has a comprehensive, well-established and standardized sampling methodology for trawl, oyster dredge, square meter, seine, gill net, and trammel net samples taken by Division of Marine Fisheries personnel. Standardization allows for meaningful comparisons of data both spatially and temporally.

The fishery independent monitoring program of the Marine Fisheries Division is largely based upon methodology utilized during the Cooperative Gulf of Mexico Estuarine Inventory and Study (GMEI) (Perret et al., 1971). The project was conducted in cooperation with the Gulf States Marine Fisheries Commission (GSMFC), the states of Alabama and Mississippi, and the National Marine Fisheries Service (NMFS) laboratories at Galveston, Texas and St. Petersburg, Florida. Standardized sampling methods and procedures used in the GMEI were developed by the Technical Coordinating Committee of the GSMFC.

Sampling protocols are documented in a Field Procedure Manual which may be exceeded periodically to obtain additional biological data for management decisions. For instance, supplemental trawl samples may be taken to quantify distribution, abundance, and size of penaeid shrimp to provide data to set or close seasons as described in the Shrimp Sampling section which follows. In addition, the regularly scheduled sampling program may be augmented by monitoring of specific events such as fish kills due to cold or oxygen depletion, chemical or oil spills, habitat modifications, etc.

For monitoring purposes, the Louisiana coast is divided into five sampling areas, based on drainage basins; the sampling regimen allows for stratified random sampling sites. Geographic boundaries of the areas are as follows:

The Pontchartrain Basin is bordered on the east by the Mississippi state line and on the south by the east side of the Mississippi River, including such major water bodies as Chandeleur and Mississippi Sounds, Lakes Borgne, Pontchartrain, and Maurepas, Breton Sound, Black Bay, Bay Gardene, Little Lake, Bay Crabe, American Bay, California Bay, Quarantine Bay and Grand Bay.

Barataria Basin includes Barataria and Caminada Bays and Little Lake. The boundaries are the western side of the Mississippi River and Bayou Lafourche.

Terrebonne/Timbalier Basin is bounded on the east by Bayou Lafourche and on the west by Atchafalaya Bay. This Basin includes Terrebonne and Timbalier Bay, Bayou Sale, Sister Lake and Lake Menchant.

Vermillion Basin extends from the Atchafalaya River on the east to Freshwater Bayou on the west. Large water bodies in this area include Vermilion Bay, West Cote Blanche Bay, East Cote Blanche Bay, and Atchafalaya Bay.

Calcasieu Basin encompasses the region from Freshwater Bayou, located in Vermilion Parish, westward to the Louisiana/Texas state line. Estuaries located within CSA VII include the Rockefeller Wildlife Refuge complex, the Mermentau River Basin, Calcasieu Lake, Lake Charles, Prien Lake, and Sabine Lake.



### **Gear Types/Sampling Objectives**

Detailed specifications of major gear types (Appendix Table 1) are on file with the Marine Fisheries Division and are used when requisitioning new gear. Therefore, sampling crews in each CSA utilize identical sampling gear.

#### Trawl 16 foot

A 16 foot (ft.) flat otter trawl is used to sample penaeid shrimp, blue crabs, finfish (bottomfish), and other marine organisms in the larger inshore bays and in Louisiana's territorial waters. The objectives are to determine relative abundance, size distribution, and seasonal/long term trends.

#### Trawl 6 foot

A 6 ft. balloon otter trawl is used to sample juvenile penaeid shrimp populations in shallow edge habitats in the interior marshes. Objectives are to characterize relative abundance, size distribution, and seasonal/long term trends.

#### Trawl 20 foot

A 20 foot (ft.) flat otter trawl is used to sample penaeid shrimp, blue crabs, finfish (bottomfish), and other marine organisms in the offshore areas of Louisiana's territorial waters. The objectives are to determine relative abundance, size distribution, and seasonal/long term trends.

#### Square Meter

A one meter square frame is used on the oyster seed grounds to quantitatively determine production (i.e., seed and sack oysters) per unit area and to provide ancillary data on oyster mortality and predators.

#### Oyster Dredge

An 18 inch (in.) wide oyster dredge is used to sample oysters, fouling organisms, and other sessile marine organisms. This gear nonquantitatively characterizes recruitment (i.e., spat set) and size distribution of oysters and provides ancillary data on oyster mortality and predators.

#### Seine

A 50 ft. bag seine is used to sample juvenile finfish, shellfish, and other marine organisms to monitor relative abundance, size distribution, and seasonal/long term trends.

#### Gill Net

A 750 ft. experimental monofilament gill net is used to sample finfish to obtain indices of abundance, size distribution, and ancillary life history information on selected species.

#### Trammel Net

A 750 ft. trammel net is used to sample finfish to obtain indices of abundance, size distribution, and ancillary life history information on selected species.

#### Nestier Trays

Adult oysters are attached to trays and set throughout Barataria and Pontchartrain Basin; mortality and growth rate is measured and recorded, along with hydrologic and physical data.

#### Isohaline sampling

Salinity, dissolved oxygen, conductivity and temperature is measured throughout the Barataria and Pontchartrain Basins.

#### **Sampling Locations**

Sampling stations are chosen by a stratified random sampling method. A portion of the locations will be sampled during the monitoring period.

The 16 ft. and 20 ft. trawl stations are located in either the Gulf of Mexico or bays, sounds or lakes, while 6 ft. trawl stations are found in interior marsh, shallow edge habitats.

One or two upper to lower estuarine transects for seine, gill net, and trammel net stations have been established in each CSA.

Each net transect has a beach (or lower estuary), mid estuary, and upper estuary station, while each seine transect has a minimum of six stations.

**Sampling Frequency**

Sampling frequency by gear type by time period is listed below:

<u>Gear Type</u>	<u>Periodicity</u>	<u>Time Period</u>
Gill Net	Monthly	Oct - Mar
	Twice Monthly	Apr - Sept
Trammel Net	Monthly	Oct - Mar
Seine	Quarterly	Jan - Dec

16 ft. Trawl:

Monthly 16 Foot Trawl Sampling Schedule -

JAN				FEB				MAR				APR				MAY				JUN			
	x				x						x		x		x	x		x				x	x
JUL				AUG				SEP				OCT				NOV				DEC			
	x		x				x			x				x				x		x		x	

20 ft. Trawl:

Monthly 20 Foot Trawl Sampling Schedule -

JAN				FEB				MAR				APR				MAY				JUN			
	x										x	x		x		x							
JUL				AUG				SEP				OCT				NOV				DEC			
																		x		x		x	

6 ft. Trawl:

Monthly 6 Foot Trawl Sampling Schedule -

JAN				FEB				MAR				APR				MAY				JUN			
												x	x	x	x	x						x	x

JUL		AUG			SEP			OCT			NOV			DEC		
x	x															

Oyster Dredge	Monthly	Jan – Mar and Aug Nov - Dec
	Twice Monthly	Apr – Jun Aug - Oct
Square Meter	Annually	Jul

**Shrimp Sampling**

The sampling methodology is used throughout the year the Office of Fisheries to maintain a coast-wide sampling program which monitors relevant parameters of shrimp, groundfish and crab resources. Each month, LDWF biologists conduct surveys to monitor the growth, distribution and abundance of shrimp. Six foot trawls are used to sample shallow marsh habitats and 16 foot trawls are used in sampling the open waters of coastal lakes and bays. Sample locations and procedures are standardized with 10 minute tow times. All shrimp caught, including finfish and other crustaceans are identified to species, and counted, up to 50 randomly selected individuals of each species are measured and the information recorded before the process is repeated again at another station location. Hundreds of locations are sampled; then all of the data collected is compiled, and plugged it into mathematical models to generate an abundance index. Hydrological (water quality) conditions are also monitored at each sample site. Managers use this information to recommend when shrimp seasons should be opened and closed. Biologists also use these data to develop abundance indices and stock assessments for other species such as blue crab, southern flounder, black drum, and Gulf menhaden. The sampling provides a biological and hydrological database utilized to develop rational management recommendations for Louisiana’s shrimp, groundfish and crab resources.

Scientists from NOAA Fisheries Southeast Fisheries Science Center also use LDWF’s survey data, along with abundance data from joint federal and state Southeast Area Monitoring and Assessment Program (SEAMAP) groundfish surveys and commercial catch data, to assess the annual status of the brown shrimp stock throughout the Gulf of Mexico. LDWF uses this Gulf-wide assessment to report on the status of brown shrimp—it’s common practice to assess a stock throughout its range, and since brown shrimp are found in both state and federal waters, seem to be continuous across adjacent states, and are managed interjurisdictionally, it’s appropriate to evaluate the condition of the stock as a whole.

Inshore sampling continued with last year’s modified sampling program. As a result, additional 6-foot and 16-foot trawl sampling stations were included in the sampling plan, and the frequency of sampling was adjusted in some cases. During fiscal year 2011-2012, 607 6-foot trawl and 3,385 16-foot trawl samples were collected. Information crucial to setting both the opening and closing dates for the spring shrimp season in inside waters was collected using these sampling procedures.

**Finfish Sampling**

The primary objective of the finfish program is to make rational recommendations for the management of coastal finfish stocks based on a database of scientific information. The information in the database is collected through fishery independent and dependent sampling.

The fishery independent monitoring program is an ongoing collection of data by Fisheries biologists in the field conducting surveys designed to sample coastal waters in an objective manner. The surveys collect information based on geographic ranges independent of commercial or recreational fishing operations.

A comprehensive monitoring program was developed in 1985 to protect and enhance our valuable fisheries resources by providing information regarding the status of fish stocks that occur in the coastal waters of Louisiana at some point during their life cycle. Three gear types are used coast-wide to sample various year classes of estuarine dependent fish.

1. A bag seine is used to sample young of the year and provide information on growth and movement. More significantly, these samples provide information on the forage species and ecological components of marsh-edge and shoreline habitats throughout the coastal zone. Seine samples are taken quarterly.
2. A gill net is used to sample juvenile, sub-adult and adult fish. It provides information on relative abundance, year class strength, movement and gonad condition. Gill net samples have been collected semi-monthly from April through September, and monthly from October through March using a strike net technique.
3. A trammel net is used to sample juvenile and sub-adult fish. It provides information on relative abundance, standing crop and movement. Trammel net samples are taken monthly from October through March.

During fiscal year 2011-2012 the fishery-independent finfish sampling program collected 1,907 gill net samples, 468 seine samples, and 544 trammel net samples for a 99 percent completion rate against sampling targets set in the LDWF Strategic Plan Documentation. Seine samples exceeded 100 percent due to extra sampling conducted in some areas of the state. Sample information for fiscal year 2011-2012 includes expanded fishery-independent monitoring and the change in seine sampling frequency.

### **Freshwater Sampling**

In fiscal year 2011-2012 Inland Fisheries personnel estimated relative abundance, age, growth and mortality, size class structure and species composition, and genetics of sportfish populations in addition to physiochemical characteristics of the water on 90 lakes, rivers and streams. All waters are sampled in a similar manner so that data from the different water bodies is comparable from year to year.

Sampling sites on inland lakes, reservoirs and rivers are predetermined and selected to represent available aquatic habitats within the various water bodies. Sampling protocol is standardized to the extent possible to allow for comparison of data over time.

Electrofishing samples are collected in both spring and fall to provide a measure of population trends including abundance, size distribution, age structure and genetic composition. A total of 670 stations were sampled for 147.25 hours of timed electrofishing during the fiscal year. Sampling included

largemouth bass and crappies in the spring and fall, with forage samples of all species also collected in the fall.

Seine samples are taken to determine fish community relative abundance, and young-of-the-year recruitment of popular sport fishes. Forty-three seine hauls were made during the fiscal year.

Entanglement and trap net webbing are also fished in a standardized manner to collect crappies, catfishes and sunfishes. Two hundred 63 gill net samples were taken on various lakes and rivers, while 226 lead nets and hoop net samples were fished during the fiscal year.

Mini biomass samples (one-day rotenone) were taken in the coastal freshwater marshes as a means to measure species diversity and abundance. Coastal districts cooperatively made 45 biomass samples in fiscal year 2011-2012.

Special largemouth bass age, growth and mortality studies continued on 12 water bodies during 2011-2012, while crappie age, growth and mortality studies continued on seven lakes. The extensive data collected will be used in consideration of existing and proposed harvest regulations. Genetic analyses of largemouth bass populations were completed on 12 waterbodies statewide with final number sampled and results presented in Table 1.

### **Fisheries Monitoring Changes**

The Office of Fisheries has changed its monitoring sample methodology to improve estuarine coverage and provide better management decisions. Sample stations for each gear-type used by Fisheries biologists are now chosen through stratified random design of fixed locations. An equal number of stations are selected at random for each sample period from the available pool of stations located throughout coastal Louisiana. For the following sample period, a new set of stations will be sampled at random. The stratified random design increases confidence in providing fish population estimates on a basin or statewide scale.

Although the previous methodology of sampling a set of fixed stations can sometimes provide a greater ability to identify changes in habitat in specific locations over time, the design falls short in measuring fish population by basin or statewide as that habitat changes through accretion or degradation of our estuaries. That comprehensive set of non-randomized fixed stations may not reflect the true distribution and abundance of species on a larger scale. The previous methodology did not provide the flexibility of moving station locations as habitat changes occurred. New station locations would be added as needed, but none of the previous unusable stations could be removed.

### **Data Management System Upgrade**

In an effort to further increase efficiency, the Office of Fisheries accepted proposals to replace its aging Data Management System. A contract was awarded in April 2010 and began work later that August. The work was scheduled to be completed in November 2011, but as the completion date neared, it was apparent that not all work would be completed. The remaining aspects of the system were expected to be completed by Jan. 31, 2013.

### **Environmental Monitoring**

The growth and survival of juvenile shrimp is directly related to environmental conditions in their nursery areas in the spring—higher temperatures and salinities in coastal estuaries promote better growth and survival. These conditions play a large role in dictating the upcoming season’s potential harvest. The LDWF monitors these conditions, along with shrimp growth, distribution, and abundance, and use these data to make appropriate management recommendations. A major threat to the viability of the shrimp resource continues to be loss of estuarine habitat, particularly marshes, largely due to earlier manmade alterations to the coastal landscape (oil and gas exploration, flood protection, and navigation). Hurricanes and minor tropical storms also significantly contribute to wetland loss as heavy winds and waves can destroy and displace coastal marshes. Once the marshes are lost, shrimp production may precipitously decline.

**COMMERCIAL HARVEST**

Louisiana produces nearly one-quarter of the seafood in the continental United States. Louisiana comes in second only to Alaska in terms of commercial fishing production and home to three of the top six commercial fishing ports in the country. Seventy-eight percent of the seafood production in the Gulf of Mexico comes from Louisiana shrimpers, crabbers, oyster harvesters and fishers. Nearly 13,000 commercial fishermen and over 1,500 seafood dealers/processors and brokers register each year to provide the nation with fresh seafood.

**Shrimp**

Shrimp are the state’s most valuable fishery. In 2011 total shrimp landings measured approximately 92 million pounds (all species combined/heads on weight) and had a dockside value of \$130 million. Brown shrimp landings comprised approximately 43 percent of 2011 landings. White shrimp landings in 2011 measured nearly 53.6 million pounds (headless) weight (Figures 1 and 2).

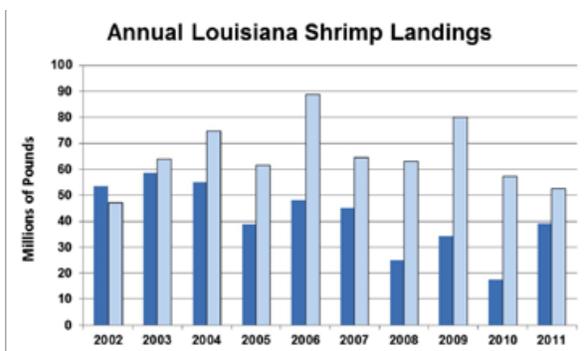


FIGURE 1. Louisiana commercial shrimp landings

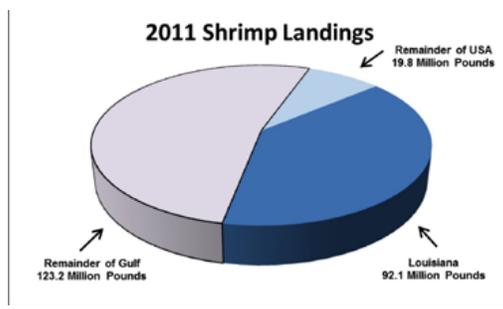


FIGURE 2. Breakdown of U.S. 2011 shrimp landings brown shrimp (dark blue) and white shrimp (light blue).

**Trip Ticket Program**

To monitor shrimp harvests, LDWF requires docks that purchase shrimp directly from commercial fishermen to submit trip tickets to capture information about their catch—what it is, where it was caught, and how and how much was caught. Commercial fishermen who sell their catch directly to consumers are also required to complete and submit trip tickets. The Trip Ticket Program which was

implemented in 1999 provides commercial landings data collected on a trip basis from wholesale/retail seafood dealers and commercial fishermen holding fresh products licenses. There were over 233,000 commercial fishing trips reported last year producing in excess of 155 million pounds of seafood.

Beginning in May 2000, a computerized electronic trip ticket program was developed and made available to dealers. To date, roughly 200 dealers use the computerized program to submit their trip ticket data. Trip ticket information has been used:

- to enhance the accuracy of stock assessments conducted by state and federal fishery management agencies,
- to extend certain inshore shrimp seasons providing additional economic opportunity to fishermen,
- to develop a crop insurance program for oyster growers, and
- to estimate damages from hurricanes Katrina and Rita in 2005 and the Deepwater Horizon Oil Spill.

After BP announced that it would require certified copies of trip ticket from LDWF, the department processed over 6,500 requests for trip ticket landings to aid fisherman with their claims. Along with the collection of commercial landings data, LDWF also conducts trip interviews of commercial fishermen to gather detailed information about a specific fishing trip. The federally funded program focuses on species of greatest state and federal interest.

#### **SOUTHEAST AREA MONITORING AND ASSESSMENT PROGRAM (SEAMAP)**

Louisiana also participates in regional sampling programs like SEAMAP, a cooperative state, federal and university program designed for the collection, management and dissemination of fishery-independent biological and environmental data of the coastal waters (state and EEZ) off the Southeastern United States. For the past 32 years SEAMAP has collected data on fish stocks that are managed by either state or federal governments. Louisiana takes part in four components of the SEAMAP program: shrimp/groundfish, ichthyoplankton, bottom longline, and vertical line. The surveys are conducted by teams of five to nine Fisheries biologist who collect, work-up and enter data on all biological samples. In addition, all surveys collect environmental parameters, primarily using a Conductivity/Temperature/Depth rosette, at each site along with water samples collected at bottom, middle and surface depths.

#### **SEAMAP Shrimp/Groundfish Survey**

The SEAMAP shrimp/groundfish survey is designed to collect fishery-independent information on abundance and distribution of shrimp, groundfish and plankton west of the Mississippi River. Shrimp and groundfish samples are collected using a 42-foot trawl. All specimens captured are identified, weighed and measured. Opportunistic plankton samples are also collected in this survey using 60cm bongo and 1x2m neuston nets. Plankton samples are forwarded to NMFS for preparation and shipment to the Poland Ichthyological Laboratory for species identification. During the fall of 2011 and spring and fall of 2012, 71 shrimp/groundfish randomly assigned locations, ranging from latitude 28° 14' to 29° 12' and longitude -89° 21' and -92° 13', were sampled. The depths sampled ranged from 36-330 feet.

Plankton samples were collected at seven set locations per survey off the Louisiana coast, ranging from latitude 28°30' to 29° 00' and longitude -89° 30' to -91° 30'.

### **SEAMAP Ichthyoplankton Survey**

SEAMAP ichthyoplankton surveys are conducted to provide information on the occurrence, abundance and geographical distribution of the eggs and larvae of spring spawning fish, particularly Atlantic bluefin tuna, and of fall spawning fish, particularly king and Spanish mackerel, lutjanids, and sciaenids. This information is essential to fisheries management of the Gulf of Mexico. Plankton sampling is conducted in conjunction with the NMFS SEAMAP Spring and Fall Plankton Surveys. Sampling is conducted using 60cm, 0.335mm-mesh bongo and 1m x 2m, 0.950mm-mesh neuston nets. Samples are transported back to the lab for preparation and transfer. Samples are then transferred to the NMFS Pascagoula, Miss. lab for shipment to the Poland Ichthyological Laboratory for species identification. In the spring and fall of 2012, surveys were conducted with a total of 18 stations sampled (between the latitudes 28°00 and 29°92, longitudes 88°00 and 93°01).

### **SEAMAP Bottom Longline Survey**

The SEAMAP Bottom Longline Survey is conducted to obtain fishery-independent data essential for monitoring and assessment of benthic species and shark populations in order to implement fishery regulations. Using standard 1 nautical mile longline sets, one of three corridors are sampled (eastern, central, western) monthly, March through October. Sites are randomized in each corridor by longitude and depth (longitude 89.00°- 91.00°, depth 6-600 feet). A different set of depths are sampled monthly. All species are identified, weighed, counted, measured and sexed (sharks) according to the SEAMAP Bottom Longline manual guidelines. Otolith and female ovaries are removed and processed in the lab for age and growth data. Office of Fisheries biologist completed a total of 81 bottom longline stations, landing 2,249 sharks and 635 other various species.

### **SEAMAP Vertical Line Survey**

The SEAMAP Vertical Line Survey is conducted to collect information on the spatial and temporal distribution of commercial and recreational reef species off the Louisiana coast. Sampling site selection is random within the three zones, ranging in depth from 60 to 360 feet. Each block is sampled quarterly in rotation utilizing standard commercial and recreational methods. Otolith and female ovaries are removed and processed in the lab for age and growth data. Vertical line surveys took place in July, September and October of 2012. Ninety-five vertical line stations were sampled, landing 586 fish (487 were red snapper [86%]).

## **MANAGEMENT RECOMMENDATIONS**

The Office of Fisheries uses data on shrimp and other commercially and recreationally important finfish to produce recommendations for setting seasons and harvest limits, and to monitor the species found in an area over time.

### **Shrimp Management**

The shrimp fishery is managed by area, season, size/possession limits, and gear (methods of taking).

### **Shrimp Management Areas**

Shrimp management areas in Louisiana are divided into inshore waters, the offshore territorial sea and the federal Exclusive Economic Zone (EEZ). The Louisiana shrimp fishery is further divided into state inshore and state offshore territorial waters into three shrimp management zones. Zone 1 extends from the Louisiana and Mississippi state line to the eastern shore of the South Pass of the Mississippi River. Zone 2 extends from the eastern shore of South Pass of the Mississippi River to the western shore of Vermilion Bay and Southwest Pass at Marsh Island. Zone 3 extends from the western shore of Vermilion Bay and Southwest Pass at Marsh Island to the Louisiana-Texas state line.

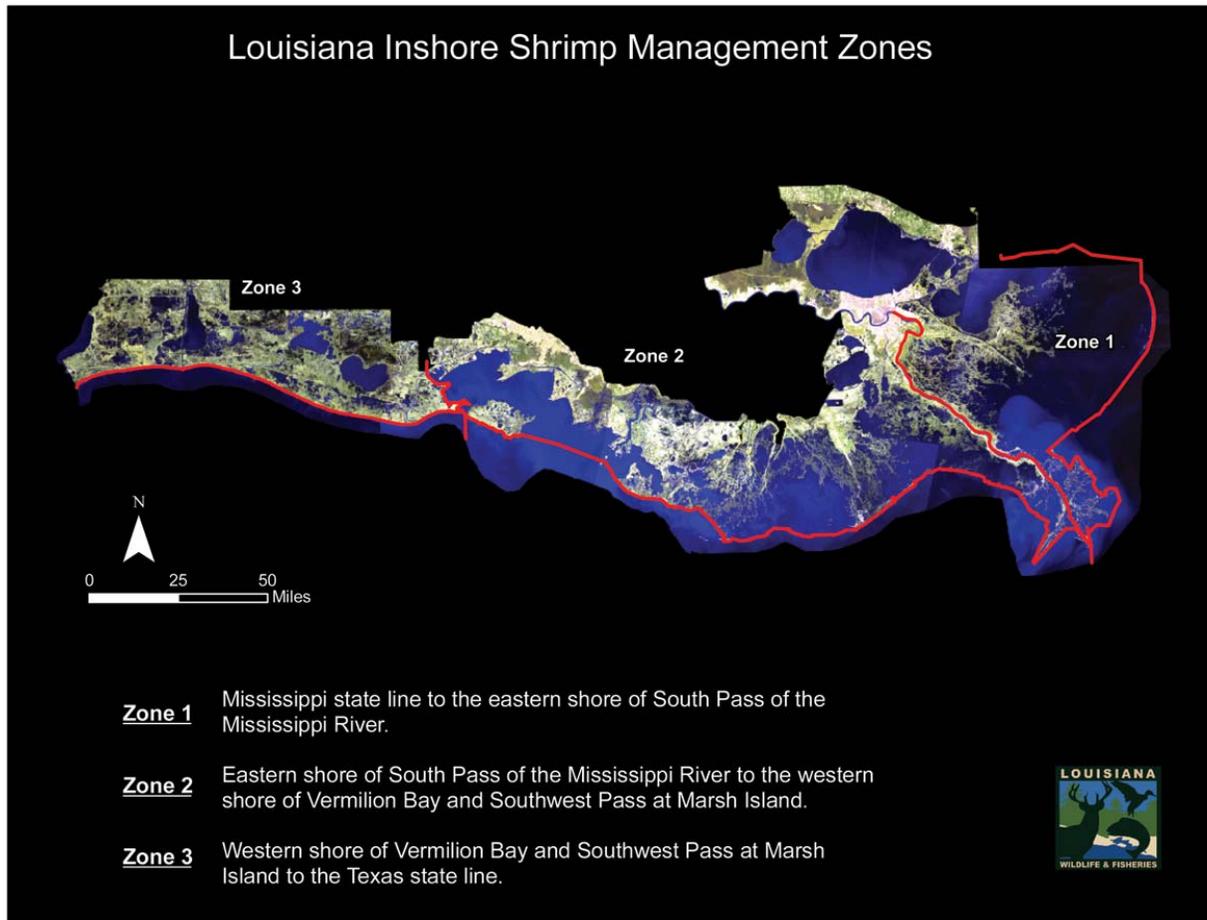


Figure 1. Louisiana State Shrimp Fishing Zones <http://www.wlf.louisiana.gov/fishing/shrimp>.

The shrimp management zone concept has been used since 1975 for inside waters and has provided the flexibility needed to create staggered opening and closing dates, season extensions, special seasons and special gear seasons between shrimp management zones. However, greater flexibility in managing the shrimp resource is now provided through the use of a basin type management approach. Louisiana's major estuarine basins include the Pontchartrain Basin, Mississippi River Basin, Barataria Basin, Terrebonne Basin, Atchafalaya River Basin, Vermilion-Teche River Basin, Mermentau River Basin, and Calcasieu and Sabine River basins.

## **Seasons**

Shrimp seasons are flexible and fixed by the Louisiana Wildlife and Fisheries Commission based on biological and technical data relative to shrimp populations in Louisiana waters. Generally, the spring inshore season begins in early to mid-May and may extend into July. The fall inshore season usually begins in early to mid-August and extends into December. The shrimp season in Louisiana's territorial waters is generally open year-round except for a closed season in portions of state outside waters which maybe set during late fall to early winter, usually beginning in mid to late December and extending into April or May. The shrimp season in the federal waters of the Gulf seaward of Louisiana's territorial waters is usually open all year. These waters are controlled by the federal government in conjunction with the Gulf of Mexico Fishery Management Council.

## **Size/Possession Limits**

There is no size limit on any saltwater shrimp taken during the spring open season nor is there a size limit on brown shrimp taken during any open season in Louisiana. There is a possession count limit on saltwater white shrimp taken in either inside or outside (offshore) waters of Louisiana of 100 count (whole shrimp per pound). This size restriction applies to shrimp aboard a vessel except during the period from October 15 through the third Monday in December when there shall be no possession count on saltwater white shrimp.

## **Gear/Methods of Taking**

During open seasons, saltwater shrimp may be taken with trawls, butterfly nets, skimmer nets or cast nets, and by no other means. Each gear has specific size and mesh requirements based on the season, time and area fished as described in the Louisiana commercial fishing regulations [www.wlf.la.gov](http://www.wlf.la.gov).

## **Current Management**

Based on analysis of historic data, as well as data generated from biological sampling conducted by LDWF fisheries biologists, the following management recommendations were made to the secretary of LDWF and the LWFC. These measures were implemented during fiscal year 2011-2012.

### *Pontchartrain and Portions of Mississippi River Basins*

#### 2011 - Spring Inshore Shrimp Season

Opened at 6:00 a.m. May 16, 2011, in the following waters:

- That portion of state inside waters from the northern shore of the Mississippi River Gulf Outlet to the eastern shore of South Pass of the Mississippi River.

Opened at 6:00 a.m. May 23, 2011, in the remainder of Zone 1.

Closed at 6:00 a.m. July 18, 2011 except for the following waters:

- Lake Pontchartrain including Rigoletes Pass from the mouth of Lake Pontchartrain extending eastward to the western side of the CSX Railway Bridge.

Closed at 6:00 a.m. July 18, 2011, except for the following waters:

- Chef Menteur Pass from the mouth of Lake Pontchartrain southeasterly to the mouth of Lake Borgne,
- The Mississippi River Gulf Outlet beginning at its juncture with the Industrial Canal.
- That portion of Lake Borgne seaward of a line extending one-half mile from the shoreline.

- That portion of Mississippi Sound beginning at a point on the Louisiana-Mississippi Lateral Boundary at latitude 30° 09"39.6' north and longitude 89° 30"00' west; thence southeasterly to a point at latitude 30°03"12' north and longitude 89°21"30' west; thence northeasterly to the most easterly point on Isle Au Pitre at latitude 30°09"20.5' north and longitude 89°11"15.5' west, which is a point on the double-rig line; thence northerly along the double-rig line to a point on the Louisiana-Mississippi Lateral Boundary at latitude 30°12"37.9056' north and longitude 89° 10"57.9725' west; thence westerly along the Louisiana-Mississippi Lateral Boundary to the point of beginning.

- The open waters of Breton and Chandeleur sounds as described by the double-rig line.

Closed at 6:00 a.m. Aug. 2, 2011, except for the following waters:

- That portion of Mississippi Sound beginning at a point on the Louisiana-Mississippi Lateral Boundary at latitude 30°09" 39.6' north and longitude 89°30" 00.0' west; thence due south to a point at latitude 30°05" 00.0' north and longitude 89°30"00.0' west; thence southeasterly to a point on the western shore of Three-Mile Pass at latitude 30°03"00.0' north and longitude 89°22"23.0' west; thence northeasterly to a point on Isle Au Pitre at latitude 30°09" 20.5' north and longitude 89°11"15.5' west, which is a point on the double-rig line as described in LA R.S. 56:495.1(A)2; thence northerly along the double-rig line to a point on the Louisiana-Mississippi Lateral Boundary at latitude 30°12" 37.9056' north and longitude 89°10"57.9725' west; thence westerly along the Louisiana-Mississippi Lateral Boundary to the point of beginning.

- The open waters of Breton and Chandeleur sounds as described by double rig line.

#### 2011 - Fall Inshore Shrimp Season

Opened at 6:00 a.m. Aug. 22, 2011.

Closed at official sunset Dec. 20, 2011, except in the following waters:

- That portion of state inside waters north of the southern shore of the Mississippi River Gulf Outlet including the Gulf Intracoastal Waterway north of the Paris Road Bridge.

- The open waters of Breton and Chandeleur sounds as described by the double-rig line.

Closed at official sunset Feb. 2, 2012, except in the following waters:

- The open waters of Breton and Chandeleur sounds as described by the double-rig line.

#### 2012 - Spring Inshore Shrimp Season

Opened at 6:00 a.m. May 21, 2012.

Closed at 6:00 a.m. July 9, 2012, except for the following waters:

- Lake Pontchartrain including Rigoletes Pass from the mouth of Lake Pontchartrain extending eastward to the western side of the CSX Railway Bridge. Chef Menteur Pass from the mouth of Lake Pontchartrain southeasterly to the mouth of Lake Borgne.

- Mississippi River Gulf Outlet.

- That portion of Lake Borgne seaward of a line extending one-half mile from the shoreline.

- That portion of Mississippi Sound beginning at a point on the Louisiana-Mississippi Lateral Boundary at latitude 30°09" 39.6' north and longitude 89°30"00' west; thence southeasterly to a point at latitude 30°03" 12' north and longitude 89°21"30' west; thence northeasterly to the most easterly point on Isle Au Pitre at latitude 30°09"20.5' north and longitude 89°11"15.5' west, which is a point on the double-rig line; thence northerly along the double-rig line to a point on the Louisiana-Mississippi Lateral Boundary at latitude 30°12"37.9056' north and

longitude 89°10'57.9725' west; thence westerly along the Louisiana-Mississippi Lateral Boundary to the point of beginning.

- The open waters of Breton and Chandeleur sounds as described by the double-rig line. Closed at 6:00 a.m. July 14, 2012 in the remainder of Zone 1 except for the following waters:
- The open waters of Breton and Chandeleur sounds as described by the double-rig line.

*Barataria, Terrebonne, Atchafalaya and Vermilion-Teche River Basins*

2011 - Spring Inshore Shrimp Season

Opened at 6:00 a.m. May 13, 2011, in the following waters:

- That portion of state inside waters from the western shore of Bayou Lafourche (waters from the Atchafalaya River to the western shore of Vermilion Bay and Southwest Pass at Marsh Island were opened earlier by special season).

Opened at 6:00 a.m. May 16, 2011, in remainder of Zone 2.

Closed at 6:00 p.m. June 25, 2011, in the following waters:

- That portion of state inside waters from the western shore of Bayou Lafourche westward to the Atchafalaya River Ship Channel at Eugene Island as delineated by the River Channel red buoy line except for the following waters:
- That portion of state inside waters south of 29°13'00" north latitude from 90°18' 00' west longitude westward to 90°34'00' west longitude.
- That portion of state inside waters south of 29°06'00" north latitude from 90°34'00' west longitude westward to 90°46 minutes 00 seconds west longitude.

Closed at 6:00 a.m. July 11, 2011, in the remainder of Zone 2 except for the following waters within the Barataria Basin:

- That portion of state inside waters south of 29°26' 00" north latitude from 89°50'30' west longitude westward to the western shore of the Barataria Waterway.

Closed at 6:00 a.m. July 18, 2011 in the remainder of Zone 2.

2011 - Fall Inshore Shrimp Season

Opened at 6:00 a.m. Aug. 22, 2011.

Closed at official sunset Dec. 20, 2011.

2012 - Spring Inshore Shrimp Season

Opened at 6:00 a.m. May 7, 2012.

Closed at 6:00 a.m. June 23, 2012, except for the following waters:

- That portion of state inside waters from the eastern shore of South Pass of the Mississippi River westward to the eastern shore of Bayou Lafourche.

Closed at 6:00 am July 9, 2012, in the remainder of Zone 2.

*Mermentau, Calcasieu and Sabine River Basins*

2011 - Spring Inshore Shrimp Season

Opened at 6:00 a.m. May 16, 2011.

Closed at 6:00 a.m. July 18, 2011, except for the following waters:

- The portion of the Calcasieu Ship Channel originating at a line between Channel Markers 85 and 86 southward to a point originating along the inside/outside shrimp line at Calcasieu Pass

and including East Pass from its origin at the Calcasieu Ship Channel to the south end of Calcasieu Lake and West Pass from its origin at the Calcasieu Ship Channel to the south end of West Cove.

- That portion of Cameron Parish west of Calcasieu Lake.

Closed at 6:00 p.m. July 23, 2011, in the remainder of Zone .

#### 2011 - Fall Inshore Shrimp Season

Opened at 6:00 a.m. Aug. 22, 2011.

Closed at official sunset Dec. 20, 2011.

#### 2012 - Spring Inshore Shrimp Season

Opened at 6:00 a.m. May 21, 2012.

Closed at 6:00 a.m. July 9, 2012, except for the following waters:

- That portion of state inside waters from the eastern shore of the Calcasieu River Channel westward to the Louisiana/Texas state line.

Closed at 6:00 a.m. July 12, 2012, in the remainder of Zone 3

#### *Offshore Shrimp Seasons*

Closed at official sunset Dec. 20, 2011, in the following waters:

- That portion of state outside waters, south of the inside/outside shrimp line from the U.S. Coast Guard navigational light off the northwest shore of Caillou Boca at 29°03'10' north latitude and 90°5'27' west longitude westward to the western shore of Freshwater Bayou Canal at 92 °18' 33' west longitude.

Opened at 6:00 a.m. April 14, 2012, in the following waters:

- That portion of state outside waters south of the inside/outside shrimp line from the U.S. Coast Guard navigational light off the northwest shore of Caillou Boca at 29°03'10' north latitude and 90°5'27' west longitude westward to the Atchafalaya River Ship Channel at Eugene Island as delineated by the River Channel red buoy line.

Opened at 6:00 a.m. May 21, 2012, in the following waters:

- That portion of state outside waters south of the inside/outside shrimp line from the Atchafalaya River Ship Channel at Eugene Island as delineated by the River Channel red buoy line to the western shore of Freshwater Bayou at 92°18'33' west longitude.

## **INDUSTRY INITIATIVES**

One of the Office of Fisheries main objectives is to maintain the viability of Louisiana's fishing industries through programs that protect native resources and provide technical assistance to the industry, including recovery from natural and manmade disasters. The Office of Fisheries is pursuing several initiatives for Louisiana's commercial fishing industry including origin and quality certification programs, a seafood technology and equipment program, and a professionalization program which aims to create a more informed and efficient industry.

### **Seafood Certification**

In 2009, LDWF reprogrammed grant money from a NOAA grant to fund certification programs for Louisiana's seafood industry. The overarching plan for a broad certification program included five key

components: seafood origin/quality certification, seafood sustainability certification, industry professionalization, electronic traceability, and seafood marketing to promote the prior.

#### Seafood Origin/Quality Certification

During fiscal year 2011-2012 the Office of Fisheries took a more proactive role in developing the basic origin certification program and began working directly with DHH, LDAF, and the commercial industry to develop the Louisiana Wild Seafood Certification Program. The goal of the Louisiana Wild Seafood Certification Program is to increase sales and market potential for wild-caught Louisiana seafood.

By creating an origin based brand, LDWF, in cooperation with DHH and the Louisiana Department of Agriculture and Forestry, has the ability to communicate to the consumers that the seafood they are consuming is caught by a licensed Louisiana fisherman, landed in Louisiana, and processed by a Louisiana processor through the entire supply chain. The ability to create a national brand that can be sought out by chefs, consumers, distributors and retail chains will increase the demand and thereby prices for the Louisiana seafood fishery. Rules for the program were submitted for public comment in February 2012, and are expected to be finalized in August allowing for a program launch sometime in the fall of 2012.

While waiting for the program's rules to be finalized, the Office of Fisheries continued to work with the industry and the Louisiana Seafood Promotion and Marketing Board to promote the program, refine the application process, and develop a marketing strategy. Program logos have been finalized during this time.

#### LOUISIANA WILD SEAFOOD CERTIFICATION PROGRAM (LWSCP) OUTLINE & OVERVIEW

The official rules can be found in Chapter 7 of the Louisiana Department of Wildlife and Fisheries rules and regulations (LAC 76:I.Chapter 7).

#### Seafood Sustainability Certification

The goal of a seafood sustainability program is to manage Louisiana fisheries in a way that provides for today's needs without damaging the ability of the species to reproduce and be available for future generations. Many retailers worldwide have been under increasing pressure to "prove" that the seafood they are sourcing is from sustainable fisheries. Similar requirements are beginning to be made by U.S. retailers- including Wal-Mart, Target and Kroger's to name a few.



LDWF is seeking out mainstream certifications for major fisheries, such as those offered by the Marine Stewardship Council (MSC). In March 2012 Louisiana's blue crab fishery became the first blue crab fishery in the world to receive MSC sustainability certification. The Office of Fisheries will continue the upkeep required for certification, including conducting crab trap bycatch studies, sponsoring a diamondback terrapin population assessment, and meeting the annual conditions set by the MSC standards.

In addition to MSC certification, the Office of Fisheries is also investigating development of its own sustainability certification. The Office of Fisheries has partnered with the Audubon Commission to develop a sustainability certification program specifically for Louisiana, similar to those developed for Alaska and Iceland.

#### Industry Professionalization

The primary goal of this program is to create a better informed and more efficient commercial fishing industry. The program will provide ongoing education opportunities for fishermen and industry participants to receive the most relevant and up-to-date information as it pertains to their industry.

The Office of Fisheries continues to work with the Louisiana Sea Grant program located at LSU to develop a curriculum for a professionalization program that covers a variety of topics including: fishing/boating regulations and requirements, food quality and safety practices, advanced gear technology, business planning and marketing, seafood industry economics, and vessel safety.

#### Electronic Traceability

The goal of electronic traceability focuses on the ability to trace a product from water to the plate. Creating assurances about seafood depends on the management and timely access to critical information about the product as it moves throughout the supply chain. This information can be shared electronically with buyers, consumers, and other stakeholders for the purposes of innovating marketing, providing regulatory and buyer specification compliance, communicating Louisiana Department of Wildlife & Fisheries safety and quality, demonstrating certifications, and improving labeling practices.

Additionally, demand for seafood is partially driven by market confidence which in turn is driven by information. During fiscal year 2011-2012, the Office of Fisheries extensively researched the capabilities of different companies and assessed the needs of Louisiana's fishing industry with respect to electronic traceability. They also have lead the way, in an advisory capacity through GSMFC, on traceability initiatives for Gulf of Mexico seafood currently funded through oil spill disaster funds available to GSMFC.

#### **TASK FORCES**

The Office of Fisheries has three active task forces: Shrimp, Oyster and Crab. The task forces management is housed under the LDWF. The Office of Fisheries enjoys a close working relationship with the task forces. Cooperation between the task forces and the Office of Fisheries is essential as we move forward with the continued management of Louisiana's natural resources.

#### Shrimp Task Force

During fiscal year 2011-2012 the Shrimp Task Force continued to work on effective marketing techniques for seafood, shrimp specifically, and also holds LSPMB to be accountable and transparent with BP marketing funds. In addition they worked alongside the Office of Fisheries on the creation of seafood certification programs. Several issues were discussed pertaining to the industry, including: the "inside/outside" fishing line; federal TED laws and proposed changes; NOAA observers on board; increasing the maximum size of the skimmer net to 25 feet. The Shrimp Task Force also wrote to the Congressional Delegation concerning declining shrimp prices and fair Feinberg payments.  
[www.wlf.la.gov](http://www.wlf.la.gov)

### An Economic Survey of the Gulf of Mexico Inshore Shrimp Fishery

Gulf of Mexico shrimp are harvested commercially from “inshore” state waters (waters within the jurisdictional boundaries of the individual states) and from “offshore” federal waters. This study examines the economic performance of active commercial shrimp harvesters who primarily operated in inshore waters of western Florida, Alabama, Mississippi, Louisiana, and Texas throughout 2008. The data collection was designed by the GSMFC and LDWF to track the economic status and performance of vessels holding a state shrimp license for harvesting shrimp in the Gulf. Throughout the spring of 2009, 1,868 vessels were randomly selected, stratified by state, from a population of approximately 3,765 vessels holding a state shrimp harvesting license for the Gulf. After two mailings and a reminder postcard, 591 surveys were returned. This represented a region-wide response rate of approximately 34 percent. The data was subsequently entered and cleaned yielding a total number of 313 eligible, complete, and economically reasonable observations used in the financial analysis. Overall, the financial situation in 2008 was economically unsustainable for the average active inshore shrimp harvesting business. These results parallel similar research about the economic performance of the offshore fleet. Increasing fuel costs, increases in imported shrimp volume - which places downward pressure on domestic prices – as well as recent natural and man-made disasters continue to erode the economic vitality of the Gulf shrimp harvesting fleet.

### **GULF STATES MARINE FISHERIES COMMISSION**

The Gulf States Marine Fisheries Commission (GSMFC), a compact among the five Gulf States, is charged with promoting better utilization of the marine fisheries including finfish, shellfish and anadromous species through the development of programs for the promotion and protection of these fisheries while preventing any waste of these resources.

### Committee Participation

Fisheries biologists and economists participate in a number of GSMFC programs and initiatives including Aquatic Invasive Species, Interjurisdictional Fisheries, Fisheries Information Network, economics programs, as well as providing their expertise in the development of management recommendations. Additionally, Fisheries biologists serve on a number of GSMFC Technical Coordinating Sub-Committees including Data, SEAMAP, Habitat, Artificial Reef, Outreach, and species-specific committees and working groups. Fisheries’ biologists were present at meetings and discussions pertaining to the various SEAMAP programs. Louisiana moved for the creation of a SEAMAP Vertical Line workgroup after much discussion about current protocol. The motion passed, and is currently reviewing and making recommendations to improve the Vertical Line protocol. In addition, LDWF biologist participated in the creation of fishery management plans for Gulf menhaden and blue crab.

### **GULF OF MEXICO FISHERIES MANAGEMENT COUNCIL**

The Gulf of Mexico Fishery Management Council is responsible for the management of most fishing activities in the Exclusive Economic Zone (EEZ), Gulf waters from the state territorial line to 200 miles offshore. The council prepares Fishery Management Plans and amendments to these plans. Methods of regulation include quotas, size limits, bag limits, seasons, trip limits and other tools that fisheries managers employ to control both recreational and commercial harvests. Shrimp fisheries operating in federal waters off Louisiana have been managed by the Gulf of Mexico Fisheries Management Council

since 1981. The management plan history is summarized in Appendix C. Fishermen must have a permit to harvest shrimp in federal waters of the Gulf of Mexico. There is currently a moratorium on issuing new permits to reduce the number of boats participating in the fishery. Additional information is available at [www.gulfcouncil.org/fishery\\_management\\_plans/shrimp\\_management.php](http://www.gulfcouncil.org/fishery_management_plans/shrimp_management.php).

#### Louisiana Council Achievements

In fiscal year 2011-12 the Louisiana council proposed the creation of a Regional Management Amendment for the recreational red snapper fishery. A motion was passed allowing for recreational harvest of 1,600 tagged red snapper at fishing rodeos, out of season, around the Gulf of Mexico.

#### Committee Participation

The head of each state's fisheries division has a seat on the council along with representatives from the fishing industry. Louisiana's seat is assigned to Assistant Secretary Randy Pausina. His designee for council issues is Myron Fischer, who is delegated to act in his behalf. In addition to the Council seat, Office of Fisheries employees participate in advisory roles on various panels and committees: Outreach, Data Collection; Habitat Protection; and Scientific and Statistical Committees (SSCs) for red drum, mackerel, reef fish, shrimp, and socioeconomic. In addition, LDWF biologist are part of the SEDAR pool, a panel assigned to producing the council's stock assessments.

A list of the council's Fisheries Management Plans include: Reef Fish, Coastal Migratory Pelagics, Red Drum, Shrimp, Lobster, Stone Crab, Coral, Aquaculture, and Essential Fish Habitat. The council meets five times a year to work on amendments regarding these Fisheries Management Plans.

Louisiana has been a leader in the fisheries management council process. In April 2012 the council supported an Exempted Fishing Permit proposed by Louisiana, allowing for recreational harvest of 1,600 tagged red snapper at fishing rodeos out of season around the Gulf of Mexico. The valuable data collected by this study will be used to look at growth and reproduction of red snapper throughout their spawning season. Additionally, Louisiana has led the council process with the creation of a Regional Management Amendment for the recreational red snapper fishery. The council is currently working on developing a scoping document with information from all of the Gulf States and their recreational fishermen to devise a regional management plan that allows more flexibility and choice for recreational fishermen.

#### **SUSTAINABILITY STATUS**

Shrimp are essentially an "annual crop" – most shrimp do not survive longer than 2 years. Although scientists monitor shrimp abundance to ensure the stock is healthy, abundance is not an important consideration for fishery managers. Instead, managers consider historic harvest amounts and fishing rates in developing a management strategy for the fishery. Managers also look at the amount of surviving parents and environmental conditions, such as weather and water temperatures. As long as environmental conditions are favorable, shrimp are very productive and can rebound from low abundance one year to high abundance the next.

The most recent brown shrimp stock assessment (2011) showed that shrimp spawning biomass and recruitment have increased in recent years, while fishing mortality has decreased. This assessment also

concluded that that the Gulf of Mexico brown shrimp stock is abundant (not overfished) and is fished at a sustainable rate (no overfishing). Brown and white shrimp are both abundant and have not been classified as being overfished for more than 40 years. The National Marine Fisheries Service has determined that both fisheries are sustainable and overfishing is not occurring.

### **BYCATCH (BRDs/TEDs)**

Fishing gear used to harvest shrimp (including otter trawls and skimmer, butterfly , and cast nets) can incidentally capture non-targeted species such as finfish and other crustaceans. Fishermen in Louisiana are permitted to retain and sell most bycatch while in compliance with appropriate regulations and retain fish for personal consumption as long as it's within minimum size and recreational daily possession limits. LDWF monitors landings and sales of these species through the state's trip ticket reporting system. Some fishermen use bycatch reduction devices (BRDs) that prevent non-targeted species from being hauled in with the shrimp catch, but BRDs are only required when shrimping in federal waters which are designed to retain shrimp but allow fish to exit the net. Scientists monitor shrimp effort as a proxy for the amount of bycatch taken. If shrimp effort exceeds certain thresholds, federal managers do take measures to reduce bycatch such as setting effort limitations.

Otter trawls and skimmer and butterfly nets can incidentally catch sea turtles. Otter trawls must be equipped with Turtle Excluder Devices (TEDs), which allow captured turtles to escape, to meet federal sea turtle conservation requirements. Federal law enforcement agents enforce this regulation in state waters. Skimmer and butterfly nets are not required to have TEDs but must limit the time they tow their nets (75 minutes in the fall and winter and 55 minutes in the spring and summer) to reduce impacts on sea turtles. (Most turtles can survive for up to an hour or more underwater.) NOAA Fisheries is currently researching sea turtle bycatch in skimmer nets and increasing their outreach to the shrimp industry on tow time restrictions to improve compliance.



### **SEA TURTLE PROTECTION AND STRANDING RESPONSE**

The LDWF Office of Fisheries continues to receive and investigate all reports of live and dead marine mammals and sea turtles. LDWF personnel, including Fisheries biologists and enforcement agents, worked diligently to respond to these strandings reported by members of the public, local government officials, and the Natural Resource Advisors still working out on barrier islands and beaches.

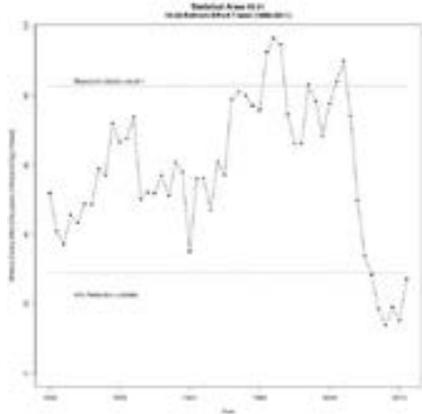
All sea turtle carcasses are recovered for necropsy to be performed by a veterinarian. Where logistically possible and appropriate, depending on the state of decomposition, marine mammal carcasses are also recovered for necropsies. Fisheries biologists work closely with our federal counterparts and staff at National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service to investigate the cause of deaths.

Since the onset of the Deepwater Horizon Oil Spill response through June 30, 2012, more than 425 live and dead sea turtles, including incidental captures, have been responded to, as well as over 310 live and dead marine mammals.

### **SHRIMP EFFORT REDUCTION**

NMFS recognizes bycatch of red snapper and other fish has been an issue in the shrimp trawl fishery, and has acted to address bycatch through gear development (i.e. TEDs, BRDs). Additional requirements have been adopted to reduce bycatch mortality which include shrimp effort reduction and restrictions, especially in areas where juvenile red snapper interactions are more common in the offshore 10- to 30-fathom depths of the western Gulf.

External factors have already played a major role in reducing shrimp effort. The combination of rising fuel costs, stagnant shrimp prices, and strong price competition from imported shrimp products has severely impacted the viability of the domestic fleet. This situation was exacerbated by the devastating effects of the 2005 hurricane season for the Gulf coasts of Alabama, Mississippi, Louisiana, and north Texas. NMFS currently estimates shrimp effort, and thus any associated impacts of shrimping in red snapper habitat are down by as much as 67-75% by area compared to the 2001-2003 benchmark years and red snapper populations are nearly recovered. In Louisiana, the number of licenses sold has decreased by up to 50% in the last decade or so, mainly as a result of storm damages, gas prices, low shrimp prices, etc.



### **HABITAT PROTECTION**

In inshore waters, shrimp are harvested over soft muddy bottoms, which are resilient to fishing gear impacts. No studies have indicated that shrimp harvesting has any significant effects on bottom-dwelling organisms. According to a National Academy of Science study, trawls in sandy/muddy habitat, common in the Gulf of Mexico, have a very low impact. Furthermore, in the Gulf of Mexico, trawlers must have a “weak-link” in the tickler chain to allow it to drop away if the chain gets hung up on natural bottom structures. (A tickler chain hangs in front of the net and drags along the ocean floor to stir up shrimp from the bottom into the net.) To avoid net damage, fishermen do not trawl in sensitive areas with coral reefs and other known areas of high-relief.

### **CLOSED & PROTECTED AREAS**

Many areas in Louisiana’s inside waters such as major internal basins and oyster grounds as previously described, and in the Gulf of Mexico are closed to shrimping for conservation and management purposes. There are also many areas that are unsuitable for trawling such as natural and artificial reefs, shelf-edge banks, oil platforms, pipelines and bottom obstructions which further limit any impacts on bottom habitat and other species.

### **STRATEGIC PLANNING/PERFORMANCE REVIEW**

The LDWF has established a strategic plan to guide the management and protection of its natural resources which contains a mission statement, vision statement, and philosophy at the department level, and for each program: mission, goal, activities, objectives, strategies, and performance measures.

Each program within the LDWF (Management and Finance, Administration/Enforcement, Wildlife, Fisheries) has a well-defined and highly structured process to evaluate and document performance

against objectives within the strategic plan. Those relating to Fisheries are included in Appendix A. The Strategic Plan Process Documentation is available online at <http://www.wlf.la.gov/about-ldwf>.

The State of Louisiana also requires that each agency (budget unit) receiving an appropriation in the general appropriation act or the ancillary appropriation act produce and submit quarterly Performance Progress Reports to the Louisiana Performance Accountability System (LaPAS) via a secure, web-based application electronic database that tracks performance standards, interim quarterly performance targets, and actual performance information for Louisiana's Executive Branch departments and agencies. The Office of Planning and Budget (OPB) in the Division of Administration, as the official record keeper of performance standards and information, maintains LaPAS (<http://www.doa.louisiana.gov/lapas/public/index.cfm>).

**LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES  
FIVE-YEAR STRATEGIC PLAN  
FISCAL YEAR 2014-2015 THROUGH 2018-2019**

<http://www.wlf.la.gov/about-ldwf>

**MISSION STATEMENT**

To manage, conserve, and promote wise utilization of Louisiana's renewable fish and wildlife resources and their supporting habitats through replenishment, protection, enhancement, research, development, and education for the social and economic benefit of current and future generations; to provide opportunities for and to encourage the use and enjoyment of these resources in a safe and healthy environment both on land and on water.

**VISION STATEMENT**

Through management and protection of wildlife and fish resources and habitats, Louisiana's Department of Wildlife and Fisheries will enhance the quality of life of the state's citizens and ensure sustainability of these resources.

**PHILOSOPHY**

The department's mission will be accomplished in a fair and equitable fashion using science-based information, open communication, and collaboration. The policies and actions of the department will be developed and carried out to foster the public's trust and respect and will be implemented in a way that encourages employee teamwork and partnerships with governmental and non-governmental entities.

**PROGRAM NAME: ENFORCEMENT**

**Mission**

The Mission of the Enforcement Division is to establish and maintain compliance through the execution and enforcement of laws, rules and regulations of the state relative to the management, conservation and protection of renewable natural wildlife and fisheries resources and relative to providing public safety on the state's waterways and lands for the continued use and enjoyment of current and future generations.

**Goal 1**

To support natural resource preservation by providing frontline enforcement component of laws, regulations, and programs related to wildlife and fisheries use, conservation and management. Hours worked and public contacts associated with wildlife, fisheries and ecosystem enforcement, education and community policing programs are the most relevant measures of the activities related to work toward improving and sustaining the state's natural resources.

#### Activity 1

##### Wildlife, Fisheries and Ecosystem Enforcement (Natural Resources)

LDWF/LED is responsible for assuring public compliance with state and federal laws, regulations, and programs which promote, manage and enhance the conservation of Louisiana's wildlife and fisheries resources and protect and sustain their supporting ecosystems. This activity is conducted through patrols of Louisiana's forest, woods and marshes, in vessel patrols of Louisiana's in-shore and off-shore waters and investigations of relevant commercial facilities. The LDWF/LED also conducts community policing activities which publicize legal practices, encourage voluntary compliance and promote safe participation in recreational and commercial activities which use Louisiana's natural resources.

OBJECTIVE 1. Provide professional law enforcement presence to execute statutory mandates for the management, protection and conservation of natural resources on our state's lakes and waters, improve regulatory compliance to successfully support resource management plans and protect the supporting ecosystem.

Strategy 1.1. Increase awareness of regulations associated with wildlife, fisheries and ecosystem activities.

Strategy 1.2. Increase voluntary compliance through effective and efficient patrol effort.

Strategy 1.3. Ensure reporting data accuracy and completeness.

Strategy 1.4. Review and evaluate compliance data, patrol/public contact data to measure and evaluate if plan objective is being met.

Strategy 1.5. Implement changes necessary annually to meet the objective of the plan. Assess and update the plan in five years.

Strategy 1.6. Maximize efficiency and outputs associated with funds received in support of wildlife, fisheries ecosystem enforcement activities.

Strategy 1.7. Seek new continued and creative funding sources.

Strategy 1.8. Implement community policing and outreach policy programs.

#### **PERFORMANCE MEASURES**

Outcome-Number of public contacts<sup>1</sup> associated with wildlife, fisheries and ecosystem enforcement.

Number of wildlife, fisheries and ecosystem enforcement patrol hours

Output - Percent of public observed to be in compliance with the state's laws, rules and regulations relative to wildlife, fisheries and ecosystem enforcement

Output – Percent of public observed to be in compliance with the state's laws, rules and regulations relative to recreational fishing.

Output – Percent of public observed to be in compliance with the state's laws, rules and regulations relative to commercial fishing/excluding oysters

Output – Percent of public observed to be in compliance with the state's laws, rules and regulations relative to oyster fishing

Output – Percent of public observed to be in compliance with the state's laws, rules, and regulations relative to commercial fishing

Output – Percent of public observed to be in compliance with the state's laws, rules and regulations relative to hunting/wildlife.

#### Statutory Authority for Goals

Legally mandated authority and responsibilities of sworn wildlife enforcement agents of the Enforcement Division

Provided for in the Constitution of the State of Louisiana; Louisiana Revised Statutes Title 56:01 et. Seq., Title 34 et. Seq., and R.S. 36:605 B (4) (a); U.S. Dept. of Commerce, NOAA / LDWF Law Enforcement; Cooperative Enforcement Agreement - Law Enforcement Services under: Magnuson-Stevens Fishery Conservation and Management Act; Endangered Species Act of 1973; Marine Mammal Protection Act of 1972; Lacey Act; U.S. Dept of Interior, USFWS / LDWF Law Enforcement; Memorandum of Agreement - Law Enforcement: Migratory Bird Treaty Act; Lacey Act; Migratory Bird Hunting and Conservation Stamp Act; Bald and Golden Eagle Protection Act; Airborne Hunting Act; National Wildlife Refuge System Administrative Act; Endangered Species Act, Marine Mammal Protection Act; Archeological Resources Protection Act; African Elephant Conservation Act; Antarctic Conservation Act; Wild Bird Conservation Act and Recreation Act; United States Coast Guard / LDWF Law Enforcement; Statement of Understanding - Boating Safety Regulations; BWI; Public Education and Training; Boating Accident Investigations; Search and Rescue; Regattas and Marine Parades; Louisiana Dept. of Health and Hospitals / LDWF Law Enforcement; Memorandum of Understanding - Louisiana Shellfish Sanitation Program; National Shellfish Sanitation Program.

#### **PROGRAM NAME: FISHERIES**

##### **Mission**

The purpose of the Fisheries program is to manage living aquatic resources and their habitat, to support the fishing industry, and to provide access, opportunity and understanding of the Louisiana aquatic resources to the State's citizens and others beneficiaries of these sustainable resources.

##### **Goal**

To provide high quality fishery management information through effective data collection, analysis and information sharing.

To be an effective, efficient steward of our renewable aquatic resources.

Provide and enhance recreational fishing experience through improved access, opportunity and public awareness.

Maintain a sustainable and economically viable fisheries environment.

Create a work environment in which all Fisheries staff are enabled and empowered to achieve the Office's goals and objectives.

#### Statutory Authority

LA Constitution of 1974, Article IX, Section 7; R.S. 56:1 et seq.; R.S. 36:601 et seq.; R.S. 30:214 et seq.; R.S. 35:3101 et seq.; and R.S. 30:2451 et seq.

#### Activity 1

(Fisheries Resource Management)The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

OBJECTIVE 1: Ensure that Louisiana's sport and commercial fish stocks are not overfished.

Strategy 1.1: Enhance the collection of biological and environmental data associated with fish and habitat resources from the State's waters.

Strategy 1.2: Develop indices of abundance for age-based stock assessments using enhanced fishery independent data.

Strategy 1.3: Improve the accuracy of and develop new stock assessments by enhancing fishery dependent information collected from the harvesters of the resource.

Strategy 1.4: Prepare and update fisheries management plans to keep up-to-date with new research findings to improve the accuracy and develop new stock assessments.

Strategy 1.5: Coordinate management of inter-jurisdictional fisheries with the other Gulf States and Federal government to improve our collective knowledge of species of concern and to continue the development of innovative stock assessments techniques.

Strategy 1.6: Prepare recommendations to the Louisiana Wildlife and Fisheries Commission and the Louisiana Legislature; promulgate, administer, and enforce rules and regulations as provided for in law; and administer statutorily authorized permit programs.

Strategy 1.7: Supplement public waters with sport fish and species of concern in support of management plans.

Strategy 1.8: Ensure that aquaculture and other activities involving aquatic, exotic species result in no adverse effects upon native fish populations in Louisiana.

## **PERFORMANCE MEASURES**

Outcome: Number of State managed fisheries overharvested.

Effectiveness: Percentage of scheduled finfish samples collected annually.

Effectiveness: Percentage of scheduled freshwater finfish samples collected annually.

Effectiveness: Percentage of scheduled shell fish (shrimp/crab) samples collected annually

Effectiveness: Percentage of scheduled oyster samples collected annually.

Effectiveness: Percentage of entered and verified commercial fishery trip tickets within 60 days of receipt.

Effectiveness: Percentage of scheduled Marine Recreational Information Program Dockside Intercepts collected annually

Output: Completed new or updated fisheries management plans annually

Output: Completed new or updated water body management plans annually

Outcome: Number of commercial fishing trips

Output: Number of scheduled finfish samples

Output: Number of scheduled freshwater finfish samples

Output: Number of scheduled shellfish samples

Output: Number of scheduled oyster samples

Output: Number so fish stocked

Output: Number of fish requested for stocking from with and without the Department

Outcome: National ranking in recreational marine finfishing (# days fished).

Outcome: National ranking in commercial marine shellfish.

Outcome: National ranking in commercial marine finfish landings.

Outcome: Number of licensed commercial fishers.

Outcome: Number of licensed saltwater recreational fishers.

### Activity 2

(Extension) Extension of the Department of Wildlife and Fisheries Office of Fisheries (LDWF/OF) accomplishes its objective by providing and maintaining artificial reefs, responding to threats from invasive species, managing public access sites and engaging and supporting the resource's beneficiaries.

OBJECTIVE 1: Responsible for public accessibility to the fisheries resource of the State and the outreach to promote and educate the public on the opportunities available.

Strategy 1.1: Administer the Louisiana Artificial Reef Program to create and enhance hard-bottom habitat for marine fisheries, and to promote recreational fishing through outreach.

Strategy 1.2: Increase awareness of Department's boating and fishing access project through direct correspondence.

Strategy 1.3: Closely monitor Federal funds available for projects to maximize utilization of boating and fishing access programs.

Strategy 1.4: Determine statewide infestations of problematic aquatic plants (water hyacinth, hydrilla, salvinia, alligator weed, etc.).

Strategy 1.5: Interface with the public to educate and promote Department programs and activities.

### **PERFORMANCE MEASURES**

Outcome: Number of Certified Fishing Licenses

Output: Number of public outreach events annually

Output: Number of individuals surveyed at outreach events

Effectiveness: Percentage of approved fish stocking request in accordance with type, number and size of requested fish.

Output: Number of acres treated to control undesirable aquatic vegetation.

Output: Facilitate 3 meetings per year for each of the task force (Shrimp, Crab, and Oyster)

Effectiveness: Percentage of seafood dealers in the certification program

Output: Number of commercial fishing entities receiving funding through advancement programs

### **Appendix A**

#### **PERFORMANCE INDICATOR DOCUMENTATION**

##### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Number of State managed fisheries over harvested.

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

Key

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

It is a measurable activity that is part of resource management and contributes to the overall goal of maintaining sustainable populations and increasing the opportunities for the public.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

It is used to monitor the effectiveness of this activity in meeting objective goals.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

This indicator will be reported annually based on data collected through the Office of Fisheries monitoring program.

7. Calculation and Methodology: How is the indicator calculated?

Through standardized fishery independent and dependant data collection.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

Managed fisheries can be impacted by climatic events as well as manmade or natural disasters.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Glenn Thomas, Biologist Director, 225-765-2935

## **PERFORMANCE INDICATOR DOCUMENTATION**

### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Percentage of scheduled finfish samples collected annually.

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

Supporting

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

It is a measurable activity that is part of resource management and contributes to the overall goal of maintaining sustainable populations and increasing the opportunities for the public. Results of the samples are used to monitor stock status, ensuring health of renewable resources.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

Data from this activity will be used in preparing fisheries management decisions such as but not limited to seasons and harvest limits.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

This data is collected by fisheries staff throughout the fiscal year and is reported annually.

7. Calculation and Methodology: How is the indicator calculated?

Numeric goals are set annually for finfish samples. Actual samples completed are reported from field offices and staff on a monthly basis for monitoring purposes, and compiled annually. This indicator is a percentage of the goal met.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

The indicator can be impacted by uncontrollable, external factors such as climatic events and manmade or natural disasters. Bad weather (e.g. prolonged periods of high winds, tropical events, etc.) could impact the ability to collect scheduled samples. Such factors could reduce the percentage of samples collected.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Harry Blanchet, Biologist Director, 225-765-2889

## **PERFORMANCE INDICATOR DOCUMENTATION**

### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Percentage of scheduled freshwater finfish samples collected annually.

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

Supporting

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

It is a measurable activity that is part of resource management and contributes to the overall goal of maintaining sustainable populations and increasing the opportunities for the public.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

Data from this activity will be used in preparing fisheries management decisions such as but not limited to seasons and creel limits.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

This data is collected by fisheries staff throughout the fiscal year and is reported annually.

7. Calculation and Methodology: How is the indicator calculated?

Goals are set annually for freshwater finfish samples. Actual samples are reported from field offices and staff. This indicator is a percentage of the goal met.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

Managed fisheries can be impacted by climatic events as well as manmade or natural disasters.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Mike Wood, Biologist Director, 225-765-2331

### **PERFORMANCE INDICATOR DOCUMENTATION**

#### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Percentage of scheduled shell fish (shrimp/crab) samples collected annually.

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

Supporting

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

It is a measurable activity that is part of resource management and contributes to the overall goal of maintaining sustainable populations and increasing the opportunities for the public. Results of the samples are used to monitor stock status, ensuring health of renewable resources while providing maximum harvest opportunities for the users of the resources.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

Data from this activity will be used in preparing fisheries management decisions such as but not limited to seasons and harvest limits.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

This data is collected by fisheries staff throughout the fiscal year and is reported annually.

7. Calculation and Methodology: How is the indicator calculated?

Numeric goals are set annually for shellfish samples. Actual samples completed are reported from field offices and staff on a weekly or monthly basis for monitoring purposes, and compiled annually. This indicator is a percentage of the goal met.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

The indicator can be impacted by uncontrollable, external factors such as climatic events and manmade or natural disasters. Bad weather (e.g. prolonged periods of high winds, tropical events, etc.) could impact the ability to collect scheduled samples. Such factors could reduce the percentage of samples collected.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Harry Blanchet, Biologist Director, 225-765-2889

### **PERFORMANCE INDICATOR DOCUMENTATION**

#### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Percentage of scheduled oyster samples collected annually

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

Supporting

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

It is a measurable activity that is part of resource management and contributes to the overall goal of maintaining sustainable populations and increasing the opportunities for the public.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

Data from this activity will be used in preparing fisheries management decisions such as but not limited to seasons and harvest limits.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

This data is collected by fisheries staff throughout the fiscal year and is reported annually.

7. Calculation and Methodology: How is the indicator calculated?

Numeric sampling goals are set annually. Actual samples completed are reported from field offices and staff on a monthly basis, and aggregated annually. This indicator is a percentage of the goal met.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

The indicator can be impacted by uncontrollable, external factors such as climatic events and manmade or natural disasters. Bad weather (e.g. prolonged periods of high winds, tropical events, etc.) could impact the ability to collect scheduled oyster samples. Such factors could reduce the percentage of oyster samples collected.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Harry Blanchet, Biologist Director, 225-765-2889

## **PERFORMANCE INDICATOR DOCUMENTATION**

### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Percentage of entered and verified commercial fishery trip tickets within 60 days of receipt

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

Supporting

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

Trip tickets are commercial landings data used by Department to assess health of fisheries populations.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

By monitoring the catch sold by commercial fisherman the Department is able to develop indices to monitor fisheries populations.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

Data undergoes a list of QA/QC's in order to clean up the data and correct any inaccuracies.

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

Trip tickets must be sent to the department by the 10th of the month for the preceeding month. Reported monthly to Gulf States Marine Fisheries Commission upon complete QA/QC check.

7. Calculation and Methodology: How is the indicator calculated?

Trip tickets are either submitted electronically or mailed forms are sent to the department

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Trip ticket data can be broken down by area but confidentiality must always be a priority.

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

Data received is dependent on the industry to report according to state law.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Vince Cefalu, Biologist Manager, 225-765-2394

Michael Harden, Biologist DCL-A, 225-765-2371

### **PERFORMANCE INDICATOR DOCUMENTATION**

#### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Percentage of scheduled Marine Recreational Information Program

Dockside Intercepts collected annually

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

Supporting

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

It is a measurable activity that is part of resource management and contributes to the overall goal of maintaining sustainable populations and increasing the opportunities for

the public.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

Used to generate estimates of anglers catch and effort and helps set fishing regulations.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the

Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited.

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

The data is collected throughout the year by fisheries staff. It is reported monthly and bimonthly to the Gulf States Marine Fisheries Commission.

7. Calculation and Methodology: How is the indicator calculated?

Goals are set monthly/bi-monthly by NOAA. Forms are sent to HQ for QA/QC from field staff. All goals must be met.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

MRIP for LA is part of a larger whole of the entire Gulf of Mexico. It can be broken down by state and region.

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

Can be impacted by climatic events as well as man-made or natural disasters. Also, willingness of public participation.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Nicole Smith, Biologist Program Manager, 225-765-2365

### **PERFORMANCE INDICATOR DOCUMENTATION**

#### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Completed new or updated fisheries management plans annually

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

Supporting

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

Helps quantify the work and effort LDWF puts into fisheries management. The current management and sustainability climate requires frequently updated and clearly defined management plans.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

Internal management purposes. This indicator helps LDWF determine if it is providing the most up to date information on fishery management practices to all interested parties.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited.

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

List of published documents. Annual

7. Calculation and Methodology: How is the indicator calculated?

By summing up the number of publicly released FMPs

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

No

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Jason Froeba, Biologist Director 225-765-0121

### **PERFORMANCE INDICATOR DOCUMENTATION**

#### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and

visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Completed new or updated water body management plans annually

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

Supporting

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

Water body management plans are a compilation of lake description, history, authorities, synopsis of fisheries and vegetation sampling data, analyses, corrective measures needed and recommend actions. These plans are used to share and communicate our efforts to the public including recreational users and constituent groups.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

The indicator will be used to measure the work performance of Inland Fisheries staff and to ensure that the information in the documents is up to date.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

Plans are updated and/or completed on a monthly basis.

7. Calculation and Methodology: How is the indicator calculated?

The indicator is the sum of completed and/or updated plans.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

No

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Mike Wood, Biologist Director 225-765-2331

### **PERFORMANCE INDICATOR DOCUMENTATION**

#### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Number of commercial fishing trips

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

General

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

This indicator is an indirect measure of how effectively LDWF is managing the resource.

Commercial industry fishing activity can be an indicator of how abundant and economically viable a fishery is.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

Internal management. Low levels of fishing activity can alert LDWF that there is a problem with the resource and indicate the need to review management measures.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the

Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

LDWF trip ticket database. Reported annually.

7. Calculation and Methodology: How is the indicator calculated?

Direct sum of the number of vessel trips reported on trip tickets

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

Seasonal variants and natural events can impact participation beyond the influence of the Agency.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Glenn Thomas, Biologist Director 225-765-2935

### **PERFORMANCE INDICATOR DOCUMENTATION**

#### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Number of scheduled finfish samples

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

General

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

It is a measurable activity that is part of resource management and contributes to the overall goal of maintaining sustainable populations and increasing the opportunities for the public. Results of the samples are used to monitor stock status, ensuring health of renewable resources.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

It is used to monitor the effectiveness of this activity in meeting objective goals

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

This data is collected by fisheries staff throughout the fiscal year and is reported annually.

7. Calculation and Methodology: How is the indicator calculated?

Numeric goals are set annually for finfish samples. Actual samples completed are reported from field offices and staff on a monthly basis for monitoring purposes, and compiled annually.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

The indicator can be impacted by uncontrollable, external factors such as climatic events and manmade or natural disasters. Bad weather (e.g. prolonged periods of high winds, tropical events, etc.) could impact the ability to collect scheduled samples. Such factors could reduce the percentage of samples collected.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Harry Blanchet, Biologist Director, 225-765-2889

#### **PERFORMANCE INDICATOR DOCUMENTATION**

**Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and

visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Number of scheduled freshwater finfish samples

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

General

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

For inland water bodies, fisheries personnel estimated relative abundance, age, growth and mortality, size class structure and species composition, and genetics of sport fish populations and physiochemical characteristics of the water on 81 lakes, rivers and streams. All waters are sampled in a similar manner so data from the different water bodies is comparable from year to year.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

It is used to monitor the effectiveness of this activity in meeting objective goals

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

Data is entered into the Data Management System (DMS). Information is collected from various gear types year round.

7. Calculation and Methodology: How is the indicator calculated?

Sum of samples collected from all gear types.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

No.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Mike Wood, Biologist Director 225-765-2331

### **PERFORMANCE INDICATOR DOCUMENTATION**

#### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Number of scheduled shellfish samples

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

General

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

It is a measurable activity that is part of resource management and contributes to the overall goal of maintaining sustainable populations and increasing the opportunities for the public. Results of the samples are used to monitor stock status, ensuring health of renewable resources.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

It is used to monitor the effectiveness of this activity in meeting objective goals

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the

Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

This data is collected by fisheries staff throughout the fiscal year and is reported annually.

7. Calculation and Methodology: How is the indicator calculated?

Numeric goals are set annually for finfish samples. Actual samples completed are reported from field offices and staff on a monthly basis for monitoring purposes, and compiled annually.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

The indicator can be impacted by uncontrollable, external factors such as climatic events and manmade or natural disasters. Bad weather (e.g. prolonged periods of high winds, tropical events, etc.) could impact the ability to collect scheduled samples. Such factors could reduce the percentage of samples collected.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Harry Blanchet, Biologist Director, 225-765-2889

### **PERFORMANCE INDICATOR DOCUMENTATION**

**Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Number of scheduled oyster samples

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

General

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

It is a measurable activity that is part of resource management and contributes to the overall goal of maintaining sustainable populations and increasing the opportunities for the public. Results of the samples are used to monitor stock status, ensuring health of renewable resources.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

It is used to monitor the effectiveness of this activity in meeting objective goals

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

This data is collected by fisheries staff throughout the fiscal year and is reported annually.

7. Calculation and Methodology: How is the indicator calculated?

Numeric goals are set annually for finfish samples. Actual samples completed are reported from field offices and staff on a monthly basis for monitoring purposes, and compiled annually.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

The indicator can be impacted by uncontrollable, external factors such as climatic events and manmade or natural disasters. Bad weather (e.g. prolonged periods of high winds, tropical events, etc.) could impact the ability to collect scheduled samples. Such factors could reduce the percentage of samples collected.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Harry Blanchet, Biologist Director, 225-765-2889

## **PERFORMANCE INDICATOR DOCUMENTATION**

### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Number of fish stocked

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

General

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

The fish hatchery program provides and stocks fish as a management tool to enhance statewide sport fisheries, hasten the recovery of fisheries affected by natural or man-made disasters, and produce threatened or endangered species when necessary. The hatchery program also assists other local, state and federal agencies by providing fish and/or fish transportation services for outreach activities that introduce or encourage fishing.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

It is used to monitor the effectiveness of this activity in meeting objective goals.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

Quarterly

7. Calculation and Methodology: How is the indicator calculated?

Estimates are made for each load of fish being stocked. A sample of fish is used to determine a number of fish per weight then that number is multiplied by the total weight of the load. The estimate numbers for each load are summed to get a number of fish stocked per quarter.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Disaggregated – Yes it can be broken down by parish or region

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

No

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Jason Duet, Biologist Director, 225-765-2333

#### **PERFORMANCE INDICATOR DOCUMENTATION**

##### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through

interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Number of fish requested for stocking from with and without the

Department

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

General

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

Each year a statewide fish stocking request list is compiled by the Fisheries section based

on fisheries management objectives and standardized sampling results for individual water-bodies throughout the state. Hatchery production is based on these requests.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

It is used to monitor the effectiveness of this activity in meeting objective goals.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

N/A

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

Annual stocking requests are compiled by fisheries biologists based on fisheries management objectives and standardized sampling results for individual waterbodies.

7. Calculation and Methodology: How is the indicator calculated?

Number of fish requested for a particular quarter are summed.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Disaggregated – can be broken down by parish or region

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

No

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Jason Duet, Biologist Director, 225-765-2333

## **PERFORMANCE INDICATOR DOCUMENTATION**

### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: National ranking in recreational marine finfishing (# days fished)

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

General

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

This indicator is an indirect measure of how effectively LDWF is managing the resource.

Commercial industry fishing activity can be an indicator of how abundant and economically viable a fishery is in comparison to other states.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

Internal management. Low levels of fishing activity in comparison to other states can alert LDWF that there is a problem with the resource and indicate the need to review management measures.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes.

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the

Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

N/A

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

LDWF and Federal commercial landings data

7. Calculation and Methodology: How is the indicator calculated?

Commercial shellfish landings are summed and directly compared to landings of other states.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

Seasonal variants and natural events can impact participation beyond the influence of the Agency.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Glenn Thomas, Biologist Director

### **PERFORMANCE INDICATOR DOCUMENTATION**

#### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to

efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: National ranking in commercial marine shellfish

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

General

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

This indicator is an indirect measure of how effectively LDWF is managing the resource.

Commercial industry fishing activity can be an indicator of how abundant and economically viable a fishery is in comparison to other states.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

Internal management. Low levels of fishing activity in comparison to other states can alert LDWF that there is a problem with the resource and indicate the need to review management measures.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes.

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

N/A

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

LDWF and Federal commercial landings data

7. Calculation and Methodology: How is the indicator calculated?

Commercial shellfish landings are summed and directly compared to landings of other states.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

Seasonal variants and natural events can impact participation beyond the influence of the Agency.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Glenn Thomas, Biologist Director

### **PERFORMANCE INDICATOR DOCUMENTATION**

#### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: National ranking in commercial marine finfish landings

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

General

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

This indicator is an indirect measure of how effectively LDWF is managing the resource.

Commercial industry fishing activity can be an indicator of how abundant and economically viable a fishery is in comparison to other states.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

Internal management. Low levels of fishing activity in comparison to other states can alert LDWF that there is a problem with the resource and indicate the need to review management measures.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

N/A

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

LDWF and Federal commercial landings data

7. Calculation and Methodology: How is the indicator calculated?

Commercial finfish landings are summed and directly compared to landings of other states.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

Seasonal variants and natural events can impact participation beyond the influence of the Agency.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Jason Froeba, Biologist Director

## **PERFORMANCE INDICATOR DOCUMENTATION**

### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Number of licensed commercial fishers

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

General

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

This indicator is an indirect measure of how effectively LDWF is managing the resource.

Commercial license sales can be an indicator of how abundant and economically viable a fishery is.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

Internal management. Low levels of license sales can alert LDWF that there is a problem with the resource and indicate the need to review management measures.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

N/A

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

LDWF licensing database

7. Calculation and Methodology: How is the indicator calculated?

Direct sum of the number of commercial fishing licenses sold

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

Seasonal variants and natural events can impact participation beyond the influence of the Agency.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Jason Froeba, Biologist Director

### **PERFORMANCE INDICATOR DOCUMENTATION**

#### **Program: FISHERIES – Fisheries Resource Management**

Objective: The Office of Fisheries collects the basic ecological data needed to efficiently and effectively manage fishery resources to benefit constituent groups, i.e., commercial and recreational users, and visitors. Marine fishery sustainability is further accomplished through interstate compacts that develop joint programs to manage common resources for the benefit of all.

Indicator Name: Number of licensed saltwater recreational fishers

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

General

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

This indicator is an indirect measure of how effectively LDWF is managing the resource.

Recreational license sales can be an indicator of how abundant and economically viable a fishery is.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

Internal management. Low levels of license sales can alert LDWF that there is a problem with the resource and indicate the need to review management measures.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

N/A

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

LDWF licensing database

7. Calculation and Methodology: How is the indicator calculated?

Direct sum of the number of commercial fishing licenses sold

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

Seasonal variants and natural events can impact participation beyond the influence of the Agency.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Jason Froeba, Biologist Director

### **PERFORMANCE INDICATOR DOCUMENTATION**

#### **Program: FISHERIES – Extension**

Objective: Extension of the Department of Wildlife and Fisheries Office of Fisheries (LDWF/OF) accomplishes its objective by providing and maintaining artificial reefs, responding to threats from invasive species, managing public access sites and engaging and supporting the resource's beneficiaries.

Indicator Name: Number of Certified Fishing Licenses

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

Key

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

The indicator reflects the level of public participation in the programs offered through the Agency.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

It creates an index to validate or scrutinize the success of the programs funded through the Agency. This information will be used in the management and budgeting of the Agency's programs.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, the indicator is a direct accounting of the number of records.

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

The source of the data is from certified hunting licensed holders and commercial alligator and trapping licensed holders. This information is provided and validated by the Federal U. S. Fish and Wildlife Service each year.

7. Calculation and Methodology: How is the indicator calculated?

Simple addition of sold products offered through the agency.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Disaggregated,

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

Seasonal variants and natural events can impact participation beyond the influence of the Agency.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Cara Tyler, Biologist Director, 225-765-2806

## **PERFORMANCE INDICATOR DOCUMENTATION**

### **Program: FISHERIES – Extension**

Objective: Extension of the Department of Wildlife and Fisheries Office of Fisheries (LDWF/OF) accomplishes its objective by providing and maintaining artificial reefs, responding to threats from invasive species, managing public access sites and engaging and supporting the resource's beneficiaries.

Indicator Name: Number of public outreach events annually

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

Supporting

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

By assessing, evaluating and showing the number of resource beneficiaries we connect with each year. Through outreach efforts, LDWF advises beneficiaries on stewardship and best practices in preserving the unique nature of the state's natural resources. Via a strong presence at youth recreational events, industry-related expos and other state sponsored events, the department strives to align its efforts with the desires of citizens and foster a community sense of resource and habitat stewardship.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

It is used to monitor the effectiveness of this activity in meeting objective goals.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

LDWF outreach personnel report the number of events held to their supervisor weekly.

7. Calculation and Methodology: How is the indicator calculated?

Attendance is taken at each event attended and continuously totaled.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

No

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Jason Duet, Biologist Director 225-765-2333

## **PERFORMANCE INDICATOR DOCUMENTATION**

**Program: FISHERIES – Extension**

Objective: Extension of the Department of Wildlife and Fisheries Office of Fisheries (LDWF/OF) accomplishes its objective by providing and maintaining artificial reefs, responding to threats from invasive species, managing public access sites and engaging and supporting the resource's beneficiaries.

Indicator Name: Number of individuals surveyed at outreach events

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

Supporting

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

To evaluate the effectiveness of connecting with LDWF's constituents, staff gather immediate feedback from the beneficiaries at each event helps determine the effectiveness. Through outreach efforts, LDWF advises beneficiaries on stewardship and best practices in preserving the unique nature of the state's natural resources. Via a strong presence at youth recreational events, industry-related expos and other state sponsored events, the department strives to align its efforts with the desires of citizens and foster a community sense of resource and habitat stewardship.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

It is used to monitor the effectiveness of this activity in meeting objective goals.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

LDWF biologists report this information after each event and compile weekly.

7. Calculation and Methodology: How is the indicator calculated?

Number of completed surveys are counted.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Disaggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

Yes, you cannot survey every single person at some of the larger events attended.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Jason Duet, Biologist Director 225-765-2333

### **PERFORMANCE INDICATOR DOCUMENTATION**

#### **Program: FISHERIES – Extension**

Objective: Extension of the Department of Wildlife and Fisheries Office of Fisheries (LDWF/OF) accomplishes its objective by providing and maintaining artificial reefs, responding to threats from invasive species, managing public access sites and engaging and supporting the resource's beneficiaries.

Indicator Name: Percentage of approved fish stocking request in accordance with type, number and size of requested fish.

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

Supporting

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

The fish hatchery program provides and stocks fish as a management tool to enhance statewide sport fisheries, hasten the recovery of fisheries affected by natural or man-made disasters, and produce threatened or endangered species when necessary. The hatchery program also assists other local, state and federal agencies by providing fish and/or fish transportation services for outreach activities that introduce or encourage fishing.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

It is used to monitor the effectiveness of this activity in meeting objective goals.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

Annual stocking requests are compiled by fisheries biologists based on fisheries management objectives and standardized sampling results for individual waterbodies.

Production is based on these requests

7. Calculation and Methodology: How is the indicator calculated?

The number of fish stocked divided by the number requested.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Disaggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

No

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Jason Duet, Biologist Director 225-765-2333

## **PERFORMANCE INDICATOR DOCUMENTATION**

### **Program: FISHERIES – Extension**

Objective: Extension of the Department of Wildlife and Fisheries Office of Fisheries (LDWF/OF) accomplishes its objective by providing and maintaining artificial reefs, responding to threats from invasive species, managing public access sites and engaging and supporting the resource's beneficiaries.

Indicator Name: Number of acres treated to control undesirable aquatic vegetation

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

Key

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

Aquatic vegetation shall be controlled so as to provide boating access for fishing and hunting interests. It shall be the policy of the Department to eradicate, if possible, or control those plants designated under Federal and State statutes as invasive and exotic noxious species. The control rather than elimination of problematic native species shall be advocated, as these plants are part of and provide benefit to our natural aquatic ecosystem.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

This indicator will be used to determine the effort necessary to maintain boating access in water bodies with nuisance aquatic vegetation problems. The number of acres treated will be used to determine the number of employees needed and the budget for the plant control program.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

N/A

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

The number of acres treated to control aquatic nuisance vegetation is entered into the Data Management System (DMS). Data is entered into the system on a daily basis.

7. Calculation and Methodology: How is the indicator calculated?

The indicator is the sum of acres treated statewide.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

The indicator is aggregated and is the sum of acres treated by 9 Inland Fisheries districts. The number of acres can be broken down by district, water body, parish, and/or crew.

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

If the number of acres treated decreases from one year to the next, this could be a result of a decrease in vegetation coverage and not a decrease in effort.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Mike Wood, Biologist Director 225-765-2331

### **PERFORMANCE INDICATOR DOCUMENTATION**

#### **Program: FISHERIES – Extension**

Objective: Extension of the Department of Wildlife and Fisheries Office of Fisheries (LDWF/OF) accomplishes its objective by providing and maintaining artificial reefs, responding to threats from invasive species, managing public access sites and engaging and supporting the resource’s beneficiaries.

Indicator Name: Facilitate 3 meetings per year for each of the task force (Shrimp, Crab, and Oyster)

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

Supporting

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

Directly measures LDWF’s ability to engage the commercial industry in management decisions.

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

This indicator is for internal management purposes. It holds LDWF to a commitment for engaging the commercial industry. It will also help LDWF make decisions on the frequency of meetings and the need for commercial industry involvement.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

Public records and notes from the taskforce coordinator

7. Calculation and Methodology: How is the indicator calculated?

The number of meetings for each species is summed

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Disaggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

No

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Jason Froeba, Biologist Director

### **PERFORMANCE INDICATOR DOCUMENTATION**

#### **Program: FISHERIES – Extension**

Objective: Extension of the Department of Wildlife and Fisheries Office of Fisheries (LDWF/OF) accomplishes its objective by providing and maintaining artificial reefs, responding to threats from invasive species, managing public access sites and engaging and supporting the resource's beneficiaries.

Indicator Name: Percentage of seafood dealers in the certification program

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

Key

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

Measures the popularity and success of LDWF's seafood certification program. It directly quantifies how LDWF is engaging and supporting the resource's beneficiaries. As a voluntary program, participation rate can be directly correlated to how beneficial the program is to the industry

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes? It will be used for both internal management and budgeted purposes. This indicator will help determine if LDWF needs to make adjustments to program regulations or direct additional funding toward marketing.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)? The data used to report this indicator is taken from a sequel database specifically designed to track seafood certification participation.

7. Calculation and Methodology: How is the indicator calculated?

The number of participants is summed by category and program and then a total sum is produced. This sum is divided by the total number of wholesale / retail and retail license holders.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

This indicator is dependent on factors outside of LDWF's control. Commercial industry applicants.

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Jason Froeba, Biologist Director

## **PERFORMANCE INDICATOR DOCUMENTATION**

### **Program: FISHERIES – Extension**

Objective: Extension of the Department of Wildlife and Fisheries Office of Fisheries (LDWF/OF) accomplishes its objective by providing and maintaining artificial reefs, responding to threats from invasive species, managing public access sites and engaging and supporting the resource's beneficiaries.

Indicator Name: Number of commercial fishing entities receiving funding through advancement programs

1. Type and Level: What is the type of the indicator (input, output, outcome, efficiency, quality)? What is the level at which the indicator will be reported (key, supporting, general performance information)?

Key

2. Rationale: What is the rationale for the indicator? Why was it selected? How does it help measure achievement of the objective?

Measures the proper use of statutorily dedicated funds as well as disaster funds directed at assisting the commercial fishing industry. It directly quantifies how LDWF is engaging and supporting the resource's beneficiaries

3. Use: How will the indicator be used in management decision-making and other agency processes? Will it be used only for internal management purposes or will it also be used for budgeted purposes?

It will be used for both internal management and budgeted purposes. This indicator will help determine if LDWF is offering the right types of programs and if funding should be redirected or carried forward.

4. Clarity: Does the indicator name clearly identify what is being measured? If the name contains jargon, acronyms, or unclear terms, define or clarify them here.

Yes

5. Validity, Reliability, and Accuracy: Has the indicator been audited by the Office of the Legislative Auditor? If so, what was the result/finding? If not, how can you assure that the indicator is valid, reliable and accurate?

No, this is a new indicator and has not been audited

6. Data Source, Collection and Reporting: What is the source of data to be reported? What is the frequency and timing of collection and reporting (monthly, quarterly, annual)?

The data used to report this indicator is taken from accounting and grant management software that tracks the number of entities receiving funding.

7. Calculation and Methodology: How is the indicator calculated?

The number of participants receiving funding is summed by category and program and then a total sum is produced.

8. Scope: Is the indicator aggregated or disaggregated (is it a sum of smaller parts or is it a part of a larger whole)? Example – if the indicator is a statewide figure, can it be broken down by parish or region?

Aggregated

9. Caveats: Does the indicator have limitations or weaknesses (lack of precision or timeliness, difficult to collect, external factors)?

This indicator is dependent on factors outside of LDWF's control. Commercial industry applicants

10. Responsible Person: Who is responsible for data collection, analysis and quality?

Provide name, title, and contact information for all persons involved in collection and reporting.

Jason Froeba, Biologist Director

## **Appendix B**

### **Agency Structure**

The Louisiana Department of Wildlife and Fisheries (LDWF), the Louisiana Wildlife and Fisheries Commission (LWFC) and the Louisiana Wildlife and Fisheries Foundation (LWFF) form the current structure of fisheries management in Louisiana.

Legislature empowers the LDWF or the LWFC to carry out certain fisheries management activities, or in some cases, it restrains what these agencies may do. All laws respecting management of the State's fisheries that have been enacted over the years are contained in a wide array of statutes under Title 56 of the Louisiana Revised Statutes.

The LDWF is in the executive branch of government; and is the state agency responsible for management of the state's renewable natural resources including all wildlife and all aquatic life. Specifically, the LDWF, is given statutory authority by RS 56:6 (25)(a) to "set seasons, times, places, size limits, quotas, daily take, and possession limits, based upon biological and technical data, for all wildlife and fish. Any such rule or regulation shall have as its objective the sound conservation, preservation, replenishment, and management of that species for maximum continuing social and economic benefit to the state without overfishing that causes short-term or long-term biological damage to any species, and regarding all species of fish, without overfishing that leads to such damage". The LDW&F is headed by a Secretary, a non-elected official appointed by the Governor and confirmed by the State Senate.

The Louisiana Wildlife and Fisheries Commission is a policy decision-making body but it also can set opening times for specified fisheries and conducts adjudicatory hearings on license suspensions or sanctions. Its decisions can be informed by input from LDWF and the fishing industry. These could result in new actions by the LDWF or new legislation enacted by the Legislature. The Louisiana Wildlife and Fisheries Foundation is a non-profit public, charitable foundation, tax exempt under Section 501(C) (3) of the Internal Revenue Code. Its goals include habitat conservation, environmental education and training, natural resource research and management and general financial assistance to the LDW&F programs and projects so that it may better serve the public.

## **APPENDIX C**

### **GOM Shrimp Fishery Management Plan**

#### **Original Fishery Management Plan**

The shrimp FMP was implemented as federal regulation May 20, 1981. The principal thrust of the plan was to enhance yield in volume and value by deferring harvest of small shrimp to provide for growth. Principle action included:

1. establishing a cooperative Tortugas Shrimp Sanctuary with the state of Florida to close a shrimp trawling area where small pink shrimp comprise the majority of the population most of the time.
2. a cooperative 45-day seasonal closure with the state of Texas to protect small brown shrimp emigrating from bay nursery areas; and

3. seasonal zoning of an area of Florida Bay for either shrimp or stone crab fishing to avoid gear conflict.

The FMP also established reporting systems for vessels, dealers, and processors.

#### Shrimp Amendment 1

Amendment 1, approved in 1981, provided the Regional Administrator of NMFS with the authority to adjust by regulatory amendment the size of the Tortugas Sanctuary or the extent of the Texas closure, or to eliminate either closure for one year. It updated and revised the text of the FMP.

#### Shrimp Amendment 2

Amendment 2 (1981) updated catch and economic data in the FMP.

#### Shrimp Amendment 3

Amendment 3 (1984) resolved another shrimp-stone crab gear conflict on the west central Florida coast.

#### Shrimp Amendment 4

Amendment 4, partially approved in 1988 and finalized in 1989, identified problems that developed in the fishery and revised the objectives of the FMP accordingly. The annual review process for the Tortugas Sanctuary was simplified, and the GMFMC's and RA's review for the Texas closure was extended to February 1st. Disapproved was a provision that white shrimp taken in the EEZ be landed in accordance with a state's size/possession regulations to provide consistency and facilitate enforcement with the state of Louisiana. This latter action was to have been implemented at such time when Louisiana provided for an incidental catch of undersized white shrimp in the fishery for seabobs.

#### Shrimp Amendment 5

In July 1989, NMFS published revised guidelines for FMPs that interpretatively addressed the Magnuson Act National Standards. These guidelines require each FMP to include a scientifically measurable definition of overfishing and an action plan to arrest overfishing should it occur. In 1990, Texas revised the period of its seasonal closure in Gulf waters from June 1 to July 15, to May 15 to July 15. The FMP did not have enough flexibility to adjust the cooperative closure of federal waters to accommodate this change, thus an amendment was required.

Amendment 5 also defined overfishing for Gulf brown, pink, and royal red shrimp and provided for measures to restore overfished stocks if overfishing should occur. Action on the definition of overfishing for white shrimp was deferred, and seabobs and rock shrimp were deleted from the management unit. This duration of the seasonal closure to shrimping off Texas was adjusted to conform with the changes in state regulations.

#### Shrimp Amendment 6

Amendment 6 (1993) eliminated the annual reports and reviews of the Tortugas Shrimp Sanctuary in favor of monitoring and an annual stock assessment. Three seasonally opened areas within the sanctuary continued to open seasonally, without need for annual action. A proposed definition of overfishing of white shrimp was rejected by NMFS as not being based on the best available data.

#### Shrimp Amendment 7

Amendment 7, finalized in 1994, defined overfishing for white shrimp and provided for future updating of overfishing indices for brown, white, and pink shrimp as new data become available. A total allowable level of foreign fishing (TALFF) for royal red shrimp was eliminated; however, a redefinition of overfishing for this species was disapproved.

#### Shrimp Amendment 8

Amendment 8, submitted in 1995 and implemented in early 1996, addressed management of royal red shrimp. It established a procedure that allows total allowable catch (TAC) for royal red shrimp to be set up to 30 percent above Maximum Sustainable Yield (MSY) for no more than two consecutive years so that a better estimate of MSY can be determined.

#### Shrimp Amendment 9

Amendment 9 addresses the issue of reducing the bycatch of juvenile red snapper in the shrimp trawl fishery.

#### Shrimp Amendment 10

Amendment 10 requires the installation of NMFS-certified BRDs that reduce the bycatch of finfish by at least 30% by weight in each net used aboard vessels trawling for shrimp in the Gulf of Mexico EEZ east of Cape San Blas, Florida (85° 30" W. Longitude). Excepted are vessels trawling for groundfish or butterfish. A single try net with a headrope length of 16 feet or less per vessel and no more than two rigid-frame roller trawls limited to 16 feet or less, such as those used in the Big Bend area of Florida are also exempted.

#### Shrimp Amendment 11

Amendment 11, implemented December 5, 2002, requires all vessels harvesting shrimp from the EEZ to obtain a commercial shrimp vessel permit from NMFS; prohibits the use of traps to harvest of royal red shrimp from the EEZ; and prohibits the transfer of royal red shrimp at sea. Permits required 12/5/02.

#### Shrimp Amendment 12

Amendment 12, implemented August 19, 2002, established two marine reserves in the EEZ in the vicinity of the Dry Tortugas, Florida known as Tortugas North and Tortugas south, in which fishing for coastal migratory pelagic species is prohibited. This action complements previous actions taken under the National Marine Sanctuaries Act.

#### Shrimp Amendment 13

Amendment 13 establishes an endorsement to the existing federal shrimp vessel permit for vessels harvesting royal red shrimp; (2) Defines maximum sustainable yield (MSY), optimum yield (OY), the overfishing threshold, and the overfished condition for royal red and penaeid shrimp stocks in the Gulf for stocks that currently lack such definitions; (3) Establishes bycatch reporting methodologies and improve collection of shrimping effort data in the exclusive economic zone; (4) Requires completion of a Gulf Shrimp Vessel and Gear Characterization Form; (5) Establishes a moratorium on the issuance of commercial shrimp vessel permits; and (6) Requires reporting and certification of landings during a moratorium.

Action 10 would establish a moratorium on the issuance of new commercial shrimp vessel permits, which would be a form of limited access.

### August 2006 Regulatory Amendment

The purpose of this regulatory amendment is to change the bycatch reduction certification criterion for red snapper from penaeid shrimp trawling in the EEZ. Revising the bycatch reduction device (BRD) certification criterion to address shrimp trawl bycatch more comprehensively and realistically is expected to increase flexibility, promote innovation, and allow for the certification of a wider variety of BRDs. Having a wider variety of BRDs available to the fishery would allow fishermen to choose the most effective BRD for the specific local fishing conditions, and enhance overall finfish reduction.

### Shrimp Amendment 14

Amendment 14, part of Joint Reef Fish Amendment 27/Shrimp Amendment 14 was submitted to the NOAA Fisheries in June, 2007, and establishes a target reduction goal for juvenile red snapper mortality of 74% less than the benchmark years of 2001-2003, reducing that target goal to 67% beginning in 2011, eventually reducing the target to 60% by 2032. If necessary, a seasonal closure in the shrimp fishery will occur in conjunction with the annual Texas closure. The need for a closure will be determined by an annual evaluation by the NMFS Regional Administrator.

The joint amendment also addresses overfishing and bycatch issues in both the red snapper directed fishery and the shrimp fishery. The amendment sets TAC at 5.0 mp between 2008 and 1020. The commercial sector will receive a quota of 2.55 mp, with the remaining quota of 2.45 mp going to the recreational sector. The amendment also reduces the commercial size limit to 13", reduces the recreational bag limit to two fish, eliminates a bag limit for captain and crew aboard a for-hire vessel, and sets the recreational fishing season from June 1 – September 30 (which may be extended by approximately 30 days if the Council's presumed assumption of a 10% post-hurricane reduction in recreational fishing effort is realized). In addition, all commercial and recreational reef fish fisheries will be required to use non-stainless steel circle hooks when using natural baits, as well as venting tools and dehooking devices.

### **Appendix D**

#### **Office of Fisheries Abbreviations:**

CCA - Coastal Conservation Association  
CPRA - Coastal Protection and Restoration Authority  
DHH - Louisiana Department of Health and Hospitals  
FDA - U.S. Food and Drug Administration  
EPA - Environmental Protection Agency  
GSMFC - Gulf States Marine Fisheries Commission  
LARP - Louisiana Artificial Reef Program  
LDWF - Louisiana Department of Wildlife and Fisheries  
LSPMB - Louisiana Seafood Promotion and Marketing Board  
LSU - Louisiana State University  
LWFC - Louisiana Wildlife and Fisheries Commission  
NMFS - National Marine Fisheries Service  
NOAA - National Oceanic and Atmospheric Administration  
SEAMAP - Southeast Monitoring and Assessment Program  
SRD - Socioeconomic Research and Development  
VMS - Vessel Monitoring System