Florida's Wildlife Contingency Plan for Oil Spill Response

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Produced by the Florida Fish and Wildlife Conservation Commission in cooperation with the Florida Department of Environmental Protection - Emergency Response, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, and U.S. Coast Guard

FWC Wildlife Alert Hotline

888-404-FWCC (3922)

FLORIDA WILDLIFE CONTINGENCY PLAN FOR OIL SPILL RESPONSE, June 2012

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ACRONYMS USED

AC	Area Committee (as defined by OPA 90)
ACP	Area Contingency Plan
AOC	Area of Concern
ARD	Assessment and Restoration Division (NOAA-NOS-OR&R)
ART	Applied Response Technology
ATV	All-Terrain Vehicle
BER	Bureau of Emergency Response (FDEP), FDEP – Emergency Response (Office)
BOEM	U.S. Bureau of Offshore Energy Management (DOI)
BSEE	Bureau of Safety and Environmental Enforcement (DOI)
BLM	Bureau of Land Management (DOI)
CERCLA	Comprehensive Environmental Response Compensation & Liability Act
DOI	U.S. Department of the Interior
EOC	Florida Emergency Operations Center, Tallahassee
EFH	Essential Fish Habitat
EPA	U.S. Environmental Protection Agency
ERD	Emergency Response Division (NOAA-NOS-OR&R)
ESA	U.S. Endangered Species Act
ESI	Environmental Sensitivity Index (Sensitivity of Coastal Habitats and Wildlife to Spilled Oil [Atlases and GIS Data])
EUL	Environmental Unit Leader
FDEM	Florida Division of Emergency Management
FDEP	Florida Department of Environmental Protection
FDEP-ER	Florida Department of Environmental Protection – Emergency Response
FOSC	Federal On-Scene Coordinator
FSA	Florida Shorebird Alliance
FSD	Florida Shorebird Database (http://public.myfwc.com/crossdoi/shorebirds/index.html)
FWC	Florida Fish and Wildlife Conservation Commission
FWRI	Fish and Wildlife Research Institute (FWC)
GIS	Geographic Information System

GNOME	General NOAA Ocean Modeling Environment
GPS	Global Positioning System
GRP	Geographic Response Plan (of the ACP)
IAP	Incident Action Plan
ICS	Incident Command System
ICP	Incident Command Post
ISB	In situ burning
IS&M	FWC-FWRI-Information Science and Management Section
ISM	FWC-Imperiled Species Management Section
JIC	Joint Information Center (within ICS)
LE	Law Enforcement (FWC)
MMSN	Marine Mammal Stranding Networks
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NGO	Non Governmental Organization
NIIMS	National Interagency Incident Management System
NMFS	National Marine Fisheries Service (NOAA)
NOAA	National Oceanic and Atmospheric Administration (DOC)
NOS	National Ocean Service (NOAA)
NPS	National Park Service (DOI)
NRF	National Response Framework (as defined by OPA 90)
NRDA	Natural Resources Damage Assessment
NRDC	Natural Resources Defense Council
OPA 90	U.S. Oil Pollution Act of 1990
OR&R	Office of Response and Restoration (NOAA-NOS)
PPE	Personal Protection Equipment
PRP	Potential Responsible Party
PIO	Public Information Officer
RCP	Regional Contingency Plan
RRT	Regional Response Team (as defined by OPA 90)
RP	Responsible Party
SCAT	Shoreline Cleanup Assessment Technique
SOSC	State On-scene Coordinator
SONS	Spill of National Significance

SSC	Scientific Support Coordinator
SSO	Site Safety Officer
STSC	Sea Turtle Stranding Coordinator
STSSN	Sea Turtle Stranding and Salvage Network
UC	Unified Command
USCG	U.S. Coast Guard
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WBD	Wildlife Branch Director

WILDLIFE CONTINGENCY PLAN FOR RESPONSE TO OIL SPILLS IN FLORIDA

1. PREFACE

Wildlife is put at risk or injured when oil is spilled into the marine or terrestrial environment. Both federal and state statutes mandate protection, rescue, and rehabilitation of oiled wildlife.

In response to the Federal Oil Pollution Act of 1990 (OPA 90), the National Oil and Hazardous Substances Pollution Contingency Plan (National Contingency Plan, or NCP) update of 1994 stipulates that Area Contingency Plans (ACPs) contain a Fish and Wildlife and Sensitive Environments Plan "in order to provide for coordinated, immediate and effective protection, rescue, and rehabilitation of, and minimization of risk of injury to, fish and wildlife resources and habitat."

Similarly, State of Florida Statute 376.121, Liability for Damage to Natural Resources, and 376.07 1(e), Creation of State Contingency Plans, require that:

- A state response team be created that shall be responsible for creating and maintaining a contingency plan of response, organization, and equipment for handling emergency cleanup operations and wildlife rescue and rehabilitation operations;
- State plans include detailed emergency operating procedures for the state as a whole, including a plan for wildlife rescue and rehabilitation operations;
- These plans be filed with the governor and all Coast Guard stations in the state and Coast Guard captains of the port having responsibility for enforcement of federal pollution laws in the state;
- The state response team act independently of federal agencies but cooperate with any federal cleanup operation;
- An adequate wildlife rescue and rehabilitation program be developed;
- Injuries to natural resources from a spill be assessed and restoration plans developed to compensate for adversely affected wildlife resources and habitats.

To address these statutory mandates, this Wildlife Contingency Plan for Oil Spills in Florida (Plan) has been developed by a group of federal and state agencies and other interested parties. This Plan is a joint document of the U.S. Coast Guard, Florida Fish and Wildlife Conservation Commission, U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, and the National Oceanic and Atmospheric Administration and is part of the Regional Contingency Plan for Federal Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, and six tribes), although it is also designed to function as a stand-alone document.

This plan is intended to address wildlife concerns that will arise in any oil spill event, large or small. In smaller spills it is understood that coordination is usually among a small group of individuals directly involved with the response, but understanding statutory authorities and which agencies and contacts need to be notified or activated in response to a spill in a given area is required regardless of the size of the spill and so are outlined in this plan. For large spills, which require the creation of a Unified Command/Incident Command Structure (UC/IC), the Wildlife Branch is in the *Operations* Section of the Incident Command Structure for oil spill response. For these circumstances, this plan details the Wildlife Branch's purposes, goals, objectives, responsibilities, and structures. The Wildlife Branch structure required in Florida and detailed in this plan is expanded beyond that described in the NCP (and USCG Incident Management Handbook) at the Group level. As always, the structure may be expanded or reduced to fit the need, but the mission remains unchanged; effective wildlife rescue and rehabilitation operations.

1.1. HISTORY AND FUTURE UPDATES TO THE WILDLIFE CONTINGENCY/RESPONSE PLAN

1.1.1 History

The Plan was drafted and adopted in 1993 as the statewide plan for wildlife response. (Before that, each ACP had its own wildlife response elements similar to those of other ACPs). This 2012 revision clarifies the organizational structure and modifies and details the required duties of the different positions within the Wildlife Branch of the ICS. Details on special protection areas coastally around the state have been collated, as have details on wildlife recovery and rehabilitation centers around the state. Additionally, this 2012 version includes. by USCG Sector, resources at risk anywhere in Florida from a large offshore spill. These resources-at-risk reports detail, down to species level when possible, the fish and wildlife resources that could be affected by a spill's coming ashore anywhere in Florida.

This Contingency Plan was developed jointly by a working group of government agencies and interested parties. The Working Group included personnel from FWC, USCG, USFWS, NOAA, FDEP, NPS, NGOs, and industry. The Plan has been developed to meet the National Contingency Plan's Fish and Wildlife and

Sensitive Environments Plan requirements set forth in 40 CFR Part 300, Section 300.210(c)(4) and to be used throughout Florida.

1.1.2 Updates

This plan will be updated or revised if policy changes occur or if new protocols are developed. In addition, lessons learned from future spills will be taken into account. This document should be considered a living document that is updated periodically. At a minimum, the Plan will be thoroughly reviewed approximately every three years to assess the need for revision and should be reviewed whenever the Region IV RCP is updated.

2. INTRODUCTION

When an oil spill occurs in Florida, the ICS is the organizational structure in place for coordination of responses. The response organization grows to fit the level of response necessary for each incident. Therefore, when a specific ICS position is discussed in the Plan, readers should recognize that, depending on the spill, some positions or duties may not be necessary or may be combined. Readers new to the ICS should keep in mind that a number of people are available who may fill any given ICS position, and normal, day-to-day job titles bear no relationship with ICS position titles. If a suggested ICS position is not filled, the responsibility for the unfilled position's duties falls to the next higher ICS position. Those tasks still get done unless they don't apply to the particular response.

The ICS organizational structure in an oil spill response typically includes the UC and Operations, Planning, Logistics and Finance Sections. In Florida, response actions concerning the protection, identification, rescue, processing, and rehabilitation of oiled wildlife or wildlife at risk are the responsibility of the Wildlife Branch (sometimes referred to as Wildlife Operations), a branch in the Operations Section within the ICS (see Figure 1). This Plan describes the responsibilities and capabilities of the Wildlife Branch within an ICS (under the UC) during an oil spill. The Plan describes procedures to be used, along with personnel and equipment needed, to meet wildlife protection responsibilities of federal and state governments during a spill.

Primary responsibility for oiled wildlife protection, rescue, and rehabilitation will most likely be handled by the FWC because it has legal mandates as the lead state trustee agency for fish and wildlife and their habitats (Article IV, Section 9, Constitution of Florida) as well as specialized expertise with Florida's wildlife. Under Florida Statutes 379.224, Fish and Wildlife Research Institute, the FWC's Fish and Wildlife Research Institute has the mandate and the capacity to direct its wildlife response resources immediately, if necessary, to provide the best achievable protection for the state's wildlife in the event of a marine oil spill, in accordance with the State Contingency Plan (Annex F of the FDEP Emergency Response Plan) and the RCP. Barring any unusual circumstances, an FWC employee usually assumes the role of Wildlife Branch Director. Therefore, when a spill has occurred, it is imperative that the FWC be

notified in a timely manner, because the best time to prevent or minimize adverse effects upon wildlife is the earliest stages of the spill.

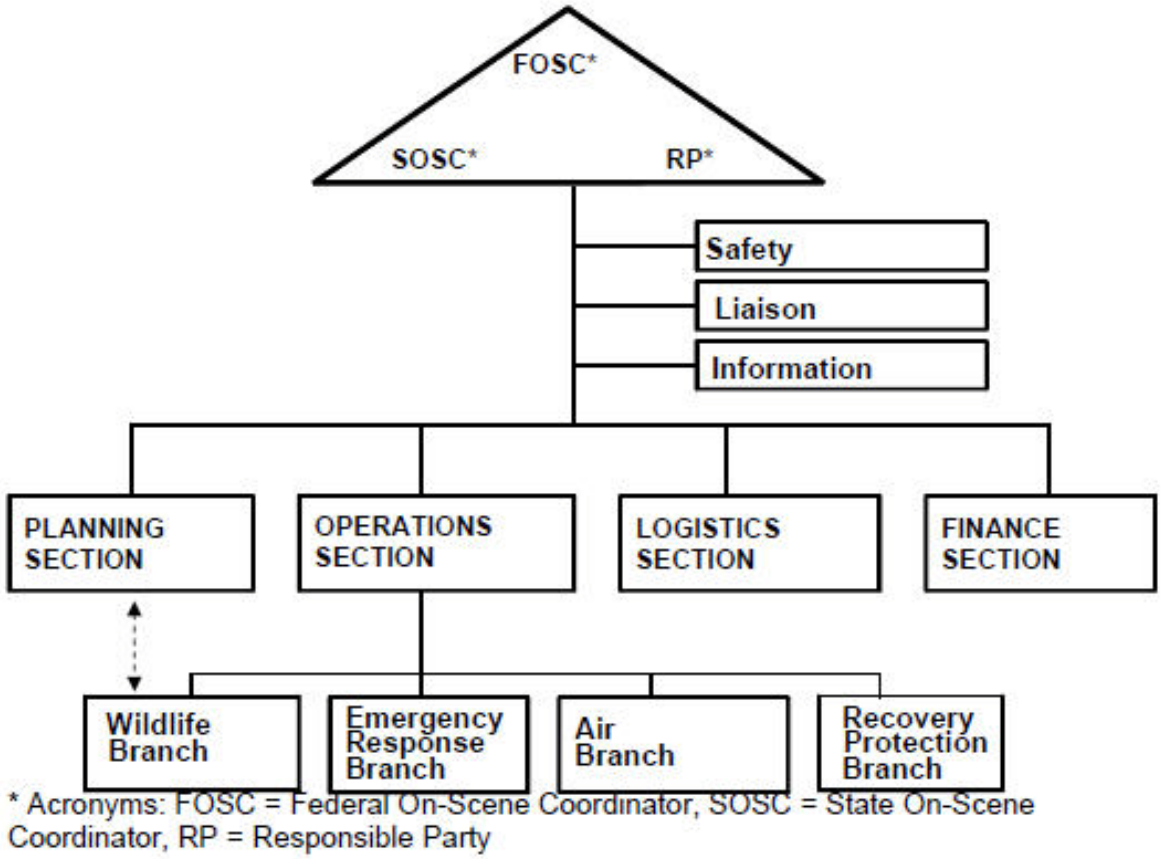

Figure 1. Wildlife Branch Position in the Unified Command/ICS Organization

Figure 1. Wildlife Branch position in the UC/ICS Organization. Typically the UC comprises a representative from the federal government (USCG or EPA), state government (FDEP/FWC/DOACS), and the RP. Local governments may also be represented in the UC. The Wildlife Branch interacts closely with the Environmental and Situation Units within the Planning Section.

Although the Wildlife Branch is integrated into the ICS, it is self-directed in many ways and largely self-contained with regard to wildlife response resources (i.e., staff and equipment). The Wildlife Branch gathers much of its own spill information through wildlife reconnaissance, staffs its own Branch with trained experts (e.g., biologists, veterinarians, rehabilitation staff, processing staff, capture experts, volunteers), and typically prepares its own sections of the Incident Action Plan for the Planning Section.

Although the Wildlife Branch is in many ways self-directed and self-contained, coordination between the Wildlife Branch and other Sections within the ICS is critical. The Wildlife Branch provides the Planning Section and Situation Unit with potential and known wildlife concerns, wildlife reconnaissance data, and wildlife recovery locations. The Planning and Operations Sections use this information to aid in strategic assessment and for planning response strategies. The Planning Section should use this information to

evaluate response countermeasures and strategies (including no action) to reduce or prevent adverse effects to wildlife and wildlife habitat from response actions.

Through the Situation and Environmental Units in the Planning Section, the WBD must also provide the UC with updated wildlife statistics during the response. This information is also frequently relayed to the Joint Information Center for use in press releases. The WBD needs information from the other Sections as well. For example, the Resources-at-Risk Specialist in Planning (Environmental Unit) can provide information about sensitive species and habitats, maps of sensitive areas, and information on locations of sensitive cultural resources for use in planning Wildlife Branch operations.

2.1 Goals and Objectives of the Florida Wildlife Contingency Plan

In Florida, the principal goals and objectives of Wildlife Operations during a spill response are as follows.

2.1.1 Goals

Establish a program for the recovery and rehabilitation of wildlife affected by oil and its derivatives and for protection of wildlife during response activities associated with or resulting from a spill. Wildlife includes invertebrates, fish, birds, reptiles, amphibians, and mammals (terrestrial and marine).

2.1.2 Objectives:

- Ensure safety of all personnel
- Minimize adverse effects to federally and state-listed threatened and endangered species and state-trust resources
- Minimize impacts of the response on wildlife and healthy habitats
- Minimize impacts of oil recovery efforts
- Respond quickly to notifications from the public and other sources
- Capture and recover live oiled wildlife safely and efficiently
- Release rehabilitated animals appropriately
- Collect oiled wildlife carcasses for evidentiary chain
- Conduct wildlife reconnaissance (monitor resources at risk)
- Coordinate with Natural Resource Damage Assessment activities

- **Ensure Safety of All Personnel:** All personnel will read and follow the site safety plan provided at check-in. Crews must immediately return from the field if any member experiences symptoms potentially requiring the attention of a medical professional. Crews should call 911 and follow instructions if any crew member experiences an emergency medical condition. Contractors and agents of the Responsible Party will be responsible for meeting any specific safety requirements of the RP. Agency personnel are responsible for meeting agency safety requirements.

- **Minimize Adverse Effects to Federally and State-Listed Threatened or Endangered Species and State-Trust Resources**: The Best Management Practices, guidelines, and protocols contained in

the appendices of this document are intended to help minimize the effects of response activities on federally listed threatened or endangered species as well as federal and state trust resources. Additional consultation, in accordance with 50 CFR § 402.05, may be necessary if the BMPs cannot be implemented as described.

- **Minimize Impacts of the Response on Wildlife and Healthy Habitats:** Search and recovery of wildlife may be required in habitats that have not been affected by oiling. Personnel shall avoid transporting oil into unoiled areas or otherwise disturbing sensitive habitats in unoiled areas. Search-and-recovery efforts that may impact these habitats include trampling marshes and running boats in shallow, vegetated waters, which may result in scouring or prop-scarring of seagrass beds. Walking or driving over sand dunes can damage habitats. Driving on sand beaches during sea-turtle nesting season can destroy nests. Care for wildlife resources should be taken into account in all response activities.

- **Minimize Impacts of Oil Recovery Efforts:** Guidelines in Appendices *Best Management Practices for Protection of Florida's Coastal Wildlife, Sea Turtle Guidelines and Sea Turtle Nest Protocols for Clean-up Crews in Florida*, and *Guidelines for Avoiding Impacts to Wildlife by Night Work Crews on Florida's Beaches* must be followed to prevent impacts to wildlife during oil recovery.

- **Respond Quickly to Notifications from the Public and Other Sources**: The FWC or USFWS will oversee the RP and any contractors as they establish and implement a network and other mechanisms necessary for responses to reports of wildlife injured in Florida as the result of an oil spill. The network shall consist of response teams, transportation mechanisms, stabilization centers, and rehabilitation facilities comprising contractors or agents of the RP, FWC, or USFWS, including paid or volunteer public or private entities. These contractors or agents must hold all applicable federal and state permits and comply fully with federal and state law. A complete list of permitted individuals is maintained by the USFWS and FWC and updated as necessary. NOAA Fisheries (NMFS) maintains a list of marine mammal permittees. Permittees may supervise other paid individuals and volunteers, provided that such supervision is consistent with the terms of their permits. Rehabilitator permits can be obtained from FWC's Captive Wildlife Permitting Program in the Division of Law Enforcement. The contractors or agents must adhere to all protocols and guidance included in Florida's Wildlife Contingency Plan for Oil Spill Response.

  In areas readily accessible by vehicle, the network shall be designed to provide for on-scene response times of less than 60 minutes, and typically 30 minutes, from the time a report is made on the Wildlife Alert Hotline (888-404-3922) or through other avenues established for reporting oiled wildlife. In remote areas or those requiring access by boat, the network should be designed to respond within 180 minutes or as soon as is practicable. The RP will situate wildlife stabilization centers based on wildlife transportation times for responses other than those requiring access by boat of not more than 60 minutes and situate rehabilitation facilities sufficient to maintain transportation time from stabilization centers to less than 180 minutes (Appendix: Stabilization and Rehabilitation Centers). For marine mammals and sea turtles, stabilization and rehabilitation will occur at existing permitted facilities.

  The RP will maintain environmental conditions (i.e., appropriate temperature, shade, predator protection, etc.) at stabilization centers, rehabilitation centers, and during transport such that no unnecessary stress is placed on the injured wildlife.

The RP will provide a contingency plan that provides for a safe environment for captive wildlife in the event of a tropical storm or hurricane.

The network of contractors or agents as well as the locations of stabilization and rehabilitation centers (Appendix) shall be developed in consultation with the FWC, NMFS, and the USFWS. A current list of authorized contractors and agents shall be maintained by these agencies.

The FWC may issue an Executive Order temporarily suspending permitting requirements for possession of wildlife for certain individuals working under the UC related to rescue, recovery, or salvage.

- **Capture and Recover Live Oiled Wildlife safely and efficiently:** Only trained and designated crews operating under the auspices of the UC will be authorized to capture and recover live oiled wildlife. Capture and recovery must be accomplished in accordance with Appendices *Capture Guidelines for Oiled Birds and Terrestrial Wildlife During Oil Spill Responses*, *Guidelines for Other Oiled Terrestrial and Aquatic Wildlife*, and *Approaching and Taking Birds from Nesting Colonies*. Other field operations teams that encounter oiled wildlife should notify the Wildlife Alert Hotline (888-404-3922) providing location (GPS coordinates) and contact information and remain on scene until contacted by a wildlife responder.

  Dead, sick, or injured sea turtles or manatees or other marine mammals should be reported to the Wildlife Alert Hotline (888-404-3922). Reports will be distributed to the appropriate species coordinator, including FWC's Sea Turtle Stranding Coordinator, NOAA's mammal coordinator, or the FWC's manatee coordinator.

  Each oiled animal recovered must be reported to the WBD within 24 hours of its receipt at a stabilization or rehabilitation center. Injured and debilitated nonmarine animals that turn out not to be oiled may be transferred to a state-permitted rehabilitation facility.

  The JIC should provide a press release identifying the Wildlife Alert Hotline or other telephone number that has been established for oiled wildlife response. The press release should provide reporting instructions to the public and include instructions that people should stay away from oiled or otherwise incapacitated wildlife both before and after they have been reported.

- **Release Rehabilitated Animals Appropriately:** All rehabilitated migratory birds will be released in consultation with FWC and in accordance with the Appendix *USFWS' Guidance for Releasing Rehabilitated Migratory Birds (June 2010)*. Releases of marine mammals, marine turtles, and crocodiles follow guidelines in their respective appendices. Release of other species must be coordinated through FWC staff experts.

- **Collect Wildlife Carcasses for Evidentiary Chain:** All field operations teams including shoreline protection teams and cleanup crews should collect carcasses when encountered. *Carcass* is defined as any part of a bird or other wildlife except individual feathers or fur that do not have skin attached. All field operations teams must possess carcass collection kits. Carcasses, except marine mammals and sea turtles, will be collected according to the Appendix *Carcass Collection Protocol*. Marine mammal carcass sampling and reporting will follow the instructions in the Appendix. All carcasses must be collected, even if oiling is not obvious. Mortality can occur from

the effects of an oil spill without any obvious external oiling. Sea turtle carcasses should be collected if possible following protocols found in the Appendix. If not, immediate communication to the Wildlife Alert Hotline (888-404-3922) should occur. Dead marine mammals should be reported immediately for coordination of sampling and carcass retrieval.

- **Conduct Wildlife Reconnaissance (Monitor Resources at Risk):** For sections of the coastline that receive little public visitation, it may be necessary to deploy reconnaissance teams to search for and rescue oiled wildlife and collect carcasses. At the recommendation of the Resource Manager and approval of the UC, or at the direction of the UC, the RP will provide land-based, airborne, or waterborne reconnaissance teams, as described in the Appendix. If reconnaissance personnel are not qualified or unable to rescue wildlife or retrieve carcasses, they must immediately report carcasses to the Wildlife Alert Hotline (888-404-3922).

  Note that federal and state trustees may conduct additional reconnaissance efforts and assist in wildlife rescue at their discretion, provided they satisfy safety requirements of the RP.

  Group leaders will be assigned for ground operations, boat operations, and air operations. Team members will attend a daily team briefing to receive search area assignments, safety messages, and any pertinent information for that day. Group leaders are responsible for briefing their teams before the work period to assign the period's activity, advising their teams of pertinent protocols in this Plan, directing communications with their teams, debriefing their team at the end of each work period, and reporting for their teams daily to the Wildlife Supervisor.

  Ground Search teams (2-person minimum) will be assigned to a specific area. Teams must follow the Appendix *Best Management Practices for Protection of Florida's Coastal Wildlife* (BMPs) and any other site-specific special conditions for refuges, parks, wildlife management areas, preserves, military installations, etc. (Appendix: *Special Conditions for Access to Public and Private Lands*).

  Search Teams must ensure comprehensive coverage of their areas to the extent practicable. For example, beaches should be searched from the water line up to and including the highest wrack line. Care will be taken, however, to minimize disturbance to nontargeted, sensitive wildlife and to avoid entering areas where such wildlife occur (e.g., where nesting populations of shorebirds or seabirds, such as least terns, snowy plovers, or black skimmers, occur). Any oiled wildlife or carcasses encountered will be collected by the guidelines included in the Appendices. Teams should note any concentrations of wildlife near or likely to be affected by the spill. This information should be provided to the Group Leader to be reported to the UC for use in planning.

- **Coordinate with Natural Resource Damage Assessment Activities:** Wildlife operations must be coordinated with NRDA teams to avoid duplication of search effort. The UC will ensure that data are shared between wildlife response and NRDA coordinators. The NRDA representatives are responsible for coordinating the NRDA needs and activities of the trustee team. NRDA activities generally do not occur within the structure, processes, and control of the ICS. Particularly in the early phases of a spill response, however, many NRDA activities overlap with environmental assessment performed for the sake of spill response. Because NRDA is carried out by natural resource trustee agencies or their contractors, personnel limitations may require that staff perform NRDA and response activities simultaneously. Therefore, NRDA representatives should

remain coordinated with the spill response organization through the Liaison Officer and may need to work directly with the UC, Environmental Unit, Wildlife Branch or the NOAA or State Scientific Support Coordinator to resolve any problems or address areas of overlap. It should be addressed as early as possible whether NRDA resource requirements and costs fall outside the responsibility of the Logistics and Finance/Administration Sections.

The On-Scene Coordinators will consult with the NMFS Habitat Conservation Division when there is a possibility of an adverse impact on Essential Fish Habitat. Appropriate response measures will be determined by the UC, including federal and state stakeholders.

Sea turtle, marine mammal, and crocodilian recovery and rehabilitation are addressed under separate protocols. The Wildlife Branch of the UC will organize trained wildlife care providers and investigators to assist marine mammals, sea turtles, and crocodilians affected by a spill. The marine mammal, sea turtle, and crocodilian response teams include authorized personnel from the Marine Mammal Health and Stranding Response Program and the Sea Turtle Stranding and Salvage Network who respond to stranded marine animals and the Crocodile Response/Recovery Team. Each of these teams will comprise wildlife and veterinary professionals and experts from federal and state agencies, academia, and zoos or aquariums. The overall response will build upon the local stranding programs but will call upon the national network to assist as needed. Additional information on reporting and recovery of sea turtles, marine mammals, and crocodilians can be found in the following Appendices:

Best Management Practices for Protection of Florida's Coastal Wildlife
Oiled Wildlife Recovery Operations Protocol
Sea Turtle Guidelines for Oil Spill Response
Manatee Guidelines for Oil Spill Response
Capture Guidelines for Oiled Birds and Terrestrial Wildlife During Oil Spill Responses
Guidance for Releasing Rehabilitated Migratory Birds
Guidelines for Other Terrestrial and Aquatic Wildlife During Oil Spill Response
Marine Mammal-Sea Turtle Protocols for Dedicated SCAT
Guidance For Avoiding Impacts To Wildlife By Night Work Crews On Florida's Beaches
Carcass Collection Protocols for Oil Spill Response

2.2 Plan Applicability to Other Non–Oil Spill Events

While this Plan has been designed principally to cover oil spills in marine waters as required by federal and state law, it is also applicable to inland oil events and to marine or inland non–oil spill events. The organizational structure, roles, and responsibilities remain the same, although some functions may be altered as appropriate, and binding federal and state law governing the activation and mandate of wildlife response elements may differ.

3.0 STATUTORY BASIS FOR WILDLIFE BRANCH OPERATIONS

3.1 FEDERAL AND STATE LAW MANDATES

The Federal Oil Pollution Act of 1990 (OPA-90) requires that a Fish and Wildlife and Sensitive Environment Plan be developed for the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), in consultation with the USFWS, NOAA, and other interested parties, including state fish and wildlife agencies (33 U.S.C. § 1321(d)(2)(M)). The NCP (the National Oil and Hazardous Substances Pollution Contingency Plan, updated in 1994), calls for Fish and Wildlife and Sensitive Environments Plans to be included in ACPs "in order to provide for coordinated, immediate and effective protection, rescue, rehabilitation of, and minimization of risk of injury to fish and wildlife resources and habitat." In 40 CFR Part 300, Section 300.210(c)(4), the requirements for this plan are set forth as an annex to RCPs or ACPs. The Plan has been written in conjunction with other sections of the RCP to address these federal requirements.

In many respects, the fish and wildlife provisions of State of Florida Statutes 376.121, Liability for Damage to Natural Resources and Florida Statutes 376.07 1(e), Creation of State Contingency Plans parallel the OPA 90 provisions for fish and wildlife protection during spill responses. Under 376.121 and 376.07 1(e), the state has several duties regarding living natural resources.

- Creation of a state response team that shall be responsible for creating and maintaining a contingency plan of response, organization, and equipment for handling emergency cleanup operations and wildlife rescue and rehabilitation operations;
- The state plans shall include detailed emergency operating procedures for the state as a whole, including a plan for wildlife rescue and rehabilitation operations;
- These plans shall be filed with the governor and all Coast Guard stations in the state and Coast Guard Captains of the Port having responsibility for enforcement of federal pollution laws within the state;
- The state response team shall act independently of agencies of the federal government but is directed to cooperate with any federal cleanup operations;
- Development of an adequate wildlife rescue and rehabilitation program;
- Assessment of injuries to natural resources from a spill and development of restoration plans to compensate for adversely affected wildlife resources and habitats.

This Wildlife Contingency Plan does not specifically address Natural Resource Damage Assessment.

3.2 NATURAL RESOURCE TRUSTEES FOR WILDLIFE

Pursuant to Florida Statute 376.121, FWC is the lead state trustee agency for fish, wildlife, and their habitats. Other state trustee agencies that may participate in Wildlife Branch decisions and response activities are:

Florida Department of Environmental Protection:
- Emergency Response
- State Parks
- Beaches and Coastal Systems
- Coastal and Aquatic Managed Areas

Florida Water Management Districts:
- Northwest Florida Water Management District
- Suwannee River Water Management District
- St. Johns River Water Management District
- South Florida Water Management District
- Southwest Florida Water Management District

Florida Department of Agriculture and Consumer Services
Florida Division of Emergency Management

Pursuant to OPA-90 and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Governor has delegated State trustee authority to the Director of the Florida Department of Environmental Protection and the Secretary of the Resources Agency for resources within their purview.

Federal trustee agencies that are most likely to participate in Wildlife Branch decisions and response activities are as follows:

Department of the Interior
- National Park Service
- U.S. Fish and Wildlife Service
- US Geological Survey
  - Sirenia Program (Manatees)
- Bureau of Land Management
- Bureau of Indian Affairs
- Bureau of Ocean Energy Management
- Bureau of Safety and Environmental Enforcement

Department of Commerce
- National Oceanic and Atmospheric Administration
- National Ocean Service
- Office of National Marine Sanctuaries
- Office of Response and Restoration
- National Marine Fisheries Service

Department of Defense (for DOD properties)

The USCG and the EPA are not trustee agencies for natural resources but are the lead federal agencies during spill response (in marine and inland waters, respectively), thus they participate fully in Wildlife Branch decisions as parts of the UC.

In any spill, the responsible party or discharger is responsible to federal and state resource trustees, to federally recognized American Indian tribes, and to foreign trustees, all of whom are empowered to enforce remediation and seek compensation for injuries to natural resources which have been caused by a discharge (40 CFR Part 300, Subpart G, and Florida Statutes chapters 369–380. Indian tribes retain sovereign authority to manage wildlife resource issues within reservation boundaries. Consultation and coordination (typically through the UC Liaison) is necessary with tribal governments whose lands may be impacted by an oil spill. Regardless of whether an oil spill occurs directly on tribal lands or moves onto or through tribal lands, coordination is required to develop appropriate wildlife response strategies to address tribal concerns. Trustee agencies influence the response methods used so Wildlife Branch operations must comply with each trustee's governing laws and its obligations to preserve and protect wildlife and habitat. During a spill response, the wildlife trustee agencies will advise the WBD about local wildlife resources, especially sensitive species or habitats, logistical considerations, and other issues that arise. Within waters of the state (within 3 nautical miles of shore on the East Coast and 9 nautical miles on the Gulf Coast), FWC will respond and typically *lead* Wildlife Branch operations. In addition, FWC may respond to spills outside state waters if the spill threatens state waters, if the spill threatens wildlife under the trusteeship of the state, if the potential responsible party is a state-regulated entity, or if FWC is requested to assist by the USCG, USFWS, or NMFS. Wildlife Branch operations could occur outside waters of the state with no involvement from DEP.

3.3 INTERAGENCY AGREEMENTS REGARDING JOINT RESPONSE ACTIVITIES

In an effort to provide a more efficient and coordinated response, principal federal and state fish and wildlife trustees have signed cooperative agreements clarifying roles in responses to spills of oil and other toxic substances. Most of these agreements can be found online, and, if so, links are provided. Others can be found on the Regional Response Team Region IV website (www.rrt4.org). If no link is provided, the MOA can be found on file at FWC-FWRI. The following is a synopsis of these agreements.

Memorandum of Agreement between the USCG and the State of Florida, Dated July 5, 1995

This MOA coordinates the relationship between the State of Florida and the USCG to provide the foundation for cooperation in the full range of marine pollution–related activities. The objective of this cooperative agreement is to ensure a sound state, regional, national, and international marine environmental protection strategy by:

(1) minimizing duplication of requirements

(2) making the most efficient use of state and Coast Guard resources, and

(3) eliminating barriers to marine transportation due to differing federal and state regimes.

http://ocean.floridamarine.org/ACP/STPACP/Documents/PDF/MOU_MOA_2006/MOA%20USCG%20%26%20FL%201995%2007%2005.pdf

Memorandum of Agreement between Florida DEP and the FWC-FWRI, dated January 26, 2000

This MOA provides the foundation for interagency cooperation and partnership in the following agency missions:

(1) Environmental monitoring and assessment;

(2) Restoration research and development of restoration technology; and

(3) Technical support and response for oil spills, ship groundings, major marine species die-offs, hazardous spills, and natural disasters.

This MOA also designates the FWC-FWRI as the primary contact for fish and wildlife issues in the event of large oil or toxic substance spills within the state of Florida. This document directs the FWRI to designate a primary contact person for support of the UC regarding fish and wildlife issues in Florida during oil spill response. This is the position of the State Scientific Support Coordinator. The stated duties of this person regarding fish and wildlife resources are to:

- Advise on and coordinate activities related to fish and wildlife problems and issues related to the spill;
- Advise and direct efforts to minimize injury to wildlife; coordinate efforts to recover and care for oiled wildlife;
- Immediately contact USFWS and maintain communication with USFWS (see Florida Wildlife Operations Contacts Appendix for contact information); and
- Adhere to conditions of federal and State wildlife permits.

These duties correlate directly with the responsibilities of the WBD. In smaller spill events, the State Scientific Support Coordinator (SAC) can act as the WBD, but in larger spills, the WBD position may be taken over by another qualified individual (state or federal employee with intimate knowledge of Florida's fish and wildlife resources and all applicable laws and regulations). It is acknowledged that the USFWS and the FWC share trustee responsibilities for endangered species, migratory birds, and migratory fishes, but no MOA sets forth oil spill response responsibilities between FWC and the USFWS. It is hoped that one can be developed in conjunction with this wildlife contingency plan for oil spills.

Memorandum of Agreement between the EPA and the State of Florida

This MOA coordinates efforts between the EPA Region IV and the FDEP, in response to oil discharges pursuant to the provisions of OPA 90. The objective of this MOA is to define coordination procedures and guidelines the FDEP is to use in submittal of claims for reimbursement of uncompensated removal costs to the National Pollution Funds Center).

http://ocean.floridamarine.org/ACP/MOBACP/PDF/MOU_MOA_2006/MOA%20EPA-FL%201998%2001%2021.pdf

MEMORANDA OF AGREEMENT BETWEEN THE BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT,- U.S. DEPARTMENT OF THE INTERIOR, AND THE USCG, U.S. DEPARTMENT OF HOMELAND SECURITY, - Effective Date, April 3, 2012

The purpose of this MOA is to clarify the roles and responsibilities of the BSEE and the USCG for oil discharge research, planning, preparedness, response, and abatement activities for any artificial island, installation, pipeline, or other device permanently or temporarily attached to the seabed seaward of the coastline (hereafter, *facilities* or), and certain vessels that may be used for the purpose of responding to discharges or substantial threats of discharges. The facilities and vessels subject to this MOA may include, but are not limited to, mobile offshore drilling units, support vessels for subsea containment, and floating production, storage, and offloading (or similar) vessels, located in state and federal waters seaward of the coastline.
http://www.uscg.mil/hq/cg5/cg522/cg5222/docs/mou/MOA%20OCS%2003_FINAL_Signed_3APR12.pdf

3.4 COMPLIANCE WITH FEDERAL AND STATE WILDLIFE REGULATIONS

Three federal laws regarding the protection of wildlife are especially relevant to spill response: the Migratory Bird Treaty Act, the Marine Mammal Protection Act, and the Endangered Species Act. In addition, the Bald Eagle Protection Act protects Bald Eagles and Golden Eagles.

The WBD will ensure that activities of the Wildlife Branch are in compliance with federal laws, including implementation of all measures outlined in MOUs, MOAs and other agreements. In addition, the WBD will assist the Environmental Unit of the Planning Section to help ensure that laws and agreements pertaining to wildlife are complied with during other aspects of spill response.

3.4.1 Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) prohibits anyone without a permit from pursuing, hunting, killing, possessing, or transporting (or attempting to do any of these things) most native birds in the United States. The MBTA applies to live and dead birds and to active nests (nests with eggs or chicks). The trustee agency overseeing the MBTA is the USFWS.

Responders conducting collection work involving migratory birds should hold or be working under a Migratory Bird Rehabilitation Permit that allows personnel (including volunteers) working under the UC to collect birds during oil spills. This includes dead birds and live oiled birds as well as live unoiled birds that may be captured "for the purpose of removing them from imminent danger." No federal permit is required for nonlethal deterrence (hazing) of migratory birds. Any bird captured or collected must be reported to the USFWS, and for any bird listed under the federal Endangered Species Act must, the report must be filed within 24 hours. Disturbances related to spill response that would result in loss or abandonment of nests is not covered under the Migratory Bird Rehabilitation Permit; such disturbances should be avoided.

3.4.2 Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) prohibits the take of marine mammals (including manatees, dolphins, and whales); *to take* is defined under the MMPA as "to harass, hunt, capture, kill or collect, or attempt to harass, hunt, capture, kill or collect." Under Section 109(h) of the MMPA, federal, state, and local government officials, or designees of the relevant Secretaries of the Departments of the Interior and Commerce, may take marine mammals during the course of official response duties if such taking is for the protection or welfare of the mammal, the protection of public health and welfare, or the nonlethal removal of nuisance animals. Other exemptions to the take prohibition that are relevant to oil spill response include activities conducted under a permit or agreement issued by NMFS.

Marine Mammal Responses in Florida

The FWC and the USFWS have a Cooperative Agreement under Section 6 authority of the Endangered Species Act. The Agreement specifies cooperative activities for the benefit of endangered and threatened fish and wildlife in Florida. As part of that cooperative agreement, the FWC may aid manatees in need of rescue and salvage dead animals for necropsy. The FWC acts as the statewide manatee rescue coordinator and is responsible for the salvage and necropsy of manatees found in Florida. The FWC has marine mammal staff and offices located in five field stations around the state to respond to calls for rescue and to salvage carcasses in a timely manner.

FWC staff members also participate in the NOAA Marine Mammal Stranding Network and respond to cetacean strandings in coordination with NOAA and other stranding network partners. NOAA is the coordinator for cetacean strandings, and the public is directed to contact NOAA strandings hotline contacts to report a stranding. NOAA also provides the public with the FWC Wildlife Alert number (888-404-FWCC) because NOAA recognizes the FWC as a key partner.
http://www.nmfs.noaa.gov/pr/health/networks.htm#southeast

The MMPA does not allow for disturbance or take of marine mammals or sea turtles incidental to aspects of spill response other than wildlife recovery. Specific permits are issued by the NMFS and USFWS to the Marine Mammal Health and Stranding Response Program allowing members of the MMSN to incidentally take marine mammals during emergency response; this permit specifically allows "close approach" to marine mammals, and "hazing away from harmful situations." Other incidental disturbance during spill response may be covered under the MMPA, allowing take by government agency employees or designees, or would be addressed through a consultation with NMFS during the spill response.

3.4.3 United States Endangered Species Act

The United States Endangered Species Act prohibits take of species listed as Threatened or Endangered under the Act. *To take* under the ESA is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The USFWS oversees permitting authorization issues for the allowed take of listed terrestrial species, nonmarine fish, birds, and manatees; NMFS oversees permitting authorization of the allowable take of other marine mammals, sea turtles (in water), and marine and anadromous fishes.

In 2001, the USFWS and other federal agencies signed an MOU regarding oil spill planning and response activities related to the ESA. This MOU recognized that oil spill response is a federal action and thus is subject to Section 7 of the ESA, which involves interagency consultations regarding Threatened and Endangered Species. The MOU includes guidelines for prespill planning (including protocols for listed species, as included in this Plan) and guidelines for emergency Section 7 consultations during and after spill response.

In Florida, the FWC's Migratory Bird Rehabilitation Permit authorizes recovery, temporary possession, transport, and rehabilitation of oiled Threatened and Endangered bird species. In addition, the FWC has a cooperative agreement with the USFWS pursuant to Section 6(c) of the ESA. This agreement allows any employee or agent of the FWC to take listed species if such action is necessary to aid a sick, injured, or orphaned animal. Additionally, in regulations issued under the ESA Section 4(d) for Threatened

species including Gulf Sturgeon and several species of anadromous fish, take in an emergency situation may be allowed (see 65 FR 42422 and 75 FR 30714). To aid in minimizing impacts to Threatened and Endangered bird species that could be encountered during spill response, special protocols have been established (see Appendices).

Manatees, managed by the USFWS, are covered under this agreement and are addressed separately in an Appendix (Manatee Guidelines for Oil Spill Response). The agreement between FWC and NMFS for other marine mammals and sea turtles does not include explicit coverage for species listed under the ESA. For issues related to take of listed sirenians, cetaceans, or sea turtles, the WBD should work with the Florida Marine Mammal Stranding Coordinator or other NMFS personnel to facilitate an ESA Section 7 Emergency Consultation.

The ESA does not specifically authorize deterrence and pre-emptive capture of endangered species during oil spill response (although members of the Florida Marine Mammal Stranding Network may haze marine mammals, including species listed under the ESA). The Wildlife Branch, in consultation with the appropriate trustee agencies, will develop response strategies, if appropriate, for deterrence and pre-emptive capture of listed species for a specific spill incident. Take of listed species resulting from approved response actions will be deemed incidental to the primary action of the spill response and will be covered by ESA Section 7 Emergency Consultation process, unless otherwise authorized by a permit.

3.4.4 State of Florida Wildlife Regulations

The Florida Endangered and Threatened Species Act (FS 379.2291) prohibits the take of species listed as Endangered or Threatened by the State or of species that are candidates for listing. *To take* is defined by the State as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." However, the Commission may issue permits for take and does not intend to prohibit actions taken on an emergency basis necessary to address public safety (Ch. 68A-27, Florida Administrative Code [FAC]).

Native wildlife in Florida are also protected under a variety of other regulations (e.g., Ch. 68A, FAC). Wildlife rehabilitators in Florida are required to hold Wildlife Rehabilitation Permits issued by the FWC that allow them to collect and temporarily hold injured (as by oil) wildlife. Nonnative restricted species cannot be released or transferred without written permission from the FWC.

For the safety of the public (as well as of wildlife), Florida statute prohibits members of the public from picking up disabled wildlife in a designated oil-spill or toxic spill area. Specifically, "no person may enter a designated oil/toxic spill area for the purpose of picking up disabled wildlife or transport or possess

wildlife disabled by an oil spill or other spilled toxic substance unless that person has authorization from the FWC."

Florida Statutes 376.07(e) – Mandates creation by contract or administrative action of a state response team which shall be responsible for creating and maintaining a contingency plan of response, organization, and equipment for handling emergency cleanup operations and wildlife rescue and rehabilitation operations. The state plan shall include detailed emergency operating procedures for the state as a whole, and the team shall from time to time conduct practice alerts. These plans shall be filed with the Governor and all USCG stations in the state and USCG Captains of the Port having responsibility for enforcement of federal pollution laws within the state. The contingency plan shall include all necessary information for the total containment and cleanup of pollution, including, but not limited to, an inventory of equipment and its location, a table of organization with the name, address, and telephone number of all persons responsible for implementing any phase of the plan, including a plan for wildlife rescue and rehabilitation operations, a list of available sources of supplies necessary for cleanup, and a designation of priority zones to determine the sequence and methods of cleanup. The state response team shall act independently of federal agencies but is directed to cooperate with any federal cleanup operation.

Florida Statutes 376.071 – Mandates discharge contingency plans for vessels and states that spill contingency plans for marine facilities and tank vessels must either: 1) utilize the state-identified resources to meet oiled wildlife care requirements, or 2) describe procedures that clearly outline how oiled wildlife care will be provided, including equipment, personnel, and facilities.

3.5 STATE OF FLORIDA THREATENED AND ENDANGERED SPECIES LIST

3.5.1 The State of Florida Threatened and Endangered Species List is maintained by the FWC. This list was updated in October 2011 and is available online as a PDF at: http://myfwc.com/media/1515251/Threatened_Endangered_Species.pdf

VERTEBRATES

FISH

Common Name	Scientific Name	Status
Atlantic sturgeon	*Acipenser oxyrinchus*	SSC
Blackmouth shiner	*Notropis melanostomus*	ST
Bluenose shiner	*Pteronotropis welaka*	SSC
Crystal darter	*Crystallaria asprella*	ST
Gulf sturgeon	*Acipenser oxyrinchus [=oxyrhynchus] desotoi*	FT
Harlequin darter	*Etheostoma histrio*	SSC
Key silverside	*Menidia conchorum*	ST
Lake Eustis pupfish	*Cyprinodon hubbsi*	SSC
Okaloosa darter	*Etheostoma okalossae*	FE
Rivulus	*Rivulus marmoratus*	SSC
Saltmarsh topminnow	*Fundulus jenkinsi*	SSC
Shortnose sturgeon	*Acipenser brevirostrum*	FE
Smalltooth sawfish	*Pristis pectinate*	FE
Southern tessellated darter	*Etheostoma olmstedi maculaticeps*	SSC

AMPHIBIANS

Common Name	Scientific Name	Status
Florida bog frog	*Lithobates okaloosae*	SSC
Frosted flatwoods salamander	*Ambystoma cingulatum*	FT
Georgia blind salamander	*Haideotriton wallacei*	SSC
Gopher frog	*Lithobates capito*	SSC
Pine barrens treefrog	*Hyla andersonii*	SSC

Common Name	Scientific Name	Status
Reticulated flatwoods salamander	*Ambystoma bishopi*	FE

REPTILES

Common Name	Scientific Name	Status
Alligator snapping turtle	*Macrochelys temminckii*	SSC
American alligator	*Alligator mississippiensis*	FT(S/A)
American crocodile	*Crocodylus acutus*	FT
Atlantic salt marsh snake	*Nerodia clarkii taeniata*	FT
Barbour's map turtle	*Graptemys barbouri*	SSC
Bluetail mole skink	*Eumeces egregius lividus*	FT
Eastern indigo snake	*Drymarchon corais couperi*	FT
Florida brownsnake[1]	*Storeria victa*	ST
Florida Keys mole skink	*Eumeces egregius egregius*	SSC
Florida pine snake	*Pituophis melanoleucus mugitus*	SSC
Gopher tortoise	*Gopherus polyphemus*	ST
Green sea turtle	*Chelonia mydas*	FE
Hawksbill sea turtle	*Eretmochelys imbricata*	FE
Kemp's ridley sea turtle	*Lepidochelys kempii*	FE
Key ringneck snake	*Diadophis punctatus acricus*	ST
Leatherback sea turtle	*Dermochelys coriacea*	FE
Loggerhead sea turtle	*Caretta caretta*	FT
Peninsula ribbon snake[1]	*Thamnophis sauritus sackenii*	ST
Red rat snake[1]	*Elaphe guttata*	SSC
Rim rock crowned snake	*Tantilla oolitica*	ST

Common Name	Scientific Name	Status
Sand skink	*Neoseps reynoldsi*	FT
Short-tailed snake	*Stilosoma extenuatum*	ST
Striped mud turtle[1]	*Kinosternon baurii*	ST
Suwannee cooter	*Pseudemys suwanniensis*	SSC

BIRDS

Common Name	Scientific Name	Status
American oystercatcher	*Haematopus palliatus*	SSC
Audubon's crested caracara	*Polyborus plancus audubonii*	FT
Bachman's wood warbler	*Vermivora bachmanii*	FE
Black skimmer	*Rynchops niger*	SSC
Brown pelican	*Pelecanus occidentalis*	SSC
Burrowing owl	*Athene cunicularia*	SSC
Cape Sable seaside sparrow	*Ammodramus maritimus mirabilis*	FE
Eskimo curlew	*Numenius borealis*	FE
Everglade snail kite	*Rostrhamus sociabilis plumbeus*	FE
Florida grasshopper sparrow	*Ammodramus savannarum floridanus*	FE
Florida sandhill crane	*Grus canadensis pratensis*	ST
Florida scrub-jay	*Aphelocoma coerulescens*	FT
Ivory-billed woodpecker	*Campephilus principalis*	FE
Kirtland's wood warbler (Kirtland's warbler)	*Dendroica kirtlandii* (*Setophaga kirtlandii*)	FE
Least tern	*Sterna antillarum*	ST
Limpkin	*Aramus guarauna*	SSC

Common Name	Scientific Name	Status
Little blue heron	*Egretta caerulea*	SSC
Marian's marsh wren	*Cistothorus palustris marianae*	SSC
Osprey[2]	*Pandion haliaetus*	SSC
Piping plover	*Charadrius melodus*	FT
Red-cockaded woodpecker	*Picoides borealis*	FE
Reddish egret	*Egretta rufescens*	SSC
Roseate spoonbill	*Platalea ajaja*	SSC
Roseate tern	*Sterna dougallii dougallii*	FT
Scott's seaside sparrow	*Ammodramus maritimus peninsulae*	SSC
Snowy egret	*Egretta thula*	SSC
Snowy plover	*Charadrius nivosus* (*Charadrius alexandrinus*)	ST
Southeastern American kestrel	*Falco sparverius paulus*	ST
Tricolored heron	*Egretta tricolor*	SSC
Wakulla seaside sparrow	*Ammodramus maritimus juncicola*	SSC
White-crowned pigeon	*Patagioenas leucocephala*	ST
Whooping crane	*Grus americana*	FXN
White ibis	*Eudocimus albus*	SSC
Worthington's marsh wren	*Cistothorus palustris griseus*	SSC
Wood stork	*Mycteria americana*	FE

MAMMALS

Common Name	Scientific Name	Status
Anastasia Island beach mouse	*Peromyscus polionotus phasma*	FE
Big Cypress fox squirrel	*Sciurus niger avicennia*	ST

Common Name	**Scientific Name**	**Status**
Caribbean monk seal	*Monachus tropicalis*	FE
Choctawhatchee beach mouse	*Peromyscus polionotus allophrys*	FE
Eastern chipmunk	*Tamias striatus*	SSC
Everglades mink	*Neovison vison evergladensis*	ST
Finback whale	*Balaenoptera physalus*	FE
Florida black bear[3]	*Ursus americanus floridanus*	ST
Florida bonneted (mastiff) bat	*Eumops [=glaucinus] floridanus*	ST
Florida mouse	*Podomys floridanus*	SSC
Florida panther	*Puma [=Felis] concolor coryi*	FE
Florida salt marsh vole	*Microtus pennsylvanicus dukecampbelli*	FE
Gray bat	*Myotis grisescens*	FE
Gray wolf	*Canis lupus*	FE
Homosassa shrew	*Sorex longirostris eonis*	SSC
Humpback whale	*Megaptera novaeangliae*	FE
Indiana bat	*Myotis sodalis*	FE
Key deer	*Odocoileus virginianus clavium*	FE
Key Largo cotton mouse	*Peromyscus gossypinus allapaticola*	FE
Key Largo woodrat	*Neotoma floridana smalli*	FE
Lower Keys rabbit	*Sylvilagus palustris hefneri*	FE
North Atlantic right whale	*Eubalaena glacialis*	FE
Perdido Key beach mouse	*Peromyscus polionotus trissyllepsis*	FE
Red wolf	*Canis rufus*	FE
Rice rat	*Oryzomys palustris natator*	FE[1]
Sanibel Island rice rat	*Oryzomys palustris sanibeli*	SSC

Common Name	Scientific Name	Status
Sei whale	*Balaenoptera borealis*	FE
Sherman's fox squirrel	*Sciurus niger shermani*	SSC
Sherman's short-tailed shrew	*Blarina [=carolinensis] shermani*	SSC
Southeastern beach mouse	*Peromyscus polionotus niveiventris*	FT
Sperm whale	*Physeter catodon [=macrocephalus]*	FE
St. Andrew beach mouse	*Peromyscus polionotus peninsularis*	FE
West Indian manatee (Florida manatee)	*Trichechus manatus* (*Trichechus manatus latirostris*)	FE

INVERTEBRATES

CORALS

Common Name	Scientific Name	Status
Elkhorn coral	*Acropora palmate*	FT
Pillar coral	*Dendrogyra cylindricus*	ST
Staghorn coral	*Acropora cervicornis*	FT

CRUSTACEANS

Common Name	Scientific Name	Status
Black Creek crayfish (Spotted royal crayfish)	*Procambarus pictus*	SSC
Panama City crayfish	*Procambarus econfinae*	SSC
Santa Fe Cave crayfish	*Procambarus erythrops*	SSC
Squirrel Chimney Cave shrimp	*Palaemonetes cummingi*	FT

INSECTS

Common Name	Scientific Name	Status
American burying beetle	*Nicrophorus americanus*	FE
Miami blue butterfly	*Cyclargus thomasi bethunebakeri*	ST
Schaus' swallowtail butterfly	*Heraclides aristodemus ponceanus*	FE

MOLLUSKS

Common Name	Scientific Name	Status
Chipola slabshell (mussel)	*Elliptio chiplolaensis*	FT
Fat threeridge (mussel)	*Amblema neislerii*	FE
Florida treesnail	*Liguus fasciatus*	SSC
Gulf moccasinshell (mussel)	*Medionidus penicillatus*	FE
Ochlockonee moccasinshell (mussel)	*Medionidus simpsonianus*	FE
Oval pigtoe (mussel)	*Pleurobema pyriforme*	FE
Purple bankclimber (mussel)	*Elliptoideus sloatianus*	FT
Shinyrayed pocketbook (mussel)	*Lampsilis subangulata*	FE
Stock Island tree snail	*Orthalicus reses [not incl. nesodryas]*	FT

3.4.6.1 KEY TO ABBREVIATIONS AND NOTATIONS (FLORIDA ENDANGERED SPECIES LIST)

List of Abbreviations:

FWC = Florida Fish and Wildlife Conservation Commission

FE = Federally designated Endangered

FT = Federally designated Threatened

FXN = Federally designated Threatened Nonessential Experimental Population

FT(S/A) = Federally designated Threatened species due to similarity of appearance

ST = State-designated Threatened

SSC = State Species of Special Concern

List Notations:

[1] Lower Keys population only.

[2] Monroe County population only.

[3] Other than those found in Baker and Columbia Counties or in Apalachicola National Forest.

3.6 OTHER PLANS

This plan for Florida is a portion of the RCP for Federal Region IV. The RCP also contains a Fish and Wildlife and Sensitive Environments Plan (as required by the NCP); the Plan complements and expands upon the Fish and Wildlife and Sensitive Environments Plan. Each ACP in Florida refers to the RCP with respect to its required Fish and Wildlife and Sensitive Environments Plans.

FWC should be listed is a primary source for Technical Expertise regarding Sensitive Environmental Information, because FWC is the holder of the Geographic Response Plan data for Oil Spills (Digital ACPs developed under funding from the USCG) as well as the data and maps for the Sensitivity of Coastal Habitats and Wildlife to Spilled Oil Atlases (also known as Environmental Sensitivity Index Atlases), the Florida Marine Spill Analysis System (FMSAS), the Marine Resources Geographic Information System library (MRGIS), and more than 500 researchers on fish and wildlife in Florida. It is also the principal state stakeholder for wildlife resources in Florida.

Contact Information is as follows:
Florida Fish and Wildlife Conservation Commission
Fish and Wildlife Research Institute
100 Eighth Ave. SE
St Petersburg, Florida 33701
727-896-8626

FWC hosts and serves the full contents of the Digital Oil Spill Area Contingency Plans for USCG District 7 and Sector Mobile in USCG District 8 online. These include Documents (ACP and Annexes, References, Job Aids, and more), Maps (ESI and GRP), Tidal Inlet Protection Strategies (updated in December 2011),

and Geodata (ESI, GRP, Managed Areas, Booming Strategies, Collection Points, Staging Areas, and several other types of Ecological and Socio-Economic information), as well as an online GIS Web Mapping System specific to oil spill response in the coastal zones of Sectors Mobile, St. Petersburg, Key West, Miami, Jacksonville, Savannah, Charleston, and San Juan (US Virgin Islands)).

FWC-FWRI Online Resources for Oil Spill Response;

All of the Area Contingency Plans for Florida may be found online at:
http://ocean.floridamarine.org/acp

Sensitivity of Coastal Habitats and Wildlife to Spilled Oil Atlases Online (Statewide ESI Atlases)
http://ocean.floridamarine.org/esimaps

Tidal Inlet Protection Strategies (TIPS) for Oil Spill Response
http://ocean.floridamarine.org/acp/tips

At the national level, the USFWS has prepared two related plans, the Best Practices for Migratory Bird Care During Oil Spill Response (2003) and the Fish and Wildlife Service National Oil Spill Contingency Plan (2005). Both USFWS Plans can be viewed at http://www.fws.gov/contaminants/

The NMFS's Marine Mammal Health and Stranding Response Program has developed Marine Mammal Oil Spill Response Guidelines, currently under revision.
http://www.nmfs.noaa.gov/pr/pdfs/health/eis_appendixl.pdf

Florida's Wildlife Contingency Plan for Oil Spill Response is consistent with these Federal plans.

4. WILDLIFE BRANCH ORGANIZATION

In Florida, there are typically four Groups within the Wildlife Branch:

- Wildlife Reconnaissance (aerial, ground, and on-water reconnaissance of wildlife in the spill area);
- Wildlife Hazing;
- Wildlife Recovery and Transportation (search and collection); and
- Wildlife Care and Processing (rehabilitation and collection of animal evidence).

Figures 2 and 3 show the relationship of these Groups within the Wildlife Branch. The duties of these Groups are described in detail below. Note that the Wildlife Branch structure in Florida is expanded beyond the two groups (Recovery and Wildlife Rehabilitation Center Manager) described in the NCP. Staffing of the Wildlife Branch is discussed in the next chapter (Chapter 5).

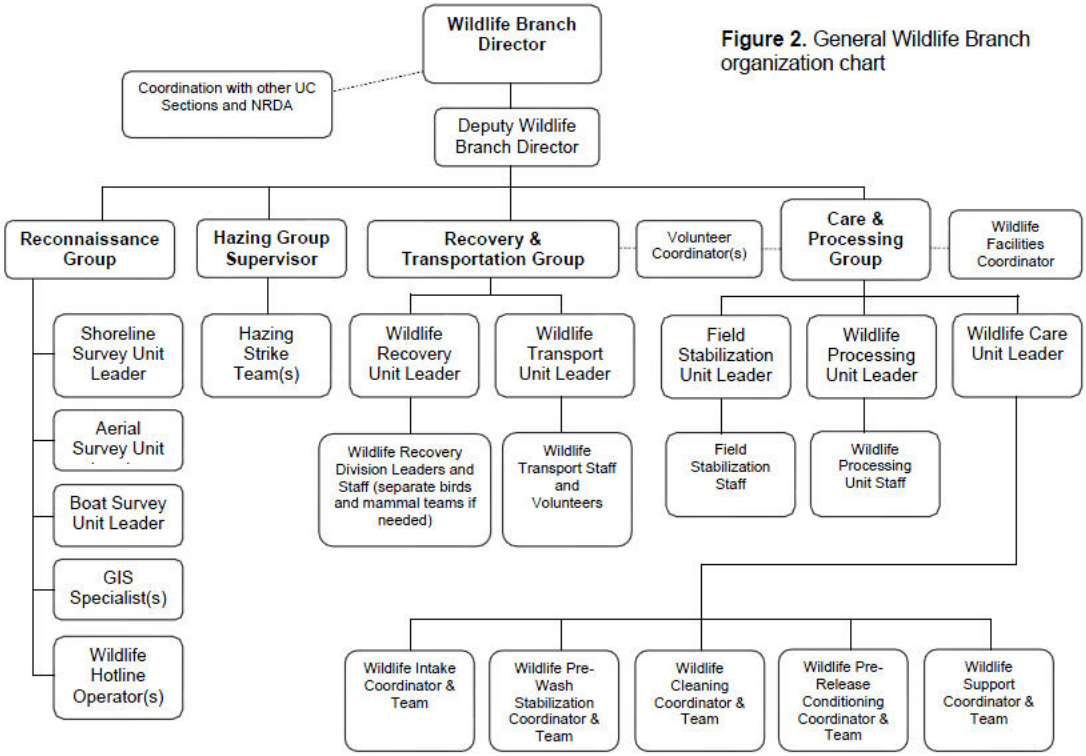

Figure 2. General Wildlife Branch organization chart

Figure 2. General Wildlife Branch organizational chart

For large catastrophic spills (e.g., a Spill of National Significance), an Area Command with multiple Incident Command Posts may be established. In this case, the ICS structure of the Wildlife Branch would potentially be replicated for each ICP, with an Area WBD overseeing and coordinating activities of each site-specific Wildlife Branch.

4.1 WILDLIFE RECONNAISSANCE GROUP

Baseline information on the status and distribution of wildlife and sensitive habitats is important in assessing Resources at Risk and developing appropriate response actions. This information is available during a spill response from the Environmental Unit of the Planning Section (Resources at Risk Specialist). However, variations from historic baseline conditions due to daily and seasonal movements of birds and mammals necessitate rapid, real-time reconnaissance of wildlife concentrations in the spill area as well. Depending upon the size and type of the spill and the habitats involved, real-time data will be collected using aircraft, boat, or ground surveys (discussed below). During spills, reconnaissance will also include phone calls from the public reporting sightings of oiled wildlife. The Wildlife Reconnaissance Group Supervisor is responsible for collecting and compiling all wildlife reconnaissance information and passing it on in a timely manner to the Recovery and Transportation Group Supervisor, the Planning

Section, and other Groups in the Wildlife Branch. It is important that information on the distribution of oiled wildlife be regularly communicated to the Wildlife Recovery and Transportation Group Supervisor. Reconnaissance activities should begin immediately upon notification of a spill. The Wildlife Reconnaissance Group can include Aerial, Boat, and Shoreline Survey Units. The main objectives of reconnaissance surveys are to evaluate the numbers, species, and locations of animals that could be or could have been affected by the spill. This information will be used to help direct wildlife Recovery and Transportation teams, will be used by the Planning Section to develop response strategies that minimize adverse effects on wildlife, and will keep the UC informed regarding any impacts. For access to any public or private land, the appropriate land manager should be contacted (refer to ACP/GRP, Site Summary Sheets for land manager/trustee contact information).

Experienced personnel are essential for effective wildlife reconnaissance. Observers should be able to identify species and recognize behavioral characteristics and should be knowledgeable about local ecological factors. At a minimum, personnel conducting wildlife reconnaissance should be experienced at identifying marine mammals, sea turtles and coastal birds and be able to determine at a distance whether a live animal is oiled. Local trustee agency personnel, such as local USFWS refuge biologists, can be extremely valuable for timely reconnaissance. For very small spills, Wildlife Reconnaissance Group teams may be integrated with Wildlife Recovery and Transportation teams. If specialized surveys for Threatened and Endangered species (including listed fish or invertebrates) are needed, additional wildlife specialists may be called in by the Reconnaissance Group Supervisor or the WBD. These specialists will advise the Branch Director and the UC about threats to listed species, the locations and numbers of oiled animals, and the potential need for pre-emptive capture, hazing or other protection strategies.

For smaller spills, the Wildlife Reconnaissance Group Supervisor role may be filled by the WBD or the Deputy WBD.

4.1.1 Wildlife Reconnaissance: Wildlife Alert Hotline

For any spill that may involve moderate to large numbers of oiled wildlife, an Oiled Wildlife Hotline will be established to allow the public a means of reporting oiled wildlife. For day-to-day operations, the FWC maintains a Wildlife Alert Hotline that allows the FWC to dispatch actions upon (as appropriate) public reports of wildlife-related incidents. This number will be used for any initial reporting of oiled wildlife.

Florida FWC Wildlife Alert Hotline, 888-404-FWCC (3922)

An operator from FWC Law Enforcement is always available to answer the above telephone number and can act on wildlife reports and concerns from the public.

During a spill response, the Wildlife Alert Hotline or Oiled Wildlife Hotline number will be provided in press releases. For every call, the personal answering the phone should record the following information:

- Date and time of call

- Caller's name and return phone number
- Date and time of observation
- Location of oiled animal(s), as specific as possible
- Type of animal (species, if known)
- Whether the animal is live or dead
- Whether the animal is in hand, on land, or in the water
- What degree of oiling is visible
- If the animal is live, its behavior and whether or not it appears to be catchable

The phone responder should inform callers that they should not attempt to capture oiled wildlife themselves, for the safety of both themselves and the animals. The phone responder should collate reports and provide this information through the appropriate chain of command regularly (e.g., immediately, or every 30 minutes, depending on the number of reports).

In addition, during larger spills, the Wildlife Reconnaissance Group Supervisor may want to establish a separate hotline to which members of the response team can report oiled wildlife (e.g., for cleanup crews or SCAT personnel to report oiled wildlife).

To report an oil spill in Florida or when conducting oil spill drills (not directly concerning wildlife), the Florida State Warning Point number should be used.

Florida State Warning Point 800-413-9911

4.1.2 Wildlife Reconnaissance: Aerial Survey Unit

The Aerial Survey Unit Leader, who reports to Wildlife Reconnaissance Group Supervisor, is responsible for coordinating, conducting, and supervising aerial reconnaissance surveys of wildlife at the spill site and in areas at risk from the spill. This includes reporting observations to the WBD through the Wildlife Reconnaissance Group Supervisor, coordinating with the Air Operations Branch (typically through the WBD), and coordinating with other Trustees regarding any flight altitude restrictions. See the Boat and Aircraft Operations Appendix for further guidance.

Using a standardized protocol, the Aerial Survey Team will characterize the abundance, distribution, and species identities of on-water marine birds and mammals in or near the spill area. This information is useful for helping direct response resources, both within and outside the Wildlife Branch, and is particularly important for larger offshore spills. At present, FWC *does not have* any contracts with trained experts in Florida to perform aerial surveys for wildlife reconnaissance during oil spills. Any

observers used for aerial reconnaissance for wildlife should have previous training regarding identification of marine birds and mammals from the air and knowledge of proper standardized survey techniques. An FWC or private charter airplane is usually used for marine mammal aerial survey flights. While in the air or immediately after landing, oral summaries of bird and mammal observations should be reported to the Group Supervisor who relays the information to the WBD, and electronic files are conveyed (e.g., via email) to the GIS Specialist who can prepare maps of survey results.

Current standardized protocols involve the use of two trained observers each of which surveys a 75-meter strip transect on either side of the plane, and a navigator who helps direct the pilot to appropriate transects and enters data called out by the observers into a real-time data entry and mapping program on a laptop computer. Flights are conducted at an altitude of 60 m (200 ft.); low overflights of bird colonies and rookeries are avoided to prevent disturbance (Follow guidance in the Boat and Aircraft Operations Appendix). Transect locations/layout will vary depending on the size and location of the spill (for more information on aerial survey methods, see the internal FWC-FWRI Aerial Survey Aviation Safety and Management Manual).

These flights complement but do not replace operational overflights for mapping oil (typically conducted by NOAA). It is also useful to have a qualified biologist participate in overflights for mapping oil, to report back on any large concentrations of wildlife. Although these flights are typically conducted at higher altitudes (making species identification difficult), they may occur before the Aerial Survey Team has arrived on site, thus giving them valuable starting information. Helicopter overflights may also be useful for locating concentrations of oiled wildlife on shorelines with difficult coastal access.

4.1.3 Wildlife Reconnaissance: Boat Survey Unit

The Boat Survey Unit Leader, who reports to Wildlife Reconnaissance Group Supervisor, is responsible for coordinating, conducting, and supervising boat reconnaissance surveys of wildlife at the spill site and in areas at risk from the spill. The Unit Leader reports observations to the Group Supervisor who relays the information to the WBD.

Boat-based surveys complement aerial surveys for wildlife and boat-based Recovery and Transportation field work. Boat-based surveys are not always needed, but they can be useful if fog or airport airspace prevents aerial surveys. Boat-based surveys can also provide more accurate estimates of abundance than aerial surveys if line-transect methods are used and can be used to search for oiled wildlife on shorelines not accessible by land. Dedicated reconnaissance surveys can cover a larger area than boat-based Recovery and Transportation, whose focus is on collecting oiled wildlife.

Exact survey methods will vary case by case. Observers will collect information on species present and their location and condition (live, dead, oiled, unoiled), basic weather and sea conditions, and any other notable information that may be useful to response efforts. Upon completion of a survey, or during it, if appropriate, survey results should be transmitted to the Wildlife Reconnaissance Group Supervisor.

In some cases, boat reconnaissance survey teams may also collect dead wildlife and catchable live oiled animals (although usually, and preferably, this is a duty of the Wildlife Recovery and Transportation Group). If this is a designated team assignment, personnel on board must have the necessary minimum qualifications, along with the specialized training and equipment needed to capture animals that might be found. Otherwise, sightings of recoverable wildlife must be relayed to the Wildlife Reconnaissance Group Supervisor for immediate follow-up and coordination with the Wildlife Recovery and Transportation Group.

Boat reconnaissance surveys would most likely be conducted by contracted experts or resource agency personnel. The survey methods, survey route, and transect design are established just prior to the survey to accommodate the specific areas, issues, and species of concern for a particular spill. In all cases, at least one member of the team must be qualified to operate the boat, given the habitat, weather, and sea conditions. Other personnel must be qualified to observe and identify wildlife and determine oiling status. Two persons are the minimum crew, but an optimally, from the perspectives of safety and search efficiency, a boat crew has three people. The WBD can arrange for acquiring the proper survey craft through the Logistics Section.

4.1.4 Wildlife Reconnaissance: Shoreline Survey Unit

The Shoreline Survey Unit Leader, who reports to Wildlife Reconnaissance Group Supervisor, is responsible for coordinating, conducting, and supervising shoreline wildlife reconnaissance operations, which includes reporting observations to the WBD through the Group Supervisor to aid in developing response strategy. Duties also include coordinating with the other trustee agencies and land managers (see Appendices).

The Reconnaissance Group Supervisor or Shoreline Survey Unit Leader will provide assignments and reporting instructions. Survey teams should be provided with the Shoreline Wildlife Reconnaissance Form, which will be used to track survey effort as well as findings. GPS receivers should be used to record locations of survey beginning and end points, survey transect routes, and locations of oiled animals. Photo documentation is also useful. During moderate-sized spills, survey teams should consist of at least two people for safety and to expedite the surveys. Reconnaissance teams should not collect any live or dead wildlife, to expedite surveying a large area.

Walking beaches on foot is the most common and most effective method for locating wildlife with little disturbance. However, depending on the terrain and the size of the area to be covered, four-wheel-drive vehicles or ATVs can also be used effectively to reduce survey or search time. Before authorizing any activities using vehicles for surveys or collections, the WBD must obtain authorization from appropriate trustee agencies or land owners and abide by guidelines in the Appendices. Because motorized vehicles may haze animals back into the water, caution and planning must be exercised. There should be close coordination with the Recovery and Transportation Group to avoid unintentional hazing of injured wildlife by the Reconnaissance Group. Please refer to the Appendices *Best*

Management Practices for Protection of Florida's Coastal Wildlife and *Guidance for Avoiding Impacts to Wildlife by Night Work Crews in Florida's Beaches*.

Because oiled wildlife often do not show up on shore within the first 24 hours after a spill, Recovery and Transportation personnel can often be used for the Reconnaissance Group initially, before transitioning to Recovery and Transportation as more oiled animals come ashore.

4.2 WILDLIFE HAZING GROUP

Wildlife hazing is intended to minimize injuries to wildlife by attempting to keep animals away from oil or cleanup operations. Hazing activities must take place only under the authority and oversight of trustee agencies, in coordination with the UC. The WBD or Hazing Group Supervisor will make the recommendation to haze to the UC. The recommendation will be guided by site-specific and species-specific factors present at the time of the spill and by availability of proven hazing techniques. Hazing contractors (or other hazing personnel) must be properly trained in the use of hazing equipment, and must use appropriate personal protection equipment and other safety precautions, per the Site Safety Plan.

Hazing usually includes deployment of acoustic or visual hazing devices. For additional guidance regarding hazing, it is suggested that wildlife operators refer to the publication by the California Department of Fish and Game and UC Davis, "Bird Hazing Manual: Techniques and Strategies for Dispersing Birds from Spill Sites," available online at: http://anrcatalog.ucdavis.edu/pdf/21638.pdf

4.3 WILDLIFE RECOVERY AND TRANSPORTATION GROUP

Recovery and Transportation of oiled wildlife involves collecting dead animals and capturing live ones and transporting them to processing centers. Wildlife collection by any agency or organization must be conducted under the direction of the WBD and the UC. Their activities must comply with agreements and permits from the appropriate management agencies (e.g., FWC, NOAA-NMFS, and USFWS).

Recovery and Transportation personnel are drawn from approved contractors and, if necessary, FWC, and other state and federal trustee agencies. Although not preferable, for very small spills, Wildlife Recovery and Transportation teams may be integrated with Wildlife Reconnaissance Group teams. Detailed guidelines for wildlife Recovery and Transportation can be found in the individual species group appendices of this contingency plan.

Specific duties of the Recovery and Transportation Group Supervisor include (but are not limited to):

- Overseeing all activities and safety of the Recovery and Transportation Group;

- Staffing the Recovery and Transportation Group (see Figure 2);
- Ensuring that members of the Group have read and signed the Site Safety Plan and are following proper safety protocols (e.g., wearing of PPE, if appropriate);
- Ensuring that members of the Group have the proper training for wildlife Recovery and Transportation, including protocols for collection of pertinent data;
- Developing communication protocols, including morning and evening briefings, and ensuring that Field Units have proper communication equipment such as mobile phones and/or two-way radios;
- Ensuring that field teams have the proper equipment, including PPE, nets, search effort reporting forms, GPS units, and animal carriers;
- Coordinating with local land managers and other trustee agencies (typically through the WBD);
- Providing information to Recovery and Transportation field teams on protocols to avoid collateral damage to sensitive species or habitats (see Appendices); and
- Providing timely information to the WBD on the status of Recovery and Transportation activities.

The Recovery and Transportation Group is typically based at the Field Stabilization trailer(s) or other staging area (see Section 4.4.1). This staging site will act as a check-in and check-out site for staff, a staging area for capture equipment, and a site for personnel decontamination. The Recovery and Transportation Group Supervisor or the WBD can coordinate with local land managers to locate appropriate staging areas.

4.3.1 Recovery and Transportation: Field Methods

Once animals have become oiled, habitat-specific and species-specific strategies to recover and remove oiled/debilitated live animals and all dead wildlife are required. Under the direction of the Recovery and Transportation Group Supervisor, systematic surveys for collecting affected wildlife should be carried out several times per day, including at least one survey as soon as is safely possible after dawn. Successful captures not only depend on the condition of the animal, but also on the training and experience of the handler, along with techniques and equipment used.

Surveys are often conducted on foot or by boat, however, the use of ATVs and four-wheel-drive trucks can expedite searches. Special considerations pertaining to collateral injuries to animals and habitat must be taken into account when using vehicles, or when surveying in wetlands on foot, or on beaches that may support sensitive nesting species (Appendices).

Each team should consist of at least two people and should be outfitted with the resources and equipment necessary to complete its assignment (see Appendix). GPS receivers should be used to mark locations of each survey's beginning and end points, locations at which animals are collected or captured, and places at which photographs were taken.

It is important that dead animals be collected, documented, and held until disposal is approved by the trustees. The prompt removal of dead oiled animals from the environment can be critical to minimizing the effects of secondary oiling such as poisoning of predators and scavengers. While conducting beach surveys or capturing wildlife during a response, it is not always feasible, reliable, or practical to attempt to discriminate between spill-related and non-spill-related casualties; thus all dead animals should be collected.

Recovery and Transportation Group personnel should provide on each animal transport container the following minimum information (at a minimum):

- Collector's name (and phone number if not part of the Recovery and Transportation Group effort);
- Collection location: general name and GPS coordinates;
- The date the animal was *recovered* from the beach;
- The time the animal was *recovered* from the beach; and
- Species or known taxa (e.g., "gull") of animal.

Although the standard method for Recovery and Transportation of birds is capture on the ground with a long-handled net, other techniques may be considered depending on conditions. For example, cannon nets may be considered for capture of large groups of birds (although there is a substantial risk to birds from this technique), and boat-based dip-netting may be appropriate in some cases. The Recovery and Transportation Group Supervisor in coordination with the WBD will determine the most appropriate methods and will ensure that field recovery teams use the most appropriate methods for wildlife collection (See Appendix on appropriate capture methods and documentation).

4.3.2 Recovery and Transportation: Marine Mammals

Typically during large oil spills, members of the Florida MMSN will respond to reports of live or dead oiled marine mammals. Standard protocols will be used to capture/collect marine mammals, in coordination with the NMFS MMSN Coordinator. Dead marine mammals encountered by other personnel will be reported to the Recovery and Transportation Group Supervisor, who will assign Marine Mammal Stranding Network personnel to collect the animal, or (if the animal is too large to collect) will coordinate with the Wildlife Care and Processing Group Supervisor to deploy a field Processing Team to collect information or evidence from the carcass as appropriate.

The WBD and the Recovery and Transportation Group Supervisor should evaluate need for marine mammal capture case by case in consultation with those trustee agencies that have specific regulatory authority, i.e., the USFWS (manatees) and the NMFS (cetaceans and in-water sea turtles). A Marine

Mammal and Turtle Stranding Report must be submitted as soon as possible following capture and transport of live mammals and within 24 hours (if feasible) for dead marine mammals and sea turtles.

4.3.3 Recovery and Transportation: Wildlife Transportation Unit

The Wildlife Transportation Unit Leader arranges transportation of wildlife from the field, from the stabilization trailer (if used), or from secondary care facilities to the primary care facility. See Appendix. The Wildlife Transportation Unit Leader reports to the Recovery and Transportation Group Supervisor.

Oiled animals should be transported from the field to the stabilization facility or the primary care facility as quickly and efficiently as possible. If transport will be, however, animals should be checked periodically and given water and food as needed. The interior of the transport vehicle should be maintained comfortably warm if animals are hypothermic, or cooled if they are hyperthermic; the Field Stabilization Unit Leader or the Wildlife Transportation Unit Leader will advise transporters as to recommended temperature. Vehicles should be kept as quiet as possible (i.e., radios or stereos turned off, voices kept low). Drivers should ensure adequate ventilation for themselves to reduce exposure to fumes; air vents should be open and directed at drivers' and passengers' faces. Transportation vehicles should be protected from oil contamination by lining animal holding areas (cargo areas or seats) with impermeable plastic. Oiled plastic should be disposed of in an oily-waste container at the R&T staging area, stabilization trailer, or care facility. Carriers (cardboard or plastic pet carriers or plastic sky kennels) should be placed level in the vehicle and with enough space between them to allow adequate ventilation. Carriers should be large enough to allow the animal to maintain as normal a posture as possible. At no time should oiled birds be transported in vehicles with children (i.e., persons younger than 16 to 18) or other animals (i.e., pets or, especially, other non-compatible birds).

Oiled birds should never be transported in open-air trucks. Cargo vans, passenger vehicles, or trucks with camper shells (if temperature is appropriate) should be used. Transport of oiled marine mammals or turtles will be arranged using appropriate species-specific protocols. Transportation protocols of other animals (e.g., fishes) will be determined as needed.

Transporters must ensure that data are transferred, as well as the animals. This includes information related to the animals' capture (see above) and Chain of Custody forms if required. Transporters should maintain communication (e.g., via cell phone) with the Wildlife Transportation Unit Leader. At a minimum, transporters should notify the Unit Leader when they depart the field site or stabilization unit with oiled wildlife, and when they arrive at the stabilization unit or primary care facility. The Wildlife Transportation Unit Leader should notify the primary care facility of the estimated time of arrival of oiled animals being transported from the field.

4.4 WILDLIFE CARE AND PROCESSING GROUP

The Wildlife Care and Processing Group within the Wildlife Branch has three Units: Field Stabilization, Wildlife Care, and Wildlife Processing. The Field Stabilization Unit provides triage in the field before animals are transported to a primary care facility. The Wildlife Care Unit ensures that wildlife exposed to petroleum products receive the best achievable care by providing access to veterinary services and rehabilitation centers. The Wildlife Processing Unit ensures that oiled animals are fully evaluated and data captured, so the UC can obtain oiled wildlife statistics used for a variety of purposes, such as response strategy development and media updates. This Group is directed by the Wildlife Care and Processing Group Supervisor, who reports to the WBD or (if activated) the Deputy WBD.

Depending on the size of the spill, Live Animal and Dead Animal Strike Teams can be formed to improve triage and stabilization capabilities for the live animals. Dead animal strike teams would focus on documentation, sample collection, and possibly necropsies. Live animal strike teams would begin documentation and sample collection, then transfer live animals to the Wildlife Care Unit for full medical evaluation.

For exceptionally large spills in which rehabilitation centers may be overwhelmed, the Wildlife Care and Processing Group Supervisor, in consultation with the WBD and the UC, may implement protocols for triage and, sometimes, euthanasia, effecting survival of as many animals as possible. In the case of cleaned animals requiring prolonged recovery time, transport to a long-term care facility may be considered.

Specific duties of the Wildlife Care and Processing Group Supervisor include (but are not limited to):

- Activating and maintaining wildlife stabilization, processing, and primary care centers during a response (permanent wildlife rehabilitation facilities are located throughout the state; see Appendix);
- Staffing necessary roles in the Group and ensuring that proper safety protocols are followed by everyone working in the Group;
- Working with the Wildlife Recovery and Transportation Group Supervisor to coordinate activities and arrange for transportation to established treatment centers for oiled animals;
- Overseeing stabilization activities in the field;
- Receiving and processing dead and live wildlife, which includes collecting and securing necessary evidentiary samples (e.g., feather, fur, or tissue samples; carapace swabs) from all animals;
- Coordinating combined resources and capabilities of all oiled wildlife response network member organizations to provide optimal treatment and rehabilitation services.
- Keeping the UC updated (through the WBD) regarding status of oiled animals (number, type, species, locations, and disposition).
- Coordinating release of rehabilitated wildlife as described in the Appendix, including communication of this information to the UC (through the WBD); and
- Updating WBD (or Deputy) on activities at least daily.

4.4.1 Care and Processing: Field Stabilization Unit

If necessary, mobile veterinary laboratories and animal care trailers can be dispatched to the field so that veterinarians and staff can perform preliminary examinations and stabilize wildlife before transporting them to the rehabilitation facility. In addition, smaller wildlife rehabilitation centers can be used as stabilization sites, and temporary stabilization centers can be set up using temporary structures.

The Field Stabilization Unit Leader oversees activities at the stabilization trailers or other stabilization facilities. These facilities are set up to provide triage stabilization to animals recovered in the field but before they are transported to a primary care facility. Stabilization typically includes warming (or some cases cooling) oiled animals to stabilize body temperature and providing water and food. A field stabilization facility can also act as a staging area for transportation of wildlife and for Wildlife Recovery and Transportation teams to check in, check out, access equipment, and dispose of contaminated equipment or personal protection equipment. The WBD can help situate the Field Stabilization Unit through coordination with local agencies and land managers.

The Stabilization Unit Leader is responsible for developing a plan for effective and efficient stabilization of wildlife (through activation of one or more trailers or facilities), for making staffing recommendations to the Wildlife Care and Processing Group Supervisor, for overseeing all activities at the facilities including collection and collation of field data, and for ensuring that the stabilization trailers or facilities are stocked with necessary supplies to provide appropriate care for wildlife. The Stabilization Unit Leader reports to the Wildlife Care and Processing Group Supervisor, but works closely with the Transportation Unit Leader to plan timely transportation of wildlife from the stabilization facility to the primary care facility. Close coordination between the Field Stabilization Unit Leader and the Wildlife Recovery and Transportation Group Supervisor is also required.

4.4.2 Care and Processing: Wildlife Care Unit

The Wildlife Care Unit Leader is responsible for examining, cleaning, and rehabilitating live oiled wildlife, and coordinating the release of rehabilitated wildlife. To provide optimum treatment and rehabilitation services, the Unit coordinates the combined resources and capabilities of all activated organizations.

The Wildlife Care Unit typically includes five subunits (see Figure 2): Wildlife Intake, Pre-Wash Stabilization, Cleaning, Pre-Release Conditioning, and Support. If a spill is very small, the Wildlife Intake subunit can assume all live and dead processing duties following the same procedures used by the Wildlife Processing Unit. In moderate-sized events, Intake can process live animals, leaving the processing of dead animals to the Processing Unit. However, in large-scale spills, live and dead animal processing may be accomplished through the Wildlife Processing Unit with the establishment of Live and Dead Animal Processing Strike Teams. Specific protocols for this subunit and the other subunits of the Wildlife Care Unit are maintained in internal federal and state guidelines.

Birds are the most abundant wildlife taken in at primary care facilities. They are often treated and released within three weeks of capture, once they meet established physiological and behavioral milestones specified by the detailed OWCP protocols. However, time in care depends on many different factors, including (but not limited to) spill location, type of oil involved, how oil affects different species, pre-existing injuries, seasonal conditions, and other logistical concerns. When rehabilitated animals are ready for release, clean, nonoiled release sites should be chosen after consulting the appropriate trustee agency or agencies and the Environmental Unit of the Planning Section (typically through the WBD). While exceptions can be made during spill emergencies, some agencies have specific requirements or policies regarding releasing animals on their property. For example, trustee agencies, such as Florida State Parks or National Marine Sanctuaries, may only allow the release of an animal on their property if that animal was captured on their property or if it has been determined that the release will not be detrimental to the ecosystem. As a part of spill response actions, birds and mammals are banded or tagged and, in some cases, fitted with telemetry equipment for post-release monitoring.

Primary care facilities are typically used for marine mammal and marine turtle rehabilitation during oil spills in Florida. Primary care facilities can be expanded if needed (e.g., with additional outdoor tents and pools), and additional temporary facilities can be created. Any veterinary facilities used for oil spill response must meet minimum space requirements and incorporate all required aspects of wildlife treatment and rehabilitation. An ideal facility should include:

- Security Plan (restricted public access);
- Areas for intake, physical examinations, and evidence processing that can be easily cleaned and disinfected;
- Locked storage for animal carcasses and data;
- A veterinary hospital with isolation capabilities;
- Indoor wildlife housing and caging;
- Food storage and preparation facilities;
- Animal washing and rinsing areas;
- Indoor drying pens;
- Outdoor pool and pen areas;
- Pathology/necropsy facilities;
- Restroom, eating, and volunteer training facilities;
- Administrative offices with multiple phone and fax lines and conference space;
- General and secured storage;
- Access to a large parking area; and
- Adequate ventilation, hot and cold water, and climate control.

Typically, spill response is focused only on native wildlife. Nonnative wildlife (introduced or invasive, hybrid, feral or peridomestic animals) may be collected and treated during spill response only if:

- Care of nonnative animals does not detract from care of native wildlife;
- Nonnative animals are not released back into the environment (see below);
- Animals will not be included in oiled wildlife logs or in documentation or evidence; and
- Costs associated with nonnative wildlife care will not be borne by the response unless specifically authorized by the UC.

Exceptions to the second condition above (release of nonnative animals) may be made only as specifically directed by the UC with concurrence from FWC. Nonnative restricted species will not be released or transferred without written permission from FWC.

Necropsies can help in identifying pathogens in captivity-related diseases and in guiding corrective actions in the care of surviving animals. For marine mammals and sea turtles, necropsies can determine whether apparently unoiled animals had ingested or otherwise been harmed by petroleum. To guide the Wildlife Care Unit in the treatment of surviving animals, necropsies may be recommended for selected carcasses and conducted by wildlife veterinarians or pathologists. However, the WBD must obtain approval from the UC for necropsies, and the appropriate federal trustee agencies (USFWS or NMFS) should also be consulted.

4.4.3 Care and Processing: Wildlife Processing Unit

The Wildlife Processing Unit Leader, who reports to the Wildlife Care and Processing Group Supervisor, is responsible for receiving, documenting, and storing all dead (and sometimes live) animals that have been collected. Wildlife processing is necessary to provide sufficient information to enable the UC to make timely and accurate statements concerning effects on wildlife, to help determine whether the state of the collected animals is spill-related, and for injury determination. If provided in a timely manner, this information is also useful to help in directing Recovery and Transportation. Timely compilation of information on the number of animals affected each day is typically one of the most pressing issues for the UC and the JIC.
The Processing Unit Leader is responsible for maintaining and reporting information on wildlife collected, including number, type, species, locations, and disposition of oiled wildlife. Information must be provided daily to the Wildlife Care and Processing Group Supervisor, who collates this information. The Wildlife Care and Processing Group Supervisor and WBD must be briefed at least once a day by the Processing Unit Leader. In small spills, the Wildlife Processing Unit Leader and the Wildlife Care Unit Leader may be the same person.

Ideally, all animals, live or dead, are transported to the primary care facility (or facilities, if there is a separate marine mammal facility), where the Processing Unit is based. Large dead marine mammals will typically be processed in situ per Florida MMSN protocols through deployment of a Field Processing team composed of trained and experienced marine mammal experts.

In most circumstances, the Wildlife Processing Unit will process only dead animals. During such spills, processing responsibilities for live animals will be absorbed by the Wildlife Care Unit and will follow the Live Animal protocols. During large-scale incidents, however, both a Live Animal Strike Team and a Dead Animal Strike Team may be mobilized to effectively and efficiently process large numbers of animals. In

these spills, multiple stations for processing may be needed, and positions at each station include a manager, receiver, data collector, data recorder, photographer, and animal handler. One person may sometimes fill several positions.

In all spills, photographs must be taken and oil samples collected and preserved in case chemical fingerprinting of the oil becomes necessary. Species identification will be determined and oiling information documented. All information is collected before live animals enter the care process or dead animals are taken to storage.

Following processing and documentation, all dead animals for which appropriate evidence has been collected (photos, feather samples, fur or carapace swabs) should be systematically packaged and stored in locked freezers on site until the conclusion of the event. In certain instances when on-site storage capacity has been reached, carcasses and samples can be transported (following appropriate Chain of Custody procedures) to other, secure freezers for storage, such as those maintained by FWC Law Enforcement or at the FWC Marine Mammal Pathobiology Laboratory in St. Petersburg. This will protect the interests of trustees, RPs, and the USCG. If necessary, the carcasses can be reexamined to resolve problems with body counts and species identification or to secure additional samples for investigations. When federal and state trustee agencies give the authorization, carcasses will be disposed of in accordance with federal and state laws. See Section 4.4.2. and Appendix for information on necropsies of carcasses.

4.5 INTERACTION WITH OTHER ICS SECTIONS

The WBD must coordinate with staff in the Planning Section, particularly its Environmental Unit. In addition, the WBD must coordinate with the Wildlife Branch, the JIC, and the Natural Resources Damage Assessment group, which is outside the UC structure. For larger spills, it is useful to fill specific roles for both a Wildlife Media Liaison (to assist with media relations at primary care facilities) and an NRDA Wildlife Liaison to coordinate wildlife-specific NRDA issues with the Wildlife Branch.

4.6 WILDLIFE BRANCH DIRECTOR DUTIES

All Florida Wildlife Branch operations during spill response are directed by the WBD, who supervises the four Groups described above. The WBD's duties include, but are not limited to:

- Arranging for staffing of the Branch;
- Developing the Wildlife Branch operations portion of the Site Safety Plan with approval of the Site Safety Officer and ensuring that the Site Safety Plan is implemented by all members of the Branch;
- Developing the Branch-specific portions of the Incident Action Plan for each operational period (ICS forms 204 and 215) through coordination with the Planning Section;

- Updating the UC, Operations Chief, Environmental Unit and Situation Unit (Planning Section), JIC, and Liaison Officer with information on wildlife at risk and spill-related wildlife statistics (e.g., numbers of dead/live oiled birds);
- Establishing internal communications protocols within the Branch;
- Determining resource needs in the Branch and arranging for resources through the Logistics Section (ICS form 213);
- Coordinating with the Sampling Specialist in the Planning Section, Environmental Unit regarding oil (from wildlife) samples being collected by Wildlife Branch personnel (if applicable);
- Coordinating with the various land managers and trustee agencies (refer to ACP Planning Section, Environmental Sensitivity Indices, Site Summary Sheets for land manager and trustee contact information) regarding Wildlife Branch operations, including potential beach closures to minimize human disturbance to oiled wildlife;
- Identifying methods to minimize collateral damage to wildlife and habitat from recovery, transportation, and reconnaissance operations and ensuring that the Branch implements these measures;
- Coordinating with Air Operations, if applicable (e.g., for aerial reconnaissance);
- Coordinating decontamination protocols for all personnel in the Branch and proper disposal of any oily waste generated by Branch operations;
- Coordinating with the NRDA wildlife liaison;
- Ensuring the appropriate use of technology to expedite completion of tasks and to provide greater accuracy of information.

4.6.1 Wildlife Branch Director, Operations

- **State of Florida.** In Florida it has been agreed that the WBD position will be filled with a state or federal employee from one of the Trustee Agencies that resides and works in Florida and is well familiar with Florida's wildlife and fisheries species and habitats. An employee or contractor of the Responsible Party or Potentially Responsible Party acting as the WBD is not acceptable to the State of Florida.
- **Local Interests.** Be careful to consider or include local wildlife-interest groups whenever possible.
- **Coordinate with Planning.** Work closely with specialists in the Environmental Unit in the Planning Section.

- **Anticipate Resource Needs.** Anticipate carcass retrieval and carcass storage requirements; request equipment accordingly. Anticipate support efforts such as hazing; determine equipment vendors, lead times, facilities, etc.

Primary Duty: Responsible for minimizing wildlife losses during the spill response.

Supervises: Assigned staff.
Reports To: Operations Section Chief.
Tasks and Responsibilities

- Upon assignment, **review responsibilities** and **check in** at designated check-in locations.
- **Receive briefing** from immediate supervisor and organize, assign, and brief subordinates.
- **Coordinate early aerial and ground reconnaissance of the wildlife** at the spill site and report results to Situation Unit Leader.
- Develop the Wildlife Branch portion of the IAP.
- Employ wildlife hazing measures as authorized in the IAP.
- **Recover and rehabilitate affected wildlife.**
- Assist the appropriate wildlife trustee in organizing and coordinating wildlife rescue and rehabilitation operations. Oversee and coordinate activities of private wildlife care groups including those employed by the responsible party.
- **Identify and maintain processing centers for evidence;** tasks include tagging, transportation, veterinary services, treatment, rehabilitation, and storage.
- Review Assignment lists (ICS 204) for Divisions / Groups within Branch. Adjust lists based on effectiveness of operations.
- Brief Operations personnel in accordance with the IAP and assign specific tasks to Division and Group Supervisors.
- Supervise Branch Operations.
- Resolve logistics problems.
- Report resource needs, surplus resources, hazardous situations, modifications to the IAP and significant events to Operations Section Chief.

Products

- Form 204 Assignment List: Receive ICS 204 from Operations Section Chief (whose responsibility, along with the Resources Unit Leader, it is to produce). Review assignment list. Submit to Planning Section Chief (for inclusion in the IAP), Documentation Unit, and Display Center immediately after the Planning Meeting.
- Form 214 Unit Log*:* Assign a member of your staff to complete the ICS 214. **Submit** to the Documentation Unit at the end of the Operational Period.
- Form 214a Individual Log: Summarize your daily activities on the 214a. Submit to the Operations Section Chief and the Documentation Unit at the end of the Operational Period.

Meetings

- Operations Briefing; assist with discussions as appropriate.

5. Florida Fish and Wildlife Conservation Commission

5.1 FWC MISSION:

The FWC Mission is "Managing fish and wildlife resources for their long-term well-being and the benefit of people."

5.2 FWC STAFF:

1,947 full-time employees.

Locations:

Headquarters: Tallahassee

Five regional offices: Panama City, Lake City, Ocala, Lakeland and West Palm Beach

Fish and Wildlife Research Institute in St. Petersburg

76 field offices and facilities throughout Florida.

5.3 FWC TERRITORY:

Florida has...

- 53,927 square miles of land
- 12,133 square miles of water
- More than 34 million acres of public and private land
  - Including 5.8 million acres of wildlife management areas (one of the largest public hunting systems in the country)
- 2,276 miles of tidal shoreline (8,426 detailed miles)*
- Approximately 12,000 miles of fishable rivers, streams and canals
- About 7,700 lakes (of 10+ acres), covering a total of 3 million acres

5.4 FLORIDA'S FISH AND WILDLIFE:

The FWC protects and manages...

More than 575 species of wildlife
More than 200 native species of freshwater fish
More than 500 native species of saltwater fish

... balancing these species' needs with the needs of nearly 19 million residents and the millions of visitors who share the land and water with Florida's wildlife.
Hunting, Fishing and Wildlife-watching Participation
Number of hunters: 239,000
Number of anglers
Freshwater (residents): 1,155,000
Freshwater (nonresidents): 262,000
Saltwater (residents): 1,286,000
Saltwater (nonresidents): 716,000
Days of fishing: 46,311,000
Number of wildlife watchers: 3.3 million
Annual Economic Impact
Hunting: $780 million, 10,700 jobs
Saltwater Fishing: $5.7 billion, 54,500 jobs
Freshwater Fishing: $2.6 billion, 24,800 jobs
Wildlife Viewing - $5.8 billion, 51,400 jobs
Boating: $16.8 billion, 203,000 jobs
Florida Seafood Industry (2008)
Commercial Harvesters: $171.4 million, 3,000 jobs
Seafood Processors and Dealers: $423.9 million, 4,000 jobs
Seafood Wholesalers and Distributors: $1.3 billion, 12,000 jobs
Retail Sector: $3.8 billion, 90,025 jobs
Total Impacts: $5.7 billion, 109,000 jobs

5.5 FWC – FISH AND WILDLIFE RESEARCH INSTITUTE

The Fish and Wildlife Research Institute's work includes assessment and restoration of ecosystems and studies of freshwater and marine fisheries, aquatic and terrestrial wildlife, imperiled species, and red tides. The Institute develops the information science required to analyze and disseminate research products and engages in outreach activities to complement all programs of the FWC.

5.6 WILDLIFE CARE NETWORKS IN FLORIDA

Florida has a number of wildlife care networks that are coordinated or operated by a range of individuals and organizations.

5.6.1 Florida Marine Mammal Stranding Networks

Name of Network: NMFS Southeast Region Marine Mammal Stranding Network (including Puerto Rico and U.S. Virgin Islands)
Website: http://www.sefsc.noaa.gov/species/mammals/strandings.htm

Primary Contact Information:
NMFS Southeast Marine Mammal Stranding Hotline: 877-433-8299

5.6.2 Sea Turtle Stranding Networks

Name of Network: Sea Turtle Stranding and Salvage Network (STSSN)
Website: - http://myfwc.com/research/wildlife/sea-turtles/mortality/stranding-salvage-network/

Primary Contact Information:
Dr. Allen M. Foley (State Coordinator)
Florida Fish and Wildlife Conservation Commission
Fish and Wildlife Research Institute
Jacksonville Field Laboratory
370 Zoo Parkway
Jacksonville, FL 32218
904-696-5904; -5903 Fax
FWC Wildlife Alert Hotline: 1-888-404-FWCC (1-888-404-3922)
Allen.Foley@MyFWC.com

Most members are Hazwoper Trained.

5.6.3 Sea Turtle Nesting Beach Survey Networks

Name of Network: Florida Sea Turtle Nesting Beach Surveys (SNBS) Network
http://myfwc.com/research/wildlife/sea-turtles/nesting/sea-turtle-monitoring/

Primary Contact Information:
Robin Trindell
Sea Turtle Nesting Survey Partnership Coordinator
Florida Fish and Wildlife Conservation Commission
Division of Habitat and Species Conservation
Imperiled Species Management
Koger-Atkins Bldg.
1320 Executive Center Drive
Tallahassee FL 32301
850-617-6055

Many members of this network are Hazwoper Trained.

5.6.4 Injured Bird Recovery Networks

Name of Network: RESERVED
Primary Contact Information: RESERVED

It is unknown how many members are Hazwoper Trained.

5.6.5 Other Wildlife Care or Monitoring Networks/Facilities

Florida State Agricultural Response Team (SART)
Website: http://www.flsart.org/

Mission Statement: SART is a multiagency coordination group consisting of governmental and private entities dedicated to strengthening all-hazard disaster capabilities through partnerships. Florida SART will support an effective and coordinated incident response for the animal and agricultural sectors in the State of Florida.
Contact Phone: 850-410-0900

University of Florida Aquatic Animal Medicine Program
Website: http://extension.vetmed.ufl.edu/aquatic-animal-health/
Mission Statement: To provide sustainable state of the art training, education, clinical, diagnostic and research support for aquatic animals, both wild and under the care of man. The program works in partnership with other University of Florida programs, private groups, oceanaria, industry, researchers, local, state, and federal stakeholders as well as other educational institutions.

Monitoring Network:
Florida Shorebird Database and Florida Shorebird Alliance
Website: http://public.myfwc.com/crossdoi/shorebirds/index.html

Long-term monitoring of shorebirds and seabirds across Florida is infeasible for any one agency or organization; it requires an extensive network of groups and individuals. The FSD facilitates this collaborative approach by providing a central location for data entry, compilation, and storage. However, the FSD is only as comprehensive as the network contributing to it. In an effort to coordinate and expand our coverage of shorebirds and seabirds in Florida, the Florida Shorebird Alliance) was created. The FSA is organized into regional partnerships that work locally to ensure important shorebird and seabird sites are surveyed and monitored. The FSD is managed by the FWC and is maintained as a free online resource for information on Florida's shorebirds and seabirds.

Primary Contact:

Naomi Avissar
Shorebird Partnership Coordinator
Florida Fish and Wildlife Conservation Commission
Division of Habitat and Species Conservation
3900 Drane Field Road
Lakeland, FL 33811
Tel: 863- 370-6305

5.7 Use of Volunteers

The use of volunteers will comply with provisions set forth in each region's Area Contingency Plan Volunteer Management Plan.

5.8 Wildlife Experts/Contractors

Reserved

5.9 Potential Responsible Party

Reserved

5.10 Personnel Safety

Reserved

5.11 Interaction with Local Agencies

Reserved

5.12 Interaction with Federal Agencies

Reserved

6. PREVENTING AND REDUCING IMPACTS TO WILDLIFE AND OTHER RESOURCES: BEST MANAGEMENT PRACTICES

6.1 IMPACTS OF OIL ON WILDLIFE AND HABITATS

Few long-term studies have been conducted or published, but the following sections outline some of the known impacts to wildlife and habitats. References are listed at the bottom of this section.

6.1.1 Birds

- Severe dehydration and emaciation[2]
- Loss of ability to self-regulate body temperature; hypothermia[2]
- Irritation to the lining of the mouth, esophagus, and stomach[2] resulting from ingestion of oil during cleaning
- Interruption in the intestines' ability to absorb nutrients, proteins, and water[2] as a result of irritants in oil
- Dehydration, resulting in urate accumulation (in kidneys, liver, and spleen) which will block the organs' normal functioning[2]
- As a result of the dysfunction of the kidneys, liver, and spleen, accumulation of toxic levels of uric acid (the nitrogen waste product in birds, analogous to urea in humans but much more potent)[2]
- In birds that manage to survive kidney, liver, and spleen failure, death resulting from their reduced ability to fight disease; for example, they become more susceptible to diseases such as aspergillosis, caused by a fungus that affects the lungs, and infection by *E. coli*[2]

6.1.2 Sea Turtles

- Oil clinging to the nostrils, eyes, and upper esophagus and can be found in the feces[6]
- Damage to airways and lungs[6]
- As much as a fourfold increase in white blood cell counts and a 50% reduction in red blood cell counts[6]
- Red blood cell polychromasia (often a symptom of anemia)[6]
- Acute inflammatory cell infiltration (acute swelling)[6]
- Cellular changes in the skin, capable of increasing susceptibility to infection[6]
- Recovery period requiring 21 days, as observed in laboratory experiments; long-term effects unknown[6]
- High sensitivity to chemical insults, as those from exposure to oil; vulnerable at all life stages[9]
- Increased chance of damage when oil is spilled during the nesting season[9]
- Interference with gas exchange in the eggs, altered hydric (water) environment, altered nest temperature[9]

- Esophageal swelling, displaced liver and intestines, and severe tissue swelling resulting from ingestion of tar balls; turtles eat anything of an appropriate size[9]
- Several days' retention of ingested oil in the body, increasing contact with internal tissues and organs and the likelihood that toxic compounds will be absorbed[9]
- On oiled sandy beaches, contamination of eggs, egg mortality, developmental defects, direct mortality in hatchlings, juveniles and adults[9]
- Damage to skin, blood, digestive system, immune system, and salt glands[9]
- Irritation of mucous membranes (of the nose, throat, and eyes), leading to inflammation and infection[4]

6.1.3 Sirenians (manatees)

- Less likely to suffer from skin adherence of oil[4]
- Could damage sensory hairs around their mouths which serve as sensors as they search for edible sea grasses; this could cause inflammation and infections[4]
- Lipid pneumonia as a result of inhalation of oil[4]
- Consumption could cause long term chronic effects such as liver problems[4]

6.1.4 Cetaceans

- Death. For example, killer whales were found dead after the *Exxon Valdez* oil spill[4]
- Avoidance; dolphins have been shown capable of sometimes (but not always) detecting and avoiding oil[4]
- Damages to airways, lungs, and mucous membranes or, possibly, death, as a result of inhalation[4]

6.1.5 Fish

- Effects on fish depend on their habitat (e.g., pelagic vs. reef fish)[4]
- Oil-sensitivity in fish eggs, larvae, and young fish; accumulation to toxic levels in the organism[4]
- Avoidance action has been observed, although further study is needed[4]
- Death; the magnitude of oil-induced deaths of young fish and larvae, however, is often much less than that of death through natural predation and fishing[4]
- Increased risk to stocks when a spill coincides with spawning periods[3]
- Fish kills in shallow coral reef habitats[3]
- Effects on reproduction and feeding in fish and shellfish at low concentrations of oil, for example, reduced hatching success, reduced larval survival, increased incidence of larval abnormalities, and, in shellfish, shell closure[3]
- Disruption in searching, feeding, and grooming behavior in lobsters and in mating behavior in crabs[3]

6.1.6 Corals

- Death[7]
- Tissue death[7]
- Impaired feeding response[7]
- Impaired polyp retraction[7]

- Impaired sediment clearance ability (which could ultimately cause mortality)[7]
- Increased mucus production[7]
- Change in calcification rate (reduced growth of hard structure of the coral)[7]
- Damage to gonad [7]
- Premature extrusion of planula larvae[7]
- Larval death[7]
- Impaired larval settlement[7]
- Expulsion of zooxanthellae (the photosynthesizing symbiont which provides the coral with most of its energy)[7]
- Change in primary production of the zooxanthellae[7]
- Muscle atrophy [7]
- Disintegration of tissues; in a few coral species, even low-level exposure has been found to cause almost complete disintegration after 48 hours[7]. And, longer exposure (4–48 hours) to low concentrations of oil may be more toxic than shorter exposure at a higher concentration[7]
- Nearly complete mortality of branching corals; branching corals are the most susceptible, and massive corals are more tolerant[7]
- Death of entire colonies resulting from chronic exposure[7]
- Reproductive impacts, depending on coincidence of spill with spawning time[7]

6.1.7 Mangroves

- High susceptibility to oil exposure; trees can be killed within a few weeks to several months of a spill impact; most tree deaths occur in the first 6 months following exposure.[8]
- Toxicity; lighter oils more acutely toxic to mangroves than heavier oils[8]
- Yellowing of leaves, defoliation, death, germination failure, increased mutation[8]
- Poor recovery; invertebrates and plants associated with mangroves recover more quickly from than do the mangroves themselves. [8]
- Seedling death of more than 96% in one study[8]
- Chlorosis (leaves with insufficient production of chlorophyll), resulting in severely decreased energy fixation by photosynthesis[8]

6.1.8 Seagrasses

- Following heavy oiling, loss of upper green, leafy portion of plant, with regrowth evident[1]
- Effects on invertebrates living in seagrass beds[1]
- Often rapid recovery—in 2–3 weeks[5]
- Black, or "burnt," leaves, but with production of new leaf tissue continuing normally[5]
- In the benthic organisms living in the seagrass beds, strong decreases in both the number of individuals and the number of species present after an oil spill[5]
- Among organisms living on the seagrass blades and the juveniles using the beds as nurseries, high sensitivity to oil on the seagrass and sediments[5]

6.1.9 References:

***(compilation source: Katie Wirt, Center for Spatial Analysis, FWC-FWRI, May 2010)**

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7.) SHIGENAKA, G., R. YENDER, A. MEARNS, and C. HUNTER.
2001. Oil spills in coral reefs: planning & response considerations. In R. Z. Hoff, ed., Title needed for overall work assuming that this is a paper in an overall work, or if that is overall work, title needed instead for the paper cited. Washington: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, Office of Response and Restoration.

8.) HOFF, R. Z., P. HENSEL, E. C. PROFFITT, P. DELGADO, G. SHIGENAKA, R. YENDER, and ALAN J. MEARNS, editors.
2002. Oil spills in mangroves: planning & response considerations. Washington: National Oceanic and Atmospheric Administration, National Ocean Service, Office of Response and Restorationt.

9.) MILTON, S., P. LUTZ, R. Z. HOFF, R. A. YENDER, and A. J. MEARNS.
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6.2 CONSIDERATIONS FOR IMPLEMENTING RESPONSE COUNTERMEASURES

Reserved

6.3 REDUCING DISTURBANCE-RELATED IMPACTS TO WILDLIFE

Reserved. See Appendices **Best Management Practices for Protection of Florida's Coastal Wildlife** , **Guidance For Avoiding Impacts To Wildlife By Night Work Crews On Florida's Beaches.**

6.4 WILDLIFE HAZING

Wildlife hazing is a means by which wildlife (typically birds) are hazed from a location that may be at risk from an event. This can include use of such methods as air cannons or air horns to keep animals from returning to a given location. All wildlife hazing activities should be coordinated through the WBD or assigned staff of the Wildlife Branch. For additional guidance regarding hazing, it is suggested that wildlife operators refer to the publication by the California Department of Fish and Game and UC Davis, "Bird Hazing Manual: Techniques and Strategies for Dispersing Birds from Spill Sites," available online at: http://anrcatalog.ucdavis.edu/pdf/21638.pdf

6.5 PRE-EMPTIVE CAPTURE OF WILDLIFE

The pre-emptive capture of wildlife for relocation out of harm's way has occurred before in Florida and this activity is encouraged if enough time, staff, equipment, and money is available for the effort. In all cases, only knowledgeable and permitted staff will be used to accomplish these tasks and only if authorized. Some examples of these activities are:

Removal of beach mice colonies to captivity until after an event has passed.

Moving of sea turtle nests/eggs to another beach that is not at risk from the event.

Capture and moving of manatees from an area at risk to either temporary captivity or to a suitable location that is not at risk.

6.6 WILDLIFE CAPTURE GUIDELINES

Please see the specific Appendices as follows:

6.6.1 Birds

Wildlife Branch Positions in the Unified Command
Florida Wildlife Operations Contacts
Oiled Wildlife Recovery Operations Protocol

Stabilization and Rehabilitation Centers
Capture Guidelines for Oiled Birds and Terrestrial Wildlife During Oil Spill Responses
Guidance for Avoiding Impacts to Wildlife by Night Work Crews on Florida's Beaches
Best Management Practices for Protection of Florida's Coastal Wildlife
Carcass Collection Protocols for Oil Spill Response
Special Conditions for Access to Public and Private Lands
Boat and Aircraft Operations
Guidance for Releasing Rehabilitated Migratory Birds

6.6.2 Marine Mammals

Wildlife Branch Positions in the Unified Command
Florida Wildlife Operations Contacts
Oiled Wildlife Recovery Operations Protocol
Stabilization and Rehabilitation Centers
Manatee Guidelines for Oil Spill Response
Marine Mammal-Sea Turtle Protocols for Dedicated SCAT
Best Management Practices for Protection of Florida's Coastal Wildlife
Carcass Collection Protocols for Oil Spill Response
Special Conditions for Access to Public and Private Lands
Boat and Aircraft Operations

6.6.3 Terrestrial Mammals

Wildlife Branch Positions in the Unified Command
Florida Wildlife Operations Contacts
Oiled Wildlife Recovery Operations Protocol
Stabilization and Rehabilitation Centers
Capture Guidelines for Oiled Birds and Terrestrial Wildlife During Oil Spill Responses
Guidelines for other Terrestrial and Aquatic Wildlife During Oil Spill Response
Guidance for Avoiding Impacts to Wildlife by Night Work Crews on Florida's Beaches
Best Management Practices for Protection of Florida's Coastal Wildlife
Carcass Collection Protocols for Oil Spill Response
Special Conditions for Access to Public and Private Lands
Boat and Aircraft Operations

6.6.4 Reptiles

Wildlife Branch Positions in the Unified Command
Florida Wildlife Operations Contacts
Oiled Wildlife Recovery Operations Protocol
Stabilization and Rehabilitation Centers
Sea Turtle Guidelines for Oil Spill Response
Marine Mammal–Sea Turtle Protocols for Dedicated SCAT
Guidelines for other Terrestrial and Aquatic Wildlife During Oil Spill Response
Guidance for Avoiding Impacts to Wildlife by Night Work Crews on Florida's Beaches

Best Management Practices for Protection of Florida's Coastal Wildlife
Carcass Collection Protocols for Oil Spill Response
Special Conditions for Access to Public and Private Lands
Detailed Wildlife Resources at Risk by Region-U.S. Coast Guard Sectors
Boat and Aircraft Operations

6.6.5 Fish

Wildlife Branch Positions in the Unified Command
Florida Wildlife Operations Contacts
Oiled Wildlife Recovery Operations Protocol
Best Management Practices for Protection of Florida's Coastal Wildlife
Carcass Collection Protocols for Oil Spill Response
Special Conditions for Access to Public and Private Lands
Detailed Wildlife Resources At Risk by Region-US Coast Guard Sectors
Boat and Aircraft Operations

7. ACTIVATION OF FLORIDA WILDLIFE OPERATIONS

7.1 ACTIVATION OF FWC WILDLIFE OPERATIONS RESOURCES

Contact the FWC Wildlife Alert Hotline, 888-404-FWCC (3922), Oilspill@myfwc.com
Call the State Scientific Support Coordinator for Oil Spills, 727-896-8626.

7.2 ACTIVATION OF WILDLIFE BRANCH OPERATIONS RESOURCES

Activation of Wildlife Branch Operations will begin upon the establishment of a Unified Command

7.3 CRITERIA FOR ACTIVATING WILDLIFE BRANCH OPERATIONS

Activation of Wildlife Branch Operations will begin upon the establishment of a Unified Command

7.3.1 Florida Wildlife Notifications

Initially, or for a small spill, the FWC Wildlife Alert Hotline, 888-404-FWCC (3922), will be used for wildlife notifications, but in the event of a large spill, a separate number may be established for incidents specifically related to that spill.

7.3.2 FWC Activation

The Florida Wildlife Alert Hotline, 888-404-3922, will be the initial point of notification for oiled wildlife response. In the event of large incidents, which sometimes require broadened involvement by the FWC,, the decision to broaden that involvement will be made specifically for the case that is under way.

7.4 Criteria for Deactivating or Demobilizing Wildlife Branch Operations

A step-wise approach is recommended in demobilization planning. Demobilize Field Staff, Demobilize Office Staff, Demobilize key personnel. The Planning Section should be notified of the demobilization plan or may have written a demobilization plan for the Wildlife Branch to follow. The JIC should also be notified of the demobilization plan. All documentation should be provided to the Documentation Unit Leader.