Final Project Plan and

Environmental Assessment

Comprehensive Management of Nutria Herbivory Damage in Coastal Louisiana

and

Coastwide Nutria Control Program (LA-03b)

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Comprehensive Management of Nutria Herbivory Damage in Coastal Louisiana
and
Coastwide Nutria Control Program (LA-03b)

Final Project Plan and Environmental Assessment

ABSTRACT

Nutria (*Myocastor coypus*), native to South America, is an introduced and invasive semi-aquatic rodent in coastal Louisiana resulting from escapes and possible releases from nutria farms in the 1930s. The decline in fur trapping activity since the mid-1980s has resulted in over population of nutria. Annual surveys have revealed that approximately 100,000 acres of Louisiana coastal wetlands can be impacted (heavy grazing to conversion to open water) by nutria at any one point in time. Nutria herbivory damage is ongoing, and many damaged sites are not likely to recover naturally. Without comprehensive management of nutria herbivory damage, the stability of the Louisiana coastal ecosystem is threatened. This document describes and evaluates the potential impacts of the proposed Comprehensive Management of Nutria Herbivory Damage in Coastal Louisiana and Coastwide Nutria Control Program LA-03b (Program). The recommended plan consists of 1) implementing an incentive payment program to encourage the harvest of up to 400,000 nutria annually from coastal Louisiana (Coastwide Nutria Control Program LA-03b), 2) investigating techniques to promote revegetation of damaged sites with native vegetation, and 3) pursuing additional funding and/or funding sources to conduct more comprehensive revegetation. The goal of the recommended plan is to reestablish the ecological balance (plant and animal) that existed when the number of nutria harvested was high. The Coastwide Nutria Control Program LA-03b is funded under authorization of the Coastal Wetlands Planning, Protection, and Restoration Act -- Public Law 101-646 (Eleventh Priority Project List); the Louisiana Department of Natural Resources (LDNR) will provide the non-federal share of the total cost of the program and the Louisiana Department of Wildlife and Fisheries (LDWF) will be the lead implementing agency; the Natural Resources Conservation Service (NRCS) will serve as the federal sponsor. The investigation of techniques to promote revegetation of damaged sites with native vegetation is funded under a cooperative agreement between the Louisiana State University Agricultural Center and NRCS, and under a grant from National Oceanographic and Atmospheric Association (NOAA) to LDWF. More comprehensive revegetation of damaged sites is unfunded at this time. No significant environmental impacts are anticipated as a result of program implementation. This document is intended to fulfill the requirements of the National Environmental Policy Act.

This document was prepared by the U. S. Department of Agriculture, Natural Resources Conservation Service under the authority of the Coastal Wetlands Planning, Protection, and Restoration Act of November 1990, House Document 646, 101st Congress.

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SUMMARY OF PROJECT PLAN/EA

Project Name: Comprehensive Management of Nutria Herbivory Damage in Coastal Louisiana and Coastwide Nutria Control Program (LA-03b)

Parishes: All or part of the following Parishes: Acadia, Ascension, Assumption, Calcasieu, Cameron, East Baton Rouge, Iberia, Iberville, Jefferson, Jefferson Davis, Lafayette, Lafourche, Livingston, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John, St. Martin, St. Mary, St. Tammany, Tangipahoa, Terrebonne, Vermilion, and West Baton Rouge.

State: Louisiana

Federal Sponsor: U.S.D.A. Natural Resources Conservation Service (NRCS)

Non-federal Sponsor: Louisiana Department of Natural Resources (LDNR)
Louisiana Department of Wildlife and Fisheries (LDWF)

Description of Recommended Plan:

The recommended plan consists of 1) implementing an incentive payment program to encourage the harvest of up to 400,000 nutria (*Myocastor coypus*) annually from coastal Louisiana (Coastwide Nutria Control Program), 2) investigating techniques to promote revegetation of damaged sites with native vegetation, and 3) pursuing additional funding and/or funding sources to conduct more comprehensive revegetation of nutria damaged sites. The Coastwide Nutria Control Program is funded under authorization of Public Law 101-646 (Eleventh Priority Project List); LDNR will provide the non-federal share of the total cost of the program and LDWF will be the lead implementing agency; NRCS will serve as the federal sponsor. The investigation of techniques to promote revegetation of damaged sites with native vegetation is funded under a cooperative agreement between the Louisiana State University Agricultural Center and NRCS, and under a grant from National Oceanographic and Atmospheric Association to LDWF. More comprehensive revegetation of damaged sites is unfunded at this time.

Resource Information:

Program Area	13,048,000 Acres
Land Ownership: Private and Public	
Habitat Types	
Fresh Marsh	911,000 Acres (7%)
Intermediate Marsh	345,000 Acres (3%)
Brackish Marsh	691,000 Acres (5%)

Saline Marsh	363,000 Acres (3%)
Wetland Forests	1,762,000 Acres (13%)
Upland Forests	252,000 Acres (2%)
Scrub-Shrub	259,000 Acres (2%)
Cropland/Grassland	1,791,000 Acres (14%)
Urban	468,000 Acres (4%)
Barren	24,000 Acres (<1%)
Water	6,183,000 Acres (47%)

Threatened and Endangered Species

Federally-listed threatened (T) and endangered species (E) that occur within the Program area and within the same habitats occupied by nutria include the bald eagle (T) and American alligator (T). Initially, the U.S. Fish and Wildlife Service (USFWS) expressed concern about the recommended plan because of the possible toxic effect of lead ingested by bald eagles while feeding on nutria left in the field after being taken or wounded with lead shot. Program modifications were made, leading to a USDA-NRCS determination that the recommended plan is not likely to adversely affect the bald eagle. By letter September 17, 2002, the USFWS concurred with that determination.

Essential Fish Habitat

The essential fish habitats that occur in the Program area include the following estuarine habitats: inner marsh, marsh edge, submerged aquatic vegetation, tidal creeks, mud bottoms, and water column. While the No Action Alternative would have allowed a substantial decrease in the quality of the project area's essential fish habitat, the recommended plan would partially protect the quality of the project area's essential fish habitat and would partially maintain the Program area's ability to support multiple life stages of Council-managed species.

Cultural Resources

There are several known cultural resource sites within the Program area, but the recommended plan is expected to have no effect on those sites.

Problem Identification:

Nutria (*Myocastor coypus*), native to South America, is an introduced and invasive semi-aquatic rodent in coastal Louisiana resulting from escapes and possible releases from nutria farms in the 1930s. The decline in fur trapping activity since the mid-1980s has resulted in over population of nutria. Annual surveys have revealed that approximately 100,000 acres of Louisiana coastal wetlands can be impacted (heavy grazing to conversion to open water) by nutria at any one point in time. Nutria herbivory damage is ongoing, and many damaged sites are not likely to recover naturally. Without comprehensive management of nutria herbivory damage, the stability of the Louisiana coastal ecosystem is threatened.

Alternative Plans Considered:

No Action (traditional trapping and recreational hunting)
Incentive Payment Program
Chemical Control
Incentive-bonus Program
Induced Infertility
Chemical Repellents
Revegetation of Nutri Herbivory Damaged Sites

Plan Objectives:

1. Eliminate or significantly reduce damage to Louisiana coastal wetlands, including the conversion of marsh to open water, resulting from nutria herbivory.
2. Identify techniques to promote revegetation of damaged sites with native species.
3. Identify funding sources to conduct more comprehensive revegetation of sites damaged by nutria herbivory.

Principle Plan Measures:

1. Implement an incentive payment program to encourage the harvest of up to 400,000 nutria annually from coastal Louisiana.
2. Investigate techniques to promote revegetation of damaged sites with native species.
3. Pursue additional funding and/or funding sources to conduct more comprehensive revegetation of sites damaged by nutria herbivory.

Project Benefits:

The Wetland Value Assessment predicted that the removal of 400,000 nutria annually would reduce the conversion of fresh, intermediate, and brackish marsh to open water by about 15,000 acres over 20 years. Additionally, the 100,000 acres of nutria impact (heavy grazing to conversion to open water) currently being observed is expected to be significantly reduced and the project would greatly serve to protect significant coastal restoration investments that are being made in areas where nutria damage is prevalent. Nutria control will also be beneficial in coastal swamps where nutria can completely eliminate cypress regeneration.

If efficient techniques can be identified for revegetation of damaged sites with native vegetation and a funding source can be identified, it may be possible to restore several thousand acres of damaged sites.

Potential Adverse Impacts:

No long-term adverse impacts to wetlands, water quality, threatened or endangered species, species managed by Gulf of Mexico Fishery Management Council or their essential habitat, other fish and wildlife resources, recreational or socio-economic resources, or cultural resources are anticipated.

INTRODUCTION

Nutria (*Myocastor coypus*), native to South America, is an introduced and invasive semi-aquatic rodent in coastal Louisiana resulting from escapes and possible releases from nutria farms in the 1930s. The decline in fur trapping activity since the mid-1980s has resulted in over population of nutria. Annual surveys have revealed that approximately 100,000 acres of Louisiana coastal wetlands can be impacted (heavy grazing to conversion to open water) by nutria at any one point in time (Mouton et al. 2001). Nutria herbivory damage is ongoing, and many damaged sites are not likely to recover naturally. Without comprehensive management of nutria herbivory damage, the stability of the Louisiana coastal ecosystem is threatened.

The proposed Comprehensive Management of Nutria Herbivory Damage in Coastal Louisiana described in this document has three objectives: 1) eliminate or significantly reduce damage to Louisiana coastal wetlands, including the conversion of marsh to open water, resulting from nutria herbivory, 2) identify techniques to promote revegetation of damaged sites with native species, and 3) identify funding sources to conduct more comprehensive revegetation of sites damaged by nutria herbivory.

The first objective will be addressed by the Coastwide Nutria Control Program LA-03b (Program), which will provide incentive payments to encourage the harvest of up to 400,000 nutria annually from coastal Louisiana. Federal funds to be used for planning and implementing projects which create, protect, restore, and enhance wetlands in coastal Louisiana are provided by the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) of 28 November 1990, House Document 646, 101st Congress. The Act calls for formation of the Louisiana Coastal Wetlands Conservation and Restoration Task Force (LCWCRTF) to consist of the Secretary of the Army, the Administrator of the Environmental Protection Agency (EPA), the Governor of Louisiana, the Secretary of Interior, the Secretary of Agriculture, and the Secretary of Commerce. The Louisiana Department of Natural Resources (LDNR) typically serves as the local cost-share partner for projects.

The Program was approved and is included on the Eleventh Priority Project List that will be submitted to Congress in 2002. Once compliance with applicable environmental laws and regulations is achieved and the Program procedures are finalized, implementation of the Program is authorized to begin.

Under CWPPRA specifications, the Program will be cost-shared between the federal sponsoring agency and the State of Louisiana. Pursuant to approval of the Louisiana Coastal Wetlands Conservation Plan, the federal government provides 85 percent of the project cost and the State of Louisiana contributes the remaining 15 percent. The United States Department of Agriculture (USDA), through the Natural Resources Conservation Service (NRCS), acts as the federal sponsor for this Program. The LDNR will provide the local cost-share for the Program. For this Program, the Louisiana Department of Wildlife and Fisheries (LDWF) will be the lead implementing agency.

Concurrent with implementation of the Program and to address the second objective described above, an investigation of techniques to promote revegetation of damaged sites with native

species will be funded under a cooperative agreement between the Louisiana State University Agricultural Center and NRCS and under a grant from NOAA to LDWF.

Because more comprehensive revegetation of damaged sites is unfunded at this time, the third objective of Comprehensive Management of Nutria Herbivory Damage in Coastal Louisiana is to identify funding sources for that purpose.

This Project Plan/Environmental Assessment (Plan/EA) has been prepared to fulfill the requirements of the National Environmental Policy Act of 1969 (NEPA). This Plan/EA describes problems affecting the area, significant resources, alternatives, the recommended alternative and its impacts, and public participation.

PROJECT SETTING

Location

Comprehensive management of nutria herbivory damage in coastal Louisiana, including the Coastwide Nutria Control Program LA-03b, will encompass all or part of the following Louisiana Parishes: Acadia, Ascension, Assumption, Calcasieu, Cameron, East Baton Rouge, Iberia, Iberville, Jefferson, Jefferson Davis, Lafayette, Lafourche, Livingston, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John, St. Martin, St. Mary, St. Tammany, Tangipahoa, Terrebonne, Vermilion, and West Baton Rouge. The Program area is bounded on the south by the Gulf of Mexico, on the east by the Louisiana-Mississippi line, on the west by the Louisiana-Texas line, and on the north by Interstate 10 from Louisiana-Texas line to Baton Rouge, Interstate 12 from Baton Rouge to Slidell, and Interstate 10 from Slidell to the Louisiana-Mississippi line (Figure 1).

Climate

Average annual precipitation ranges from 48 to 65 inches, resulting from rains occurring throughout the year. The average annual temperature is 70° F. The average frost-free period is 280 to 350 days (USDA-SCS 1981).

Soils

The Louisiana General Soil Map (USDA-NRCS et al. 1998) identifies six general soil groups in the Program area. These groups align with physiographic sub-regions identified in Agricultural Handbook 296 (USDA-SCS 1981).

Soils of the Gulf Coast Chenier Marsh, occurring primarily west of Vermilion Bay, are Allemands, Kenner, Ged in fresh marsh; Bancker, Clovelly, Lafitte in brackish marsh; and Scatlake, Mermentau, and Creole in the saline marsh. Soils in this physiographic sub-region are made up of recent alluvial and mineral sediments and organic accumulations, are very poorly drained, are susceptible to very frequent flooding, and have water tables at or above the surface most of the time.

Soils of the Gulf Coast Deltaic Marsh, primarily east of Vermilion Bay are Allemands, Kenner, Larose in fresh marsh; Clovelly, Lafitte, Bancker in brackish marsh; and Scatlake, Timbalier, and Bellpass in saline marsh. Soils in this physiographic sub-region are made up of recent alluvial and mineral sediments and organic accumulations, are very poorly drained, are susceptible to very frequent flooding, and have water tables at or above the surface most of the time.

Soils of the Subtropical Mississippi Valley Silty Uplands sub-region originated as wind deposited loess that grades from thick to thin as distance from the river channel increases. The Patoutville, Jeanerette, and Frost soils are deep and loamy throughout, are somewhat poorly to poorly drained, and are moderately slowly to slowly permeable. Flooding on Frost soils ranges from rare to frequent. Memphis soils occur on the escarpments immediately adjacent to river banks. They are well drained, moderately permeable, and do not flood.

Soils of the Coastal Prairie sub-region are deep, with loamy surfaces and loamy to clayey subsoils. The Crowley, Mowata, Vidrine, Morey, Basile, and Midland soils are somewhat poorly to poorly drained, and have slow to very slow permeability. Crowley soils do not flood, but the others flood rarely to frequently.

Soils of the Eastern Gulf Coast Flatwoods subregion are typically deep and loamy or silty throughout. Stough, Myatt, and Abita soils occur on stream terraces and upland flats while Ouachita, Rosebloom, and Bibb are on floodplains. These soils are well to poorly drained and have moderate to slow permeability. The soils on floodplains flood at a rare to frequent rate of recurrence.

Predominant Land Use / Habitat Descriptions

The distribution and acreage of predominant land uses and habitat types as described in this section are based on data from Hartley et al. (2000), modified by U. S. Geological Survey (2002) to consolidate the number of land uses and habitat types within the Program area (Figure 2). Plant scientific names are presented in Appendix A.

Fresh Marsh

There are approximately 911,000 acres of emergent fresh marsh in the Program area. Typical emergent vegetation is maidencane, pennywort, pickerelweed, alligatorweed, bulltongue, and spike rush (Linscombe et al. Undated, Chabreck 1972). Fresh marsh salinity typically ranges from 0 to 3 parts per thousand (Chabreck 1972, Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority 1998).

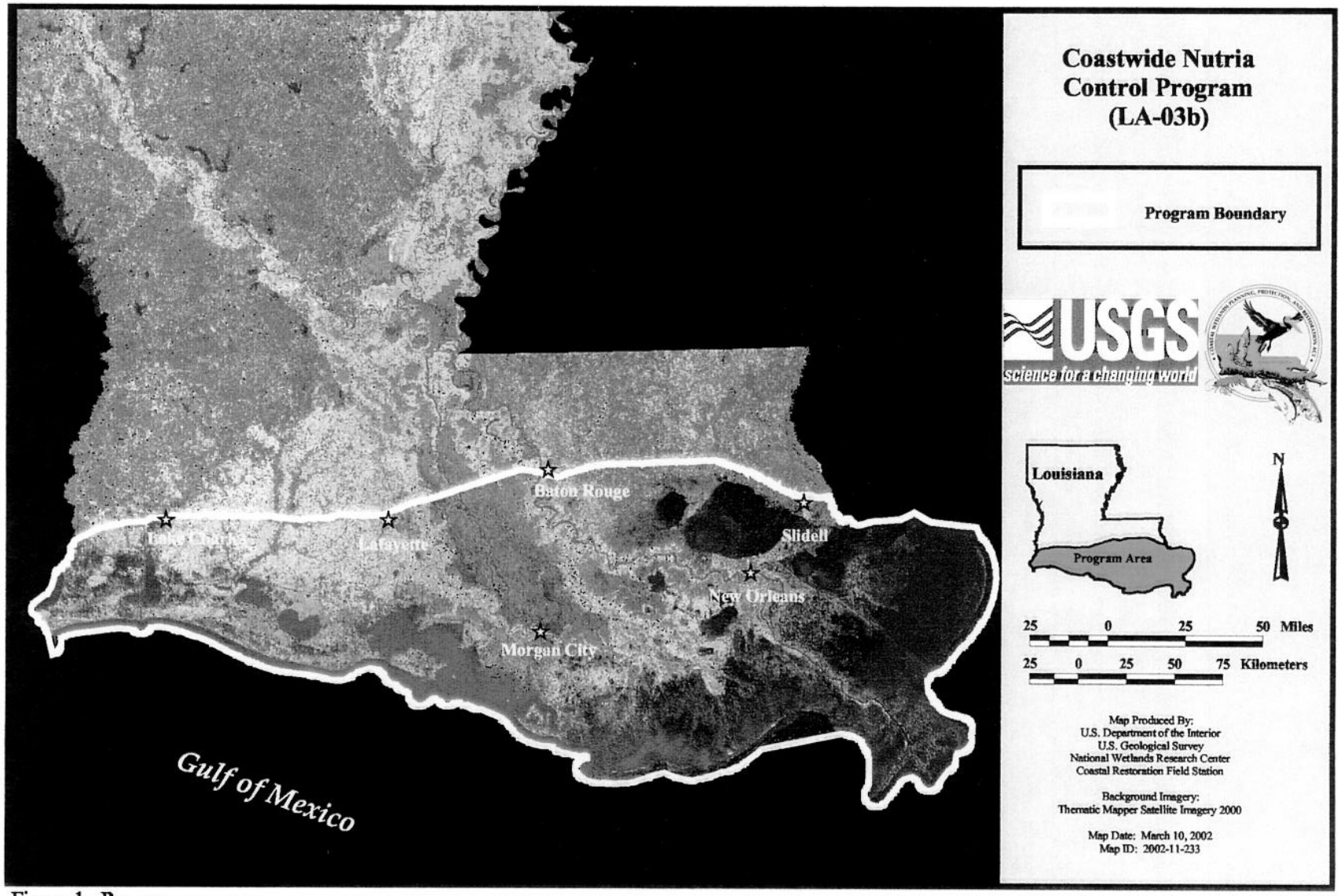

Figure 1. Program area map.

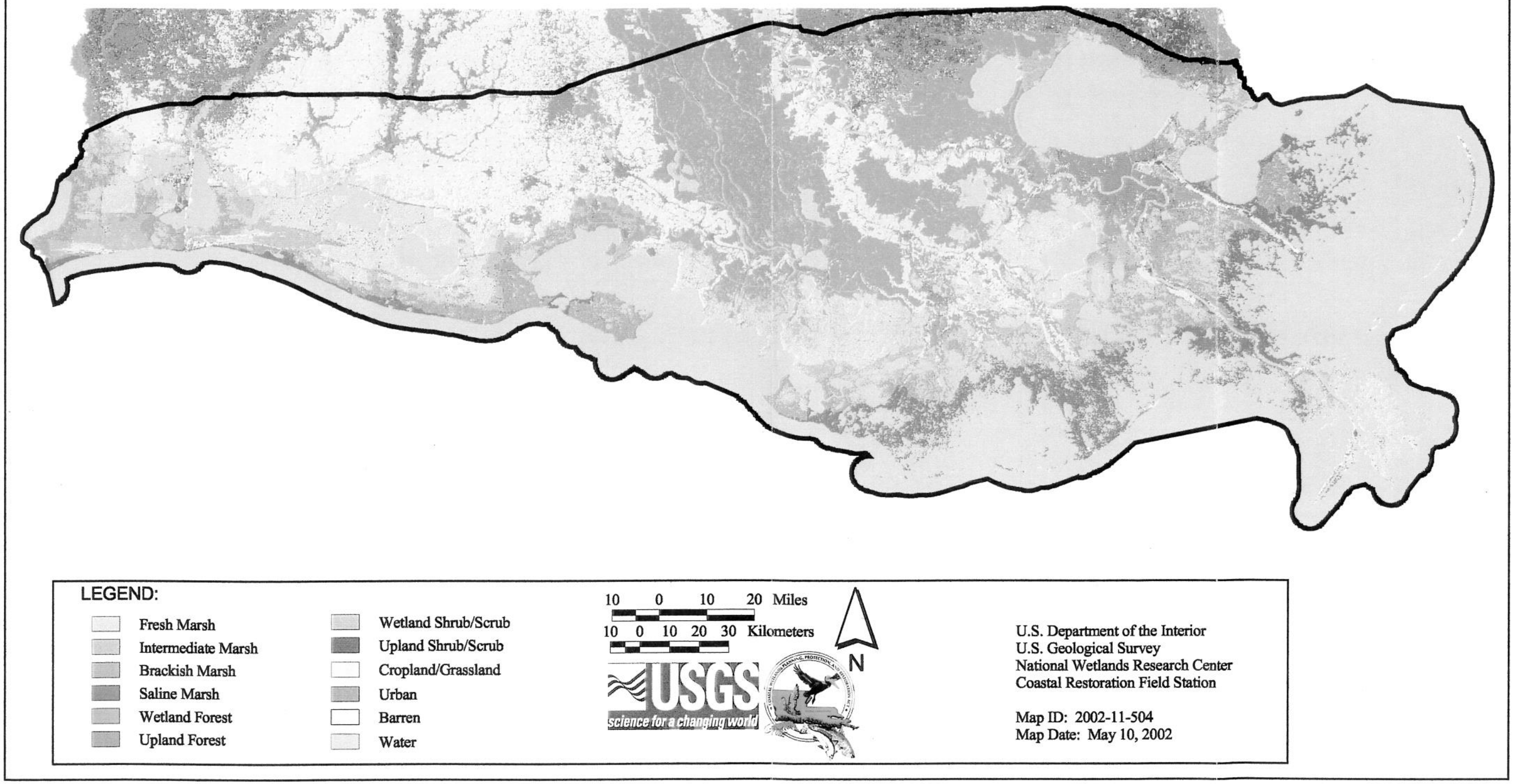

Figure 2. Predominant land uses and habitat types in the Program area, based on data from Hartley, et. al (2000), modified by U.S. Geological Survey (2002).

Intermediate Marsh

There are approximately 345,000 acres of emergent intermediate marsh in the Program area. Typical emergent vegetation is marshhay cordgrass, deer pea, bulltongue, Walter's millet, bullwhip, sawgrass, roseau, seashore paspalum, and waterhyssop (Linscombe et al. Undated, Chabreck 1972). Intermediate marsh salinity typically ranges from 2 to 5 parts per thousand (Chabreck 1972, Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority 1998).

Brackish Marsh

There are approximately 691,000 acres of emergent brackish marsh in the Program area. Typical emergent vegetation is marshhay cordgrass, Olney threesquare bulrush, saltgrass, smooth cordgrass, and black needlerush (Linscombe et al. Undated, Chabreck 1972). Brackish marsh salinity typically ranges from 4 to 15 parts per thousand (Chabreck 1972, Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority 1998).

Saline Marsh

There are approximately 363,000 acres of emergent saline marsh in the Program area. Typical emergent vegetation is smooth cordgrass, marshhay cordgrass, black needle rush, saltwort, and saltgrass (Linscombe et al. Undated, Chabreck 1972). Saline marsh salinity typically equals or exceeds 12 parts per thousand (Chabreck 1972, Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority 1998).

Submerged and Floating-Leafed Aquatic Vegetation

Within the marsh zones described above, many ponds and lakes support submerged aquatic vegetation (SAV) and/or floating-leafed aquatic vegetation. Within the fresh zone, common species include coontail, hydrilla, elodea, pondweeds, wild celery, fanwort, American lotus, water-hyacinth, and duckweeds. Within the intermediate zone, common species include southern naiad, Eurasian watermilfoil, and wigeongrass. Within the brackish zone, wigeongrass is abundant. Submerged or floating-leafed aquatic vegetation is rare in open water areas of the saline zone (Linscombe et al. Undated, Chabreck 1972).

Wetland Forest

There are approximately 1,762,000 acres of wetland forests in the Program area. Three major communities of wetland forest in the Program area include swamp forest, bottomland forest, and pine flatwood forest. Swamp forest exists where there is little or no salinity and minimal daily tidal action, and common tree species include baldcypress, water tupelo, swamp red maple, and buttonbush (Craig et al. 1987). Bottomland hardwoods exist primarily in broad floodplains and distributary ridges of the Atchafalaya River and on the distributary ridges of the Mississippi River. Common tree species include sugarberry, water oak, live oak, nuttall oak, overcup oak, bitter pecan, black willow, American elm, swamp red maple, boxelder, green ash, and baldcypress (Craig et al. 1987). Pine flatwoods within the Program area are

generally found on poorly drained flats and depressional areas in the "Florida Parishes" (Smith 1996). Common tree species include slash pine, longleaf pine, water oak, laurel oak, sweet bay, and sweetgum.

Upland Forests

There are approximately 252,000 acres of upland forests in the Program area. Three major communities of upland forest in the Program area include chenier/maritime forest, mixed hardwood forest, and mixed pine-hardwood forest (Craig et al. 1987). Chenier/maritime forest occurs on abandoned beach ridges composed primarily of sand and shell; common tree species include live oak, sugarberry, swamp red maple, sweetgum, and water oak. Mixed hardwood forest occurs adjacent to small stream floodplains in uplands protected from fire; common tree species include American beech, southern magnolia, white oak, Shumard oak, and swamp white oak. Mixed pine-hardwood forest occurs on moist sites in the upper coastal area; common tree species include loblolly pine, sweetbay, southern magnolia, and red bay.

Scrub-Shrub

There are approximately 259,000 acres of scrub-shrub habitat in the Program area. Scrub-shrub habitat is found along bayou ridges and on dredged-material spoil banks, and is typically bordered by marsh at lower elevations and by developed areas, cypress-tupelo swamp, or bottomland hardwoods at higher elevations. Typical scrub-shrub vegetation includes elderberry, wax myrtle, buttonbush, swamp red maple, Chinese tallow-tree, marsh elder, and eastern baccharis.

Cropland/Grassland

There are approximately 1,791,000 acres of cropland/grassland in the Program area. Predominant crops include sugarcane (about 440,000 acres), rice (about 306,000 acres) soybeans (about 72,000 acres), and hay/grass (about 58,000 acres) (Louisiana State University Agricultural Center, Louisiana Cooperative Extension Service, 2002).

Urban

There are approximately 468,000 acres of urban area in the Program area.

Barren

There are approximately 24,000 acres of barren area in the Program area. Barren areas consist primarily of exposed, unvegetated (less than 25 % vegetation), areas typically associated with rivers, streams, lakes, ponds, and impoundments.

Water

There are approximately 6,183,000 acres of water in the Program area, including the Gulf of Mexico, coastal bays and lakes, lagoons, ponds, impoundments, rivers and streams.

Fish and Wildlife Resources

Emergent wetlands and open water in the Program area provide important habitat for a multitude of ecologically, recreationally, and commercially important fish and wildlife species. The dynamic and highly productive ecosystems of coastal marshes provide valuable detrital material and nutrients that nourish primary producers, zooplankton, benthic organisms, and nekton, which are crucial to the food web. Shallow open water areas provide nursery habitat for a variety of aquatic organisms. Wetland wildlife species are afforded food, cover, nesting, and resting habitat by emergent marsh and open water areas.

Freshwater fish, saltwater fish, and marine invertebrate scientific names are presented in Appendix B. Within the Program area, there is suitable habitat for freshwater fishes such as largemouth bass, black crappie, bluegill, red-ear sunfish, warmouth, blue catfish, channel catfish, freshwater drum, bowfin, and gar. Program area wetlands provide suitable habitat for estuarine-dependent fishes and shellfish such as brown shrimp, white shrimp, Atlantic croaker, Gulf menhaden, blue crab, southern flounder, black drum, red drum, striped mullet, and spotted seatrout (Gosselink 1984, Conner and Day 1987). Recreational fishing activity in the project area is centered on spotted seatrout, red drum, Atlantic croaker, southern flounder, white shrimp, brown shrimp, and blue crab (Hankla 1982, Gosselink 1984, Conner and Day 1987).

Scientific names of reptiles, amphibians, birds, and mammals are presented in Appendix C. U.S. Fish and Wildlife Service, Ecological Services (1998) described the wildlife resources in the coastal portion of the Program area as follows:

> Reptiles are most abundant in fresh and low-salinity coastal wetlands, as well as in cypress swamps. Common species include the western cottonmouth, water snakes, mud snake, speckled kingsnake, ribbon snakes, rat snakes, red-eared turtle, common snapping turtle, alligator snapping turtle, mud turtles, and softshell turtles. Fresh, intermediate and brackish marshes support large populations of the American alligator. Amphibians commonly found include the bullfrog, pig frog, bronze frog, leopard frog, cricket frogs, tree frogs, chorus frogs, three-toed amphiuma, sirens, and several species of toads. In brackish and saline marshes, reptiles are limited primarily to the American alligator and the diamond-backed terrapin, respectively.
>
> Many species of birds utilize coastal marshes, including large numbers of migratory waterfowl. Puddle ducks are most abundant in fresh and intermediate marshes. Because of the extensive waterfowl use, marshes of the Louisiana coastal zone have been identified as a nationally important waterfowl wintering area. Brackish marshes having abundant submerged aquatic vegetation may also support large numbers of puddle ducks. Puddle ducks include mallard, gadwall, Northern pintail, blue-winged teal, green-winged teal, American widgeon, wood duck, and Northern shoveler. The mottled duck also utilizes coastal marshes year-round. Diving ducks prefer larger ponds, lakes, and open water areas. Common diving duck species include lesser scaup, canvasback, redhead, ring-necked duck, red-breasted merganser, common merganser, and hooded merganser. The lesser snow goose and

white-fronted goose also utilize coastal marshes. Other migratory birds found in coastal marshes include the American bittern, least bittern, king rail, clapper rail, sora, American coot, common moorhen, purple gallinule, and common snipe.

Marshes and mudflats provide habitat for wading birds and shorebirds. Common wading birds include the little blue heron, great blue heron, green heron, yellow-crowned night heron, black-crowned night heron, great egret, snowy egret, cattle egret, reddish egret, white-faced ibis, white ibis, glossy ibis, and roseate spoonbill. Water and shorebirds include the killdeer, American avocet, black-necked stilt, American oystercatcher, various species of sandpipers, white pelican, herring and laughing gulls, and several tern species. Other common birds include the neotropic cormorant, boat-tailed grackle, red-winged blackbird, seaside sparrow, belted kingfisher, and sedge wren.

Forested wetlands and scrub-shrub areas provide habitats for songbirds such as the yellow-billed cuckoo, northern parula, yellow-rumped warbler, prothonotary warbler, white-eyed vireo, Carolina chickadee, and tufted titmouse. Common nesters on elevated areas throughout the coastal marshes include orchard oriole, Eastern kingbird, and common yellowthroat. These areas also provide important resting and feeding areas for Neotropical migrant species such as rose-breasted grosbeak, indigo bunting, and Kentucky warbler. Other avian species found in forested wetlands include the northern flicker, brown thrasher, white-eyed vireo, belted kingfisher, loggerhead shrike, pileated woodpecker, red-headed woodpecker, common grackle, common crow, and mockingbird. Forested habitats and associated waterbodies also support habitat for raptors such as osprey, red-tailed hawk, red-shouldered hawk, northern harrier, American kestrel, Mississippi kite, screech owl, great horned owl, and barred owl. Wading-bird nesting colonies typically occur in cypress swamp and scrub-shrub habitat. Some species found in nesting colonies include great egret, black-crowned night-heron, yellow-crowned night-heron, great blue heron, little blue heron, tricolored heron, cattle egret, snowy egret, white ibis, white-faced ibis, glossy ibis, anhinga, and roseate spoonbill. Many waterfowl species also are found in forested wetlands and adjacent waterbodies.

Mammals associated with coastal marshes and forested wetlands include eastern cottontail, gray and fox squirrels, and southern flying squirrel. Stable populations of swamp rabbit and white-tailed deer are found in the marshes. Furbearers include muskrat, nutria, river otter, mink, and raccoon. Other mammal species found in forested wetlands include striped skunk, coyote, Virginia opossum, bobcat, armadillo, gray fox, and red bat. Small mammals include the cotton rat, marsh rice rat, white-footed mouse, eastern wood rat, harvest mouse, and least shrew.

Threatened and Endangered Species

Federally-listed threatened (T) and endangered species (E) that occur within the Program area and within the same habitats occupied by nutria include the bald eagle (T) and American alligator (T).

Within the Program area there are over 150 active bald eagle nests (LDWF, Fur and Refuge Division, 2002). Bald eagles typically nest in baldcypress trees near fresh or intermediate marshes or open water in the southeastern parishes of Louisiana. Areas with high numbers of nests include the Lake Verret Basin south to Houma, the marsh/ridge complex from Houma to Bayou Vista, the north shore of Lake Pontchartrain, and the Lake Salvador area. In addition to the nesting birds, there is a large number of immature and non-nesting adult bald eagles that inhabit the Program area, perhaps yielding a total of over 500 individual birds (T.J. Hess, 2002, personal communication). Many individual birds and many nests occur in close proximity to known nutria concentrations (R.G. Linscombe, 2002, personal communication; T.J. Hess, 2002, personal communication). Major threats to the bald eagle include habitat alteration, human disturbance, and environmental contaminants including organochlorine pesticides and lead (U.S. Fish and Wildlife Service, Ecological Services 1998).

American alligator nest densities for coastal marsh habitats in Louisiana for 1997-2001 averaged 68 acres per nest in fresh marsh, 78 acres per nest in intermediate marsh, and 182 acres per nest in brackish marsh (LDWF, Fur and Refuge Division, Alligator Management Program, 2002).

Other listed species which are observed within the Program area, but generally not within the same habitats occupied by nutria, include the Louisiana black bear (T), several sea turtle species (T/E), the brown pelican (E), and the piping plover (T).

Migratory Bird Protection

Pursuant to Executive Order 13186 of January 10, 2001, all federal planning efforts are required to address protection of migratory bird habitat. As identified in the previous subsection of this document, he Program area contains extensive acreage of habitat that important to migratory birds.

Essential Fish Habitat

Pursuant to the Magnusun-Stevens Fishery Conservation and Management Act, the Gulf of Mexico Fishery Management Council (Council) has identified essential fish habitat (EFH) for those species managed under its fishery management plans (National Marine Fisheries Service, Habitat Conservation Division 2002). Federally managed species for which the Council has designated EFH in the Program area, their life stages, and EFH categories that could potentially be impacted by the Program are presented in Table 1. Additionally, Council-managed species (such as mackerels, red drum, snappers, and groupers) and highly migratory species (such as billfish and sharks) feed upon estuarine-dependent species (such as spotted seatrout, gulf menhaden, striped mullet, and blue crab) that are also supported by Program area wetlands.

Table 1. Federally-managed species for which the Council has designated Essential Fish Habitat in the Program area, their life stages, and EFH categories that could potentially be impacted by the Program (National Marine Fisheries Service, Habitat Conservation Division 2002; R. Hartman, 2002, personal communication).

SPECIES	LIFE STAGE	SYSTEM	ESSENTIAL FISH HABITAT
Brown shrimp	postlarvae/juvenile	estuarine	marsh edge, SAV, tidal creeks, inner marsh,
	subadults	estuarine	mud bottoms, marsh edge
White Shrimp	postlarvae/juvenile	estuarine	marsh edge, SAV, marsh ponds, inner marsh
	subadults	estuarine	marsh edge, SAV, marsh ponds, inner marsh
Red drum	postlarvae/juvenile	estuarine	SAV, estuarine mud bottoms, marsh/water interface
	subadults	estuarine	mud bottoms
	adults	estuarine	Gulf of Mexico and estuarine mud bottoms
Spanish mackerel	juvenile	estuarine	Estuaries
Cobia	larvae	estuarine	Estuaries
Bluefish	postlarvae/juvenile	estuarine	Estuaries

Cultural Resources

Archaeological records housed at the Louisiana Department of Culture, Recreation, and Tourism (LCRT) indicate that a number of cultural resource sites (pre-historic and historic) occur throughout the Program area. Many sites are eligible for inclusion in the National Register of Historic Places, many are not eligible, and many sites have not been surveyed to determine eligibility.

Economic and Recreational Resources

The economy of coastal Louisiana is supported by oil and gas production, fisheries production, petrochemical processing and manufacturing, navigation related industries, agricultural commodities, aquaculture, tourism, and recreation (Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority 1998). The privately owned Louisiana Offshore Oil Port offloads approximately 10-13% of the nation's imported crude petroleum. About 14,000 miles of onshore and 2,000 miles of offshore pipelines are located in coastal Louisiana. Louisiana handles a nation-leading over 450 million tons of cargo each year through six deep-draft ports, all of which are located within the Program area. The Louisiana Sea Grant College (1998) estimated the value of Louisiana's coastal infrastructure at over $48 billion.

U.S. Department of Interior, Fish and Wildlife Service (1997) estimated that 1.2 million Louisianians enjoy the outdoors and reported that 105,000 migratory bird stamps were sold in 1996. Louisiana Coastal Wetlands Conservation and Restoration Task Force and the

Wetlands Conservation and Restoration Authority (1998) cited the following LDWF statistics: 1) In 1997, there were 540,000 combination freshwater and saltwater recreational fishing licenses sold. 2) In 1995, there were approximately 60,000 nearshore and inland saltwater charter fishing trips. 3) In 1994, there were 275,000 registered boats, of which 18% were registered in six coastal parishes contiguous to Lake Pontchartrain.

For the parishes partly or fully located in the Program area, the value of agriculture and other natural resources for 2001 totaled over $ 1.3 billion (Louisiana State University Agricultural Center, Louisiana Cooperative Extension Service 2002). The 2001 values for selected categories include: forestry - $87 million; crops (excluding forestry) - $587 million; fur animals - $306,000; fish and wildlife (excluding fur) - $397 million; animals (excluding fur and other fish and wildlife) - $263 million.

PROBLEMS AND FORECASTED CONDITIONS

Brief History of Nutria and Nutria Harvest in Louisiana

Nutria, native to South America, is an introduced and invasive semi-aquatic rodent in coastal Louisiana resulting from escapes and possible releases from nutria farms in the 1930s. During the mid-1950s populations of common muskrat were declining, nutria had little fur value, and nutria were causing serious damage in rice fields in southwestern Louisiana and sugarcane fields in southeastern Louisiana. In 1958, the Louisiana Legislature placed the nutria on the list of unprotected wildlife and created a $0.25 bounty payment for every nutria killed in 16 south Louisiana parishes, but funds for the bounty were never appropriated. Placement of the nutria on the list of unprotected wildlife did not resolve the problems they were causing (Mouton et al. 2001).

During the early 1960's, a market for nutria fur developed, and by 1962, over one million pelts were being utilized annually in the German fur trade. In 1965, the state legislature returned the nutria to the protected list. From the 1962-63 trapping season through the 1981-82 trapping season the nutria harvest in Louisiana remained at over 1 million annually and the price paid to trappers rose throughout that period, reaching as high as $8.19 per animal (Figure 3) (Mouton et al. 2001).

Due to several mild winters in Eastern Europe, a market shift from fur to leather, and anti-trapping sentiment, the fur market began changing during the early 1980s (R.G. Linscombe, 2002, personal communication). From the 1982-83 trapping season through the 1996-97 season prices remained below $4.00 per animal and often below $3.00 per animal. From the 1981-82 season through the 1987-88 season the nutria harvest remained below 1 million, with the exception of 1984-85 when the harvest reached about 1.2 million. Since the 1988-89 season, the annual harvest has not exceeded 400,000. The peak harvest in the last decade (359,232) occurred in the 1997-98 season when the price per animal rose to $5.19. That pronounced price increase and resultant harvest was attributed to a strong but temporary demand for nutria pelts in Russia. After the collapse of the Russian economy and devaluation of the Russian rubble in 1999, the market for nutria fur resumed its downward trend. Due to a

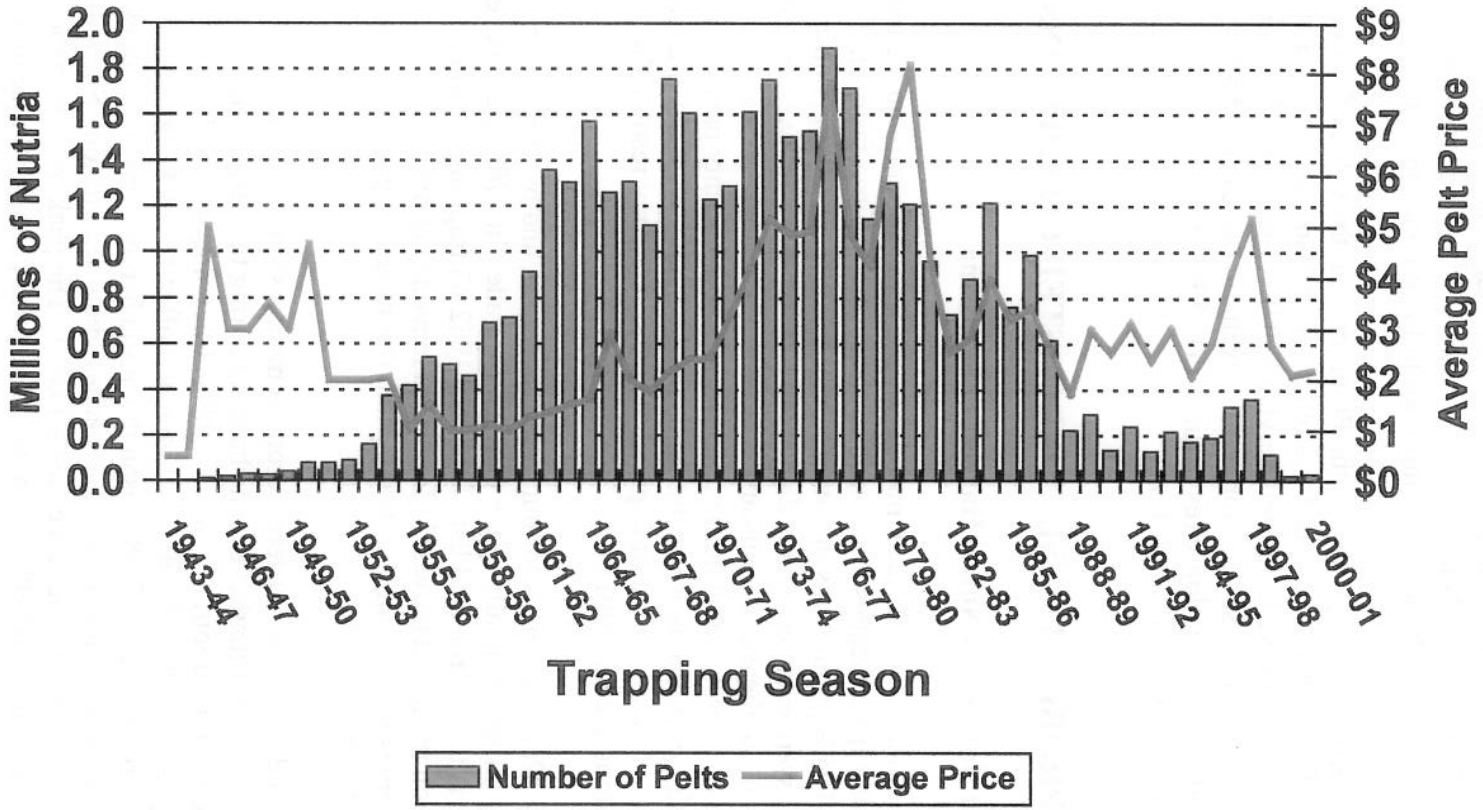

Figure 3. Annual nutria harvest and average price of nutria from 1965 to 2001(Mouton et al. 2001).

lack of demand for nutria pelts, the harvest during the 1999-2000 trapping season decreased to 20,110, by far the lowest nutria harvest on record since the mid 1950s (Mouton et al. 2001).

Extent and Location of Nutria Herbivory Damage

With declining nutria harvests, reports of marsh vegetation damage from land managers became common by 1987 and 1988 (Linscombe and Kinler 1997). Limited aerial flights by LDWF confirmed that damage was occurring, but the severity, distribution, and duration of the damage was unknown. The first formal nutria herbivory damage aerial survey was funded in 1993 by the Barataria-Terrebonne National Estuary Program (BTNEP); the area surveyed was located between the Mississippi and Atchafalaya Rivers – namely the Barataria and Terrebonne basins. This survey was repeated in 1996, again funded by BTNEP. During the December 1993 survey, 90 damaged sites were observed resulting in an estimate that 60,000 acres of marsh were impacted across the study area; the term impact comprising a range from heavy grazing to converted to open water. In 1996, a total of 157 sites were observed resulting in an estimate that 80,000 acres of marsh were impacted across the study area. Of all the 1993 sites evaluated again in 1996, only 9% showed any vegetative recovery.

The first coastwide nutria herbivory aerial survey was conducted in 1998, with subsequent coastwide surveys in 1999, 2000, and 2001, all as part of the Nutria Harvest and Wetland Demonstration Program, a program funded by CWPPRA (Mouton et al 2001). Survey results for the coastwide surveys are presented in Table 2 and Table 3.

In 2001, parishes experiencing the greatest amount of nutria herbivory impact (heavy grazing to converted to open water) were Terrebonne Parish (11,703 acres or 53 %), Jefferson Parish (4,647 acres or 21 %), Plaquemines Parish (2,252 acres or 10 %), and Lafourche Parish (1,433 acres or 6 %). Smaller amounts of impacted marsh were located in St. Bernard, St. John, St. Charles, St. Tammany, and Orleans Parishes (Table 2). The 2001distribution of nutria herbivory impact among marsh types was as follows: fresh marsh - 10,554 acres or 48 %; intermediate marsh - 7,560 acres or 34 %; brackish marsh - 4,025 acres or 18 % (Table 3). Because about one fourth of the study area can be seen along transects, observed acres should be multiplied by four to estimate parish-wide or coastwide nutria impact.

The surveyors also classified the age of impact (current, recent, or old) and condition of impact (recovered, recovering, or not recovering) (Mouton et al. 2001). During the 2001 survey, 2,342 acres were classified as recovered; 12,871 acres were classified as old impact sites that were recovering; and 8,531 acres were classified as old impact sites that were not recovering. It was also determined that 4,726 acres of marsh recorded as impacted in previous years had converted to open water by 2001. Because about one fourth of the study area can be seen along transects, observed acres should be multiplied by four to estimate coastwide acreages.

Table 2. Number of sites and acres impacted by nutria (heavy grazing to converted to open water) along transects, reported by Parish in coastal Louisiana in 1998, 1999, 2000 and 2001 (Mouton et al. 2001).

PARISH	1998		1999		2000		2001	
	Number of		Number of		Number of		Number of	
	Sites	Acres	Sites	Acres	Sites	Acres	Sites	Acres
Terrebonne	69	10,700	62	11,101	64	12,887	57	11,703
Lafourche	24	5,041	22	5,166	10	3,552	8	1,433
Jefferson	22	4,212	21	5,109	22	5,314	21	4,647
Plaquemines	16	1,462	19	2,920	18	2,079	20	2,252
St. Charles	9	975	8	910	4	660	7	841
Cameron	9	720	4	665	2	8	*	*
St. Bernard	7	280	5	560	5	560	6	563
St. John	6	95	3	100	1	50	*	*
Iberia	2	125	1	85	0	0	*	*
St. Tammany	3	330	4	690	4	769	3	600
Orleans	0	0	1	50	1	50	2	100
St. Mary	2	10	0	0	1	10	*	*
Vermilion	1	10	0	0	0	0	*	*
Total Along Transects	170	23,960	150	27,356	132	25,939	124	22,139
Extrapolated Total Coastwide **		95,840		109,424		103,756		88,556

* Parishes not surveyed in 2001due to funding limitations and low occurrence of nutria impact in previous years.

** Because about one fourth of the study area can be seen along transects, observed acres is multiplied by four to estimate the coastwide nutria impact.

Table 3. Number of sites and acres impacted by nutria (heavy grazing to converted to open water) along transects, reported by marsh type in coastal Louisiana in 1998, 1999, 2000 and 2001 (Mouton et al. 2001).

MARSH TYPE	1998		1999		2000		2001	
	Number of		Number of		Number of		Number of	
	Sites	Acres	Sites	Acres	Sites	Acres	Sites	Acres
Brackish	30	5,126	31	5,569	29	5,058	28	4,025
Fresh	85	8,666	73	9,966	62	11,112	59	10,554
Intermediate	55	10,168	46	11,821	41	9,769	37	7,560
Saline*								
Total Along Transects	170	23,960	150	27,356	132	25,939	124	22,139
Extrapolated Total Coastwide **		95,840		109,424		103,756		88,556

* Due to low occurrence of nutria in saline marsh, this marsh type is not surveyed.

** Because about one fourth of the study area can be seen along transects, observed acres is multiplied by four to estimate the coastwide nutria impact.

Forms of Nutria Herbivory Damage and Recovery Observations

Nutria feeding activity can effect the marsh in a number of ways and to varying degrees (R. G. Linscombe, 2002, personal communication). In some cases, nutria activity resembles grazing of aboveground plant parts with no, or only minor, disturbance to the marsh surface. This type of activity has been detected by installing nutria exclosures that protect small areas from nutria grazing (Shaffer et al. 1992, Taylor et al. 1994, Evers et al. 1998). Vegetation exposed to nutria grazing remains low and "clipped". Within the exclosure, vegetation grows quickly, attaining heights of two to three feet within a few weeks (Figure 4). While Visser et al. (1999) were unable to confirm it with available data form the literature, there is an existing theory that nutria grazing can convert "thick mat floating fresh marsh" vegetated with maidencane to "thin mat floating fresh marsh" vegetated with spike rush and pennywort. The "thin mat floating marsh" typically experiences a gradual conversion to open water and is more susceptible to irreparable damage from storms (R. G. Linscombe, 2002, personal communication).

Another observed form of nutria activity is a complete denudation of all aboveground plant material, yielding the appearance of a "bare field" (Figure 5) followed by one of two scenarios (R.G. Linscombe, 2002, personal communication). In fresh marsh habitats, the impacted sites will typically revegetate naturally, provided that other environmental factors are favorable (suitable water level, lack of storm activity). However, in brackish marsh habitats or where other environmental factors are not favorable, the "bare field" sites may remain unvegetated for an unpredicatble amount of time, possibly recovering, partially recovering, or converting to open water.

Figure 4. Effect of grazing by nutria is illustrated by placing a wire exclosure to protect a small area of marsh. Photograph courtesy of LDWF.

Figure 5. Example of nutria damage where all aboveground plant material has been denuded. Photograph courtesy of LDWF.

Most problematic is the form of nutria activity where the nutria's surface feeding activity is accompanied by considerable digging and feeding on the plant roots (R.G. Linscombe, 2002, personal communication) (Figure 6). This type of activity is most prevalent in stands of Olney threesquare bulrush, an intermediate and brackish marsh plant. Recovery is hampered by enhanced tidal activity associated with substrate disturbance, removal of disturbed substrate by tidal activity, damaged root systems, and the general lack of a seed bank in brackish marsh. The majority of sites recorded by Mouton et al. (2001) as converted to open water resulted from this scenario.

Figure 6. Example of nutria damage where considerable digging and feeding on the plant roots has occurred. Photograph courtesy of LDWF.

Forecasted Marsh Loss Due to Nutria Herbivory

During the 2001 nutria damage survey (Mouton et al. 2001), the surveyors revisited previously identified nutria damage sites and determined the acreage of sites (by habitat type) that had been converted to open water by nutria. The CWPPRA Environmental Work Group (CWPPRA EnvWG) (2001) forecasted the 20-year marsh loss due to nutria herbivory. Because about one fourth of the study area can be seen along transects, observed converted acres are multiplied by four to yield a total estimate of acreage converted to open water by nutria. Because these sites have been tracked for up to eight years, that total estimate was divided by eight to yield an annual rate of acreage conversion. This annual rate was multiplied by 20 to forecast the total acreage that would be converted over the 20-year project life (Table 4).

Table 4. CWPPRA EnvWG (2001) 20-year forecast of marsh acres converted to open water by nutria.

Marsh Type	ACRES CONVERTED TO OPEN WATER			
	Observed in 2001	2001 Extrapolated Total (Observed X 4)	Annual Conversion Rate (2001 Extrapolated / 8)	Extrapolated over 20 Years (Annual Rate X 20)
Fresh	25	100	12.5	250
Intermediate	1,910	7,640	955	19,100
Brackish	2,741	10,964	1,370.5	27,410
Total	4,676	18,704	2,338	46,760

The CWPPRA EnvWG (2001) acknowledged that this forecast was very conservative for the following reasons:

1) Only two of the sites took eight years to convert to open water, several took five or six years to convert, and a few took only one to three years to convert; the "average" rate of conversion was 4.7 years.
2) In addition to 4,676 acres that were classified as converted to open water by 2001, another 4,175 acres were classified in 2001 as "not recovering". It could be argued that these acres should be extrapolated and included in the 20-year forecast (4,175 X 4 / 8 X 20 = 41,750 acres).
3) The extrapolation that only 250 acres of fresh marsh would be converted over the project life is due to the current tendency of the fresh marsh sites to revegetate after nutria populations shift locations. However, it has been theorized that nutria herbivory in floating marsh areas are causing a conversion from "thick mat" to "thin mat" floating marshes; such conversions render these marshes much more susceptible to other environmental factors, including storm damage. Additionally, as the floating mat gets thinner, it is very uncertain whether, or for how long, the mat can withstand recurring nutria denudation.

SCOPE OF THE PROJECT PLAN/EA

Scoping of Concerns

Development of the proposed program, selection of the program for funding, and development of this Project Plan and Environmental Assessment resulted from the recognition that nutria herbivory damage has reached an unacceptable level, causing significant conversion of emergent marsh to open water, and threatening the stability of the Louisiana coastal ecosystem.

During the scoping process, a range of environmental, economic, and social concerns were analyzed. The concerns determined to be highly significant to decision making are: effectiveness of reducing the extent of nutria herbivory damage and the subsequent

conversion of emergent marsh to open water, impacts on threatened and endangered species, impacts on non-target species, public acceptance, and public safety. Each of these concerns was considered in the analysis of all alternatives. Other factors that might be impacted by alternative solutions were identified, including: recreational resources, floodwater and drainage, mineral resources, migratory bird habitat, Essential Fish Habitat, maintenance or improvement of water quality, land use, trespass, and social and economic concerns. Groundwater, condition of open water areas, preservation of cultural resources, visual resources, prime farmland, transportation, employment, and air quality were considered, but found not relevant to decision making for this project.

FORMULATION, DESCRIPTION, AND COMPARISON OF ALTERNATIVES

Formulation of Alternatives

Genesis Laboratories, Inc., (2002) under contract with LDNR, performed a review of all potential mechanisms to establish population control of nutria in coastal Louisiana. The review of mechanisms was international in scope, and the targeted level of population control was that which would reduce or eliminate nutria herbivory damage to emergent marsh vegetation.

Description of Alternatives

No Action Alternative

The No Action Alternative would consist of traditional fur-market-driven trapping and recreational hunting. No other measures would be planned beyond those already in existence.

Incentive Payment Program Alternative

The Incentive Payment Program Alternative would consist of the payment of $4 per nutria tail to registered program participants to encourage the harvest of up to 400,000 nutria annually from coastal Louisiana (i.e., south of Interstates 10 and 12). The target harvest of 400,000 is proposed because when the historic harvest exceeded 400,000 to 500,000 nutria per year (mid 1960's to mid 1980's) there were virtually no reports of nutria damage (R.G. Linscombe, 2002, personal communication). The target of 400,000 per year versus a higher target was selected because overall nutria population numbers appear to be down in recent years perhaps due to the 1999-2000 drought. The payment of $4 per nutria, added to about $1 to $2 per nutria that a trapper/hunter could receive from a fur processor is an attempt to mimic the price paid to trappers during the 1995-96, 1996-97, and 1997-98 trapping seasons when the most recent significant nutria harvest (average about 350,000) took place (R.G. Linscombe, 2002, personal communication).

Under this alternative, participants would be required to possess a Louisiana Fur Trapping License and have written permission to harvest nutria from a landowner owning property in Louisiana, south of Interstates 10 and 12. Participants would deliver nutria tails to designated collection centers at designated times. Participants would receive a receipt/voucher and be compensated in timely manner. The distribution of the harvest and nutria herbivory damage would be monitored annually. Program adjustments (payment amount, target harvest, etc.) would be made to improve Program effectiveness.

Chemical Control Alternative

Genesis Laboratories (2002) described two sub-alternatives of chemical control: a rodenticide registered for the control of nutria (zinc phosphide) and currently unregistered rodenticides.

The registered use of zinc phosphide is limited to certified pesticide applicators. The use would involve pre-baiting with a carrier such as carrots, sweet potatoes, watermelon rind and/or apples, applying the chemical to the carrier, and distributing the treated carrier throughout the nutria habitat via floating rafts or as ground baits.

Use of currently unregistered rodenticides would require considerable testing and research, and an emergency exemption if warranted or a lengthy approval process.

Incentive-bonus Program Alternative

The Incentive-bonus Program Alternative presented by Genesis Laboratories (2002) is based on work done by Gosling and Baker (1987) and Gosling and Baker (1989). The program would involve paying hunters/trappers a salary to take nutria throughout the program area, and then pay a substantial bonus when nutria are eradicated. The purpose of the bonus would be to prevent the hunters/trappers from providing husbandry to maintain populations for career stability and preclude the hunters/trappers from becoming disinterested as the population declines. An independent monitoring team would be required to verify program success.

Induced Infertility Alternative

The goal of an Induced Infertility Alternative would be to manipulate the nutria birth rate to a point that it would be lower than the death rate (Genesis Laboratories 2002). Genesis Laboratories (2002) presents the potential field utility of several compounds for different species. For nutria, delivery of treated bait via aircraft would have to occur at a minimum of every three months across the nutria habitat.

Chemical Repellents Alternative

Use of the Chemical Repellents Alternative would involve development of an effective repellent as no repellent for broad areas or large populations currently exists, development of an effective adhesive, and repeated application across the nutria habitat.

Revegetation of Nutria Herbivory Damage Sites Alternative

The Revegetation of Nutria Herbivory Damage Sites Alternative would involve development of a vegetative restoration program for nutria damage sites that would include the following activities: a) identifying habitat recovery parameters, b) improving plant propagation of select species, c) increasing the availability of applicable restoration species, d) increasing plant diversity within habitats, and e) developing efficient planting techniques for reestablishing vegetation on large-scale nutria damage sites. Additionally, this Alternative would attempt to identify funding sources to conduct more comprehensive revegetation of sites damaged by nutria herbivory.

Comparison of Alternatives

This section presents a comparison of all alternatives relative to each scoping concern determined to be highly significant to decision making and relative to Essential Fish Habitat.

Effectiveness of Reducing Nutria Herbivory and Subsequent Conversion of Emergent Marsh to Open Water

One component of the No Action Alternative (i.e. fur trapping) has been in place since before nutria herbivory damage became problematic. Nutria harvest numbers for the past several years have been insufficient to control nutria damage. The second component of the No Action Alternative (recreational hunting) was instituted during the 2001-2002 hunting seasons; the number of nutria harvested by recreational hunting was negligible (R.G. Linscombe, 2002, personal communication). The No Action Alternative would not address the ongoing conversion of fresh, intermediate, and brackish marsh to open water which is expected to reach about 47,000 acres over 20 years (CWPPRA EnvWG 2001). The No Action Action Alternative is determined to be ineffective at reducing nutria herbivory damage and the subsequent conversion of emergent marsh to open water.

Of all the control methods it reviewed, Genesis Laboratories, Inc. (2002) ranked the Incentive Payment Program Alternative number one for cost-effectiveness. With news of the potential incentive payment program reaching the public, LDWF has been flooded with inquiries from potential participants; therefore it is anticipated that $4 per tail would be sufficient to generate a considerable harvest (E. Mouton, personal communication). With an anticipated harvest of about 400,000 nutria annually, LDWF estimates that nutria herbivory damage could be reduced by 50% to 80% (R.G. Linscombe, 2002, personal communication; N.Kinler, 2002, personal communication). Using a more conservative reduction estimate of 40%, the CWPPRA EnvWG (2001) estimated that the conversion of fresh, intermediate, and brackish marsh to open water would be reduced by about 15,000 acres over 20 years. Compared to other CWPPRA Priority Project List Eleven projects, the incentive payment program was the most cost-effective project selected by a five-fold margin over the next most cost-effective project. Additionally, the 100,000 acres of nutria impact (heavy grazing to conversion to open water) currently being observed is expected to be significantly reduced and the project would greatly serve to protect significant coastal restoration investments that are being made in areas

where nutria damage is prevalent. This alternative will also be beneficial in coastal swamps where nutria can completely eliminate cypress regeneration.

There is no effective, currently approved chemical control, induced infertility, or chemical repellent product that could be adequately delivered across the vast nutria habitat in coastal Louisiana (over 4 million acres of emergent marsh, wetland forest, and wetland scrub-shrub). The nutria population is too large and too widespread for the Incentive Bonus Program Alternative to be affordable or practicable.

The Revegetation of Nutria Herbivory Damage Sites Alternative would not have any effect on the nutria population numbers, and therefore it would not serve to reduce the ongoing rate of nutria herbivory damage and subsequent conversion of marsh to open water. The utility of this alternative would be to complement a population control alternative by providing the opportunity to restore previously damaged sites.

Impacts on threatened and endangered species

The No Action Alternative would not address the ongoing nutria-hervivory induced conversion of fresh, intermediate, and brackish marsh to open water which is expected to reach about 47,000 acres over 20 years (CWPPRA EnvWG 2001). Such a conversion would reduce the fish and wildlife habitat quality in the Program area, including the habitat for the threatened bald eagle and American alligator. With the No Action Alternative, small mammals (including rabbit, squirrel, and nutria) and some birds (including dove, snipe, rails, and gallinules) would continue to be taken with lead shot. Crippled animals and unretrieved kills present a potential lead-contaminated food source for bald eagles. The potential remains for expended lead shot to be consumed by waterfowl, retained in waterfowl gizzards, and secondarily consumed by bald eagles. Unretrieved white-tailed deer, or deer offal, can contain lead slug or bullet fragments or buckshot, again representing a potential lead-contaminated food source for bald eagles. Additionally, due to extremely low fur prices in recent years, the traditional commercial harvest of nutria in the Program area has been very low (Figure 3); in an attempt to curb the subsequent increased nutria herbivory damage to emergent marsh, some land managers have taken considerable numbers of nutria using .22 caliber rifles (lead bullets), leaving carcasses in the field. Despite the potential availability of a lead-contaminated food source, there have been only two reported cases of lead poisoning mortalities in Louisiana in over 30 years (Franson et. al 1995). However, under a No Action Alternative, and without a reasonable market price for nutria, the taking of nutria with .22 caliber rifles for herbivory control may increase, and with carcasses being left in the field, the availability of a lead-contaminated food source for bald eagles may also increase.

The Incentive Payment Program Alternative would reduce the extent of nutria herbivory and prevent the subsequent conversion of about 15,000 acres of fresh, intermediate, and brackish marsh to open water over 20 years, thereby protecting the fish and wildlife habitat quality in the Program area, including the habitat for the threatened bald eagle and American alligator. However, the U.S. Fish and Wildlife Service (USFWS) has expressed concern about the Incentive Payment Program Alternative because of the possible toxic effect of lead ingested by bald eagles while feeding on nutria left in the field after being taken or wounded with lead

shot (Appendix D).

The basis for this concern can be succinctly explained as follows:

> Bald eagle mortality due to poisoning from ingested lead has been well documented (Pattee et. al 1981, Cohn 1985, Frenzel and Anthony 1989, Craig et. al 1990, Franson et. al 1995, Kramer and Redig 1997). Franson et. al (1995) report that the U.S. Department of Interior has investigated the deaths of more than 4,300 bald and golden eagles over a 30-year period. Lead poisoning was diagnosed in 338 eagles (8% of total) from 38 states, although only two of those eagles were obtained from Louisiana. Cohn (1985) refers to a study at the U. S. Fish and Wildlife Service's National Wildlife Health Laboratory where it was found that about 7% of bald eagles autopsied since 1963 had died of lead poisoning.
>
> Within the Program area, many individual birds and many nests occur in close proximity to known nutria concentrations (R.G. Linscombe, 2002, personal communication; T. J. Hess, 2002, personal communication)
>
> Bald eagles, particularly eagles one to three years old, are known to feed on carrion, including road-killed animals (Gerrard et. al 1988). Summarizing multiple studies from several states and Canada, Mabie et. al (1995) reported that mammals represented a range of 1.3% to 17.0 % of the major food items for nesting bald eagles, including a study of only ten nests in Louisiana where mammals constituted 15.6% of the major food items (Dugoni 1986). Dugoni (1986) reported that muskrats and nutria comprised 83% of the mammalian food items in those ten nests. Miller et. al (2000) reported mammalian occurrence as a food item for bald eagle at just over 8%. Bald eagles are known to feed on muskrat in Maryland (Gerrard et. al 1988) and have been observed carrying nutria into nests in Louisiana (J. Linscombe, 2002, personal communication).
>
> Because the Incentive Payment Program requires the delivery of only a severed tail to receive a payment of $4.00, the original USFWS concern is that participants could take nutria with lead shot or bullets, sever the tail and leave the carcass in trapping/hunting grounds, or that animals could be wounded and not retrieved, and in either case, imbedded lead could be ingested by bald eagles feeding on the dead or wounded nutria.

Since the bald eagle concern was expressed by the USFWS, there has been an exchange of correspondence between the LDWF and the USFWS and several discussions among the USFWS, the LDWF, and the NRCS (Appendix D). That dialogue has now resulted in several revisions to the proposed Incentive Payment Program Alternative that address the bald eagle concern. Features of the Incentive Payment Program Alternative which collectively address the bald eagle concern include:

1. Each participant will be registered. The registration process will include the direct dissemination of information to each participant, including Program Procedures and regulations pertaining to bald eagles and lead poisoning.

2. The LDWF Regulations pertaining to bald eagle and lead poisoning will include the following:

   Nutria may be taken by any legal method except that if taken with a shotgun, steel shot must be used.

   Participants are required to remove carcasses from the trapping/hunting area or, if carcasses are not sold whole, they must be placed in such a manner as to prohibit feeding on the carcasses by birds, including southern bald eagles. Carcasses may be buried, placed in heavy overhead vegetation or concealed by any other means necessary to prevent consumption by birds.

   A complete set of Program Procedures can be found in Appendix E. Complete Regulations can be found in Appendix F.

3. The participant registration process includes identification of the property to be trapped/hunted by each participant. When submitting nutria tails for the incentive payment, each participant will be required to identify the property trapped/hunted, the number and location of origin of animals harvested, method of take, animal retrieval rates, and carcass use or disposal.

4. To determine compliance with take and disposal regulations:

   The LDWF will interview those participants that use firearms to take nutria from within or near areas of high bald eagle concentrations. Should there be any suspicion that lead-shot animals are not being retrieved or are not being placed in such a manner as to prohibit feeding on the carcasses by birds, including bald eagles, an investigation will be made and/or corrective actions will be taken. Corrective action could include removal of a participant from the Program.

   The LDWF will conduct two aerial surveys during the trapping season to determine if participants are complying with regulations. These low-level helicopter surveys will cover the areas of overlap of eagle nests and high nutria densities. In the event of noncompliance, an investigation will be made and/or corrective actions will be taken; corrective action could include removal of a participant from the Program.

Additional factors to be considered in evaluating the potential effect of the Incentive Payment Program on the bald eagle include the anticipated number of nutria to be harvested with a .22 caliber rifle in the proximity of bald eagle nesting and foraging areas, the number of rifle-taken nutria that will not be processed for fur and/or meat, the anticipated compliance with regulations, the number of rifled-wounded nutria that may be left in the trapping/hunting grounds, the likelihood of program-related lead ingestion by eagles, the scientific record associated with lead poisoning, and the potential affect should lead be ingested by bald eagles.

The USFWS and the LDWF have identified the following parishes where the interaction between bald eagle and nutria is likely to be greatest: Terrebonne, Lafourche, St. Mary, Jefferson and St. Charles (Appendix D). With a total Program goal harvest of 400,000, the LDWF anticipates that as many as 350,000 nutria may be harvested in those five parishes. Based on phone conversations between the LDWF and major coastal land managers across Louisiana, the LDWF expects 70% of the nutria to taken with standard trapping techniques, 30% to be taken with .22 caliber rifles, and a negligible number to be taken with shotgun. Therefore, about 105,000 nutria could be taken with .22 caliber rifle.

Based on phone conversations between the LDWF and major coastal land managers across Louisiana, the LDWF anticipates that most participants will deliver taken nutria to fur and/or meat processors to earn an additional $1 to $2 per nutria. The LDWF regulations will require that any carcasses not sold whole must be placed in such a manner as to prohibit feeding on the carcasses by birds, including bald eagles, hence the LDWF anticipates that only a minimal number of nutria carcasses could remain in the trapping/hunting area and potentially available to foraging bald eagles.

Compliance with regulations is anticipated to be high because: 1) all project participants will directly receive a copy of Program Procedures and regulations pertaining to bald eagles and lead poisoning; 2) participants are required to report number and location of origin of animals harvested, method of take, animal retrieval rates, and carcass use or disposal; 3) the LDWF will interview those participants that use firearms to take nutria from within or near areas of high bald eagle nest concentrations, and should there be any suspicion that lead-shot animals are not being retrieved or are not being placed in such a manner as to prohibit feeding on the carcasses by birds, including bald eagles, an investigation will be made and/or corrective actions will be taken; and 4) in the areas of overlap of eagle nests and high nutria densities, the LDWF will conduct two aerial surveys during the trapping season to determine if participants are complying with regulations. In the event of noncompliance, corrective action could include removal of a participant from the Program.

It is anticipated that only a very few rifled-wounded nutria would be left in the trapping/hunting grounds. Rifle harvest is most practicable and efficient from an airboat in fresh to intermediate floating marsh with vegetation that is very low in height. Nutria generally present close range and easy targets. In the event of a missed shot or wounded animal, a second shot (or more) is easily attained due to mobility of the airboat, lack of escape cover, and non-evasiveness of nutria. Rifle-harvest of nutria by LDWF personnel typically yields less than one percent wounded animals (E. Mouton, 2002, personal communication)

Given all the features and factors described above, it is the opinion of the NRCS and the LDWF that the ingestion of lead by bald eagles is not likely under the Incentive Payment Program Alternative. Because of the potential increased availability of lead under the No Action Alternative, the ingestion of lead by bald eagles under the Incentive Payment Program may be even less likely than with the No Action Alternative.

While bald eagle mortality due to poisoning from ingested lead has been well documented in the scientific literature, historically the vast majority of lead poisoning appears to be from

ingestion of lead shot, with only minimal or occasional reference to rifle bullets or fragments (Cohn 1985, Frenzel and Anthony 1989, Craig et. al 1990, Franson et. al 1995, Miller et. al 2000). Pattee et. al (1981) forced-fed lead shot to five bald eagles to determine response to ingested lead; while all five eagles eventually died, the response was highly variable requiring the ingestion of a range of 10 to 156 #4 shot to induce mortality, Additionally, all birds regurgitated the majority of ingested lead. Pattee et. al (1981) stated, "Healthy eagles probably could be expected to regurgitate lead shot and survive occasional exposure."

Under the Incentive Payment Program Alternative, lead associated with the Program will be almost completely unavailable to foraging bald eagles and given the propensity of bald eagles to regurgitate lead demonstrated by Pattee et. al (1981), and the apparent historical lack of eagle lead poisoning in Louisiana, it is the opinion of the NRCS and the LDWF that bald eagles would not likely ingest a quantity of Program-related lead sufficient to adversely affect the species.

The Incentive Bonus Program Alternative would present the same lead-ingestion concerns to the bald eagle as described above and the alternative would be ineffective at protecting fish and wildlife habitat quality.

The Chemical Control Alternative, the Induced Infertility Alternative, and the Chemical Repellent Alternative all carry significant toxicity and other secondary concerns toward the bald eagle and American alligator. Considerable study and testing would be needed to demonstrate that such an alternative would not present such toxicity or secondary impacts, followed by approval for broad scale application. At this time, those alternatives would be ineffective at protecting fish and wildlife habitat quality.

The Revegetation of Nutria Herbivory Damage Sites Alternative would not have any effect on the nutria population numbers, and therefore, as a stand alone alternative, it could have only a very minor positive effect on the bald eagle or American alligator. The utility of this alternative would be to complement a population control alternative and provide the opportunity to restore previously damaged sites, which would have a greater positive effect on those species.

Impacts on non-target species

The No Action Alternative would not address the ongoing nutria herbivory damage and subsequent conversion of fresh, intermediate, and brackish marsh to open water which is expected to reach about 47,000 acres over 20 years (CWPPRA EnvWG 2001). Such a conversion would reduce the fish and wildlife habitat quality in the Program area. With the fur trapping component of the No Action Alternative, there is incidental but insignificant take of non-target species, including mink, raccoon, rabbit, muskrat, and river otter.

The Incentive Payment Program Alternative would reduce the extent of nutria herbivory damage and the subsequent conversion of about 15,000 acres of fresh, intermediate, and brackish marsh to open water over 20 years, thereby protecting the fish and wildlife habitat quality in the Program area. Compared to the No Action Alternative, it is anticipated that the incidental take of non-target species, including mink, raccoon, rabbit, muskrat, and river otter,

will increase, but not to a significant level. Whereas nutria is an introduced species and the anticipated level of nutria harvest will be well less than in past decades, significant species interaction effects are not anticipated. Minor benefits to muskrats are expected by reducing competition for forage.

The Incentive Bonus Program Alternative would present similar incidental take opportunities, but this alternative would be ineffective at protecting fish and wildlife habitat quality.

The Chemical Control Alternative, the Induced Infertility Alternative, and the Chemical Repellent Alternative all carry significant toxicity and other secondary concerns for non-target species. Considerable study and testing would be needed to demonstrate that such an alternative would not present such toxicity or secondary impacts, followed by approval for broad scale application. At this time, those alternatives would be ineffective at protecting fish and wildlife habitat quality.

The Revegetation of Nutria Herbivory Damage Sites Alternative would not have any effect on the nutria population numbers, and therefore, as a stand alone alternative, it could have only a very minor positive effect on non-target species. The utility of this alternative would be to complement a population control alternative and provide the opportunity to restore previously damaged sites, which would have a greater positive effect on those species.

Public acceptance

The residents, recreational users, commercial users, and land managers of coastal Louisiana have become quite concerned about the conversion of emergent marsh to open water and the threat to ecosystem stability due to nutria herbivory. The No Action Alternative is unacceptable to the public.

Because of the long-standing traditions of hunting and trapping in coastal Louisiana and because the nutria is an introduced species, the Incentive Payment Program Alternative has received very favorable acceptance by the public of coastal Louisiana.

Because it is not an affordable or practical alternative, the public is not familiar with the Incentive Bonus Program Alternative. It is anticipated, however, that traditional fur trappers, alligator hunters, and coastal landowners/managers would not favor an attempt to eradicate nutria because of the potential loss of revenue and the uncertainty of the effect on American alligator populations.

Because there is no effective, currently approved chemical control, induced infertility, or chemical repellent products that could be adequately delivered across the vast nutria habitat in coastal Louisiana, the public is not familiar with the Chemical Control Alternative, the Induced Infertility Alternative, or the Chemical Repellent Alternative. It is anticipated, however, that the public would have serious concerns regarding toxicity and other secondary concerns for non-target species.

Based on the long-standing public support for the use of vegetative planting in coastal

restoration activities, there would be strong public support for use of the Revegetation of Nutria Herbivory Damage Sites Alternative as a complement to nutria population control. The public would not support revegetation efforts that would be immediately subject to significant nutria herbivory.

Public Safety

The fur-trapping component of the No Action Alternative would not present any significant public safety concerns. Public safety concerns associated with the recreational hunting component of the No Action Alternative include those that are routinely encountered with any recreational hunting activity.

With the Incentive Payment Program Alternative, fur trapping would not present any significant public safety concerns. With the taking of nutria with a firearm, public safety concerns presented by the Incentive Payment Program Alternative include: 1) routine concerns associated with any recreational hunting activity, and 2) additional concerns brought about by the increased temptation (spurned by the $4 incentive payment) to take a swimming animal on a publicly traveled waterway with a small caliber rifle, perhaps endangering a public boater, hunter, fisherman, etc. This concern will be addressed by requiring program participants to have written permission from a coastal landowner to trap/hunt nutria; a person without permission to trap/hunt a specific tract of land would not be allowed to participate in program by shooting nutria on a public waterway.

Because there is no effective, currently approved chemical control, induced infertility, or chemical repellent product that could be adequately delivered across the vast nutria habitat in coastal Louisiana, there is no way to assess whether the Chemical Control Alternative, the Induced Infertility Alternative, or the Chemical Repellent Alternative would present a public safety concern.

The Incentive Bonus Program Alternative and the Revegetation of Nutria Herbivory Damage Sites Alternative would not present any significant public safety concerns.

Essential Fish Habitat

The No Action Alternative would not address the ongoing nutria herbivory damage and subsequent conversion of emergent marsh (an essential fish habitat) to open water which is expected to reach about 47,000 acres over 20 years (CWPPRA EnvWG 2001). Therefore, the No Action Alternative would allow a substantial decrease in the quality of the project area's Essential Fish Habitat. The Program area's ability to support multiple life stages of Council-managed species (white shrimp, brown shrimp, red drum, Spanish mackerel, cobia, and bluefish) would be significantly reduced. Furthermore, the No Action Alternative would adversely impact estuarine-dependent species (such as spotted seatrout, gulf menhaden, striped mullet, and blue crab) that are preyed upon by other Council-managed species (such as mackerels, red drum, snappers, and groupers) and highly migratory species (such as billfish and sharks).

The Incentive Payment Program Alternative would reduce the extent of nutria herbivory damage and the subsequent conversion of about 15,000 acres of emergent marsh (an essential fish habitat) to open water over 20 years. Therefore, the Incentive Payment Program Alternative would partially protect the quality of the Program area's Essential Fish Habitat. However, because the Incentive Payment Program Alternative will not completely eliminate the loss of emergent marsh, there will be a decrease in the quality of the project area's essential fish habitat over time, albeit at a much slower rate than with the No Action Alternative. The program area's ability to support multiple life stages of Council-managed species (white shrimp, brown shrimp, red drum, Spanish mackerel, cobia, and bluefish) would be partially maintained. Furthermore, the Incentive Payment Program Alternative would beneficially impact estuarine-dependent species (such as spotted seatrout, gulf menhaden, striped mullet, and blue crab) that are preyed upon by other Council-managed species (such as mackerels, red drum, snappers, and groupers) and highly migratory species (such as billfish and sharks).

The nutria population is too large and too widespread for the Incentive Bonus Program Alternative to be affordable or practicable, hence there is no way to assess how this alternative would effect Essential Fish Habitat and Council-managed species.

The Chemical Control Alternative, the Induced Infertility Alternative, and the Chemical Repellent Alternative all carry significant toxicity and other secondary concerns that could affect Essential Fish Habitat and Council-managed species. Considerable study and testing would be needed to demonstrate that such an alternative would not present such toxicity or secondary impacts, followed by approval for broad scale application.

The Revegetation of Nutria Herbivory Damage Sites Alternative would not have any effect on the nutria population numbers, and therefore, as a stand alone alternative, it could have only a very minor positive effect on Essential Fish Habitat and Council-managed species. The utility of this alternative would be to complement a population control alternative and provide the opportunity to restore previously damaged sites, which would have a greater positive effect on those species.

Risk and Uncertainty

With the No Action Alternative, there would be a considerable risk that nutria herbivory damage and subsequent conversion of emergent marsh to open water would continue, and the stability of the Louisiana coastal ecosystem would continue to be uncertain.

The Incentive Payment Alternative offers the greatest opportunity to significantly reduce nutria herbivory damage and subsequent conversion of emergent marsh to open water. The primary uncertanties associated with this alternative include whether the incentive payment of $4 per animal will be sufficient to generate the target annual harvest of 400,000 and whether the target harvest will be sufficient to significantly reduce nutria herbivory damage. Fortunately, monitoring results would be reviewed annually, and if warranted, adjustment in the incentive payment or desirable level of harvest would be made.

Because of the large and widespread nature of the nutria population, the Incentive Bonus Program Alternative would be neither affordable or practicable; hence there would be a considerable risk that nutria herbivory damage and subsequent conversion of emergent marsh to open water would continue, and the stability of the Louisiana coastal ecosystem would continue to be uncertain.

The Chemical Control Alternative, the Induced Infertility Alternative, and the Chemical Repellent Alternative all possess risks and uncertainties associated with toxicity and secondary impacts.

The Revegetation of Nutria Herbivory Damage Sites Alternative would not have any effect on the nutria population numbers, and therefore, as a stand alone alternative, there would be a considerable risk that nutria herbivory damage and subsequent conversion of emergent marsh to open water would continue, and the stability of the Louisiana coastal ecosystem would continue to be uncertain.

Rationale for Selection of the Recommended Plan

Selection of the recommended plan is based on the recognition that without comprehensive management of nutria herbivory damage, the stability of the Louisiana coastal ecosystem is threatened. The recommended plan results from comparison of several alternatives relative to the following concerns: effectiveness of reducing conversion of emergent marsh to open water, impacts on threatened and endangered species, impacts on non-target species, public acceptance, and public safety. The recommended plan addresses a critical need in the Program area and strives to minimize adverse impacts. Implementation of the recommended plan anticipated to cause any long-term, significant, adverse environmental impacts.

CONSULTATION AND PUBLIC PARTICIPATION

During project planning, coordination has been maintained with the following agencies and entities: USFWS, NMFS, EPA, U. S. Army Corps of Engineers, LDNR, LSU Agricultural Center – Cooperative Extension Service, Louisiana Governor's Office for Coastal Activities, parishes and Soil and Water Conservation Districts throughout coastal Louisiana, the Louisiana Landowners Association, and CWPPRA Academic Advisors.

Federal, state, and local agencies, as well as other interested parties were given the opportunity to review and comment on a draft of this document. A copy of the mailing list is available upon request. Comments received and responses to those comments will be provided in Appendix G. Commenting parties will receive a copy of the Finding of No Significant Impact (FONSI) and the Final Plan/EA. Other interested parties will be notified that the FONSI and Final Plan/EA are available upon request.

Project development and selection under the CWPPRA process utilizes input from the public, in addition to local, state, and federal agency input. Public involvement in CWPPRA is achieved through annual public meetings conducted during project development and selection

stages. Landowners in the program area are supportive of the program.

Six public meetings were held to disseminate information and to receive public comment. Those meetings were held in Cameron (June 24, 2002), Abbeville (June 25, 2002), Morgan City (June 26, 2002), Houma (June 27, 2002), Chalmette (July 1, 2002) Harvey (July 2, 2002). The public meeting agenda and a summary of comments received is presented in Appendix H.

RECOMMENDED PLAN

Purpose and Summary

The recommended plan for Comprehensive Management of Nutria Herbivory Damage in Coastal Louisiana is a combination of the Incentive Payment Program Alternative and the Revegetation of Nutria Herbivory Damage Sites Alternative described above.

The Incentive Payment Program Alternative will be accomplished via the Coastwide Nutria Control Program LA-03b (Program) that has been funded under the authority of CWPPRA. The Revegetation of Nutria Herbivory Damage Sites Alternative will be funded under a cooperative agreement between the Louisiana State University Agricultural Center and NRCS and under a grant from NOAA to LDWF.

Plan Objectives

The objectives of the recommended plan are to: 1) eliminate or significantly reduce damage to Louisiana coastal wetlands, including the conversion of marsh to open water, resulting from nutria herbivory; 2) identify techniques to promote revegetation of damaged sites with native species; and 3) identify funding sources to conduct more comprehensive revegetation of sites damaged by nutria herbivory

Plan Measures

Plan measures include: 1) implement an incentive payment program to encourage the harvest of up to 400,000 nutria annually from coastal Louisiana (see Appendix E for program procedures); 2) investigate techniques to promote revegetation of damaged sites with native species; 3) pursue additional funding and/or funding sources to conduct more comprehensive revegetation of sites damaged by nutria herbivory.

Permits and Compliance

All necessary permits and approvals will be obtained before program implementation commences. Applicable federal statutes are shown in Table 5. The proposed action is not expected to cause adverse environmental impacts requiring environmental mitigation.

Estimated Cost

The fully funded, 20-year cost for Coastwide Nutria Control Program, including all aspects of planning, administration, implementation, inspection, and monitoring is estimated at $68.9 million. As of the date of this document, LCWCRTF has approved the federal share of implementation funding for five years (85% of $12.6 million), with additional funding subject to review and approval by the LCWCRTF. See Appendix I for additional detail.

Table 5. Environmental compliance.

STATUTE	COMPLIANCE
Archaeological and Historic Preservation Act	Full
Clean Air Act, as amended	Full
Coastal Barrier Resources Act (PL 97-348; 1982)	Full
Coastal Zone Management Act of 1972, as amended	Full
Endangered Species Act of 1973, as amended	Full
Executive Order 11988, Floodplain Management	Full
Executive Order 11990, Protection of Wetlands	Full
Executive Order 13186, Migratory Bird Protection	Full
Farmland Protection Policy Act	Full
Federal Water Pollution Control Act	Full
National Environmental Policy Act of 1969, as amended	Full*
National Historic Preservation Act of 1966, as amended	Full
Magnuson-Stevens Fishery Conservation and Management Act	Full
Subtitle B, Highly Erodible Land Conservation, and Subtitle C, Wetland Conservation, of the Food Security Act of 1985	Full
Wild and Scenic River Act, as amended	Full

* Full compliance and applicable documentation will be completed prior to implementation.

Monitoring and Adjustment of the Coastwide Nutria Control Program

Pre-program monitoring for the Coastwide Nutria Control Program will consist of a coastwide survey, and associated mapping, to determine the extent and location of nutria herbivory damage. Program implementation monitoring for the Coastwide Nutria Control Program will consist of an annual coastwide survey of nutria herbivory damage, tracking of the number and location of nutria harvested, and associated mapping to determine if the harvest is having an effect on nutria herbivory damage.

A nutria harvest distribution report and a nutria herbivory survey report will be prepared annually and made available to public; supporting data will be made available upon request. Monitoring results will be reviewed annually to determine if any adjustment in the incentive payment or desirable level of harvest is warranted. Results of that review and proposed program adjustments will be presented to the CWPPRA Task Force annually.

CONCLUSION

The United States Department of Agriculture, Natural Resources Conservation Service finds no significant long-term adverse impacts to wetlands, water quality, threatened or endangered species, species managed by Gulf of Mexico Fishery Management Council or their essential habitat, other fish and wildlife resources, recreational or socio-economic resources, or cultural resources associated with Comprehensive Management of Nutria Herbivory Damage in coastal Louisiana, including the Coastwide Nutria Control Program. Specifically, the USDA-NRCS has determined that the Coastwide Nutria Control Program is not likely to adversely affect the bald eagle, a threatened species located in the Program area. By letter dated September 17, 2002, the USFWS has concurred with that determination. Comprehensive Management is expected to protect emergent marsh and encourage the restoration of previously damaged sites. Comprehensive Management will produce net long-term benefits to Program area resources.

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LIST OF PREPARERS

Name	Present Position	Employer
Quin Kinler	Resource Conservationist	Natural Resources Conservation Service
Michael Carloss	Wildlife Biologist	Natural Resources Conservation Service
Jerry Daigle	State Soil Scientist	Natural Resources Conservation Service
Edmond Mouton	Biologist Supervisor	LA Department of Wildlife and Fisheries
Greg Linscombe	Biologist Program Manager	LA Department of Wildlife and Fisheries
Ann Ballard	GIS Specialist	Johnson Controls-- U.S. Geological Survey

APPENDIX A

SCIENTIFIC NAMES OF PLANT SPECIES CITED

SCIENTIFIC NAMES OF PLANT SPECIES CITED

American beech	*Fagus grandifolia*
American elm	*Ulmus americana*
American lotus	*Nelumbo lutea*
baldcypress	*Taxodium distichum*
bitter pecan	*Carya aquatica*
black needlerush	*Juncus roemarianus*
black willow	*Salix nigra*
boxelder	*Acer negundo*
bulltongue	*Sagittaria lancifolia*
bullwhip	*Schoenoplecus californicus*
buttonbush	*Cephalanthus occidentalis*
Chinese tallow-tree	*Sapium sebiferum*
coontail	*Ceratophyllum demersum*
deer pea	*Vigna luteola*
duckweeds	*Lemna* spp.
eastern baccharis	*Baccharis halimifoli*
elderberry	*Sambucus canadensis*
elodea	*Elodea* spp.
Eurasian watermilfoil	*Myriophylum spicatum*
fanwort	*Cabomba caroliniana*
green ash	*Fraxinus pennsylvanica*
hydrilla	*Hydrilla verticillata*
laurel oak	*Quercus laurifolia*
live oak	*Quercus virginiana*
loblolly pine	*Pinus taeda*
longleaf pine	*Pinus palustris*
maidencane	*Panicum hemitomon*
marsh elder	*Iva frutescens*
marshhay cordgrass	*Spartina patens*
nuttall oak	*Quercus nuttallii*
Olney threesquare bulrush	*Schoenoplecus olneyi*
overcup oak	*Quercus lyrata*
pennywort	*Hydrocotyle* spp.
Pickerelweed	*Pontederia cordata*
Pondweeds	*Potamogeton* spp.
red bay	*Persea borbonia*
rice	*Oryza* sp.
roseau	*Phragmites communis*
saltgrass	*Distichlis spicata*
saltwort	*Batis maritima*
sawgrass	*Cladium jamaicense*

seashore paspalum	*Paspalum vaginatum*
Shumard oak	*Quercus shumardii*
slash pine	*Pinus elliottii*
smooth cordgrass	*Spartina alterniflora*
southern magnolia	*Magnolia grandiflora*
southern naiad	*Najas quadalupensis*
soybean	*Glycine* spp.
spike rush	*Eleocharis* spp.
sugarberry	*Celtis laevigata*
sugarcane	*Saccharin* spp.
swamp red maple	*Acer rubrum* var. *drummondii*
swamp white oak	*Quercus michauxii*
sweet bay	*Magnolia virginiana*
Walter's millet	*Echinochloa walteri*
water oak	*Quercus nigra*
water tupelo	*Nyssa aquatica*
water-hyacinth	*Eichornia crassipes*
waterhyssop	*Bacopa monnieri*
wax myrtle	*Myrica cerifera*
white oak	*Quercus alba*
wigeongrass	*Ruppia maritima*
wild celery	*Vallisneria verticullata*

APPENDIX B

SCIENTIFIC NAMES OF FRESHWATER FISH, SALTWATER FISH, AND MARINE INVERTEBRATES CITED

SCIENTIFIC NAMES OF FRESHWATER FISH, SALTWATER FISH, AND MARINE INVERTEBRATES CITED

Atlantic croaker	*Micropogonias undulatus*
bantam sunfish	*Lepomis symmetricus*
black crappie	*Pomoxis nigromaculatus*
black drum	*Pogonias cromis*
blue catfish	*Ictalurus furcatus*
blue crab	*Callinectes sapidus*
bluefish	*Pomatomus saltatrix*
bluegill	*Lepomis macrochirus*
bowfin	*Amia calva*
brown shrimp	*Farfantepenaeus aztecus*
channel catfish	*Ictalurus punctatus*
cobia	*Rachycentron canadrum*
freshwater drum	*Aplodinotus grunniens*
gar	*Lepisosteus* spp.
largemouth bass	*Micropterus salmoides*
pink shrimp	*Penaeus duorarum*
red drum	*Scianenops ocellata*
redear sunfish	*Lepomis punctatus*
southern flounder	*Paralichthys lethostigma*
spanish mackerel	*Scomberomorus maculatus*
spotted seatrout	*Cynoscion nebulosus*
striped mullet	*Mugil cephalus*
warmouth	*Lepomis gulosus*
white crappie	*Pomoxis annularis*
white shrimp	*Litopenaeus setiferus*

APPENDIX C

SCIENTIFIC NAMES OF REPTILES, AMPHIBIANS, BIRDS, AND MAMMALS

SCIENTIFIC NAMES OF REPTILES, AMPHIBIANS, BIRDS, AND MAMMALS

alligator snapping turtle	*Macroclemys temminckii*
American alligator	*Alligator mississippiensis*
American avocet	*Recurvirostra americana*
American bittern	*Botaurus lentiginosus*
American coot	*Fulica americana*
American kestrel	*Falco sparverius*
American pipit	*Anthus rubescens*
American white pelican	*Pelecanus erythrorhynchus*
American wigeon	*Anas americana*
bald eagle	*Haliaeetus leucocephalus*
bank swallow	*Riparia riparia*
barn owl	*Tyto alba*
barn swallow	*Hirundo rustica*
belted kingfisher	*Ceryle alcyon*
black tern	*Childonias niger*
black-bellied plover	*Pluvialis squatarola*
black-crowned night-heron	*Nycticorax nycticorax*
black-necked stilt	*Himantopus mexicanus*
blue-winged teal	*Anas discors*
boat-tailed grackle	*Quiscalus major*
bobolink	*Dolichonyx oryzivorus*
bronze frog	*Rana clamitans*
brown pelican	*Pelecanus occidentalis*
bullfrog	*Rana catesbeiana*
canvasback	*Aythya valsineria*
Caspian tern	*Sterna caspia*
cattle egret	*Bubulcus ibis*
clapper rail	*Rallus longirostris*
cliff swallow	*Hirundo pyrrhonota*
common merganser	*Mergus merganser*
common moorhen	*Gallinula chloropus*
common muskrat	*Ondatra zibethicus*
common nighthawk	*Chordeiles minor*
common snapping turtle	*Chelydra serpentina*
common snipe	*Gallinago gallinago*
common yellowthroat	*Geothlypis trichas*
cotton mouse	*Peromyscus gossypinus*
coyote	*Canis latrans*
eared grebe	*Podilymbus* nigricollis
Eastern mud turtle	*Kinosternon subrubrum*

Forster's tern	*Sterna forsteri*
gadwall	*Anas strepera*
glossy ibis	*Plegadis falcinellus*
great blue heron	*Ardea herodias*
great egret	*Casmerodius albus*
great horned owl	*Bubo virginianus*
greater white-fronted goose	*Anser albifrons*
greater yellowlegs	*Tringa melanoleuca*
green treefrog	*Hyla cinerea*
green heron	*Butorides virescens*
green-winged teal	*Anas crecca*
hooded merganser	*Lophodytes cucullatus*
killdeer	*Charadrius* vociferus
king rail	*Rallus elegans*
laughing gull	*Larus atricilla*
least bittern	*Ixobrychus exilis*
least sandpiper	*Calidris minutilla*
lesser scaup	*Aythya affinis*
lesser yellowlegs	*Tringa flavipes*
little blue heron	*Egretta caerulea*
long-billed dowitcher	*Limnodromus scolopaceus*
Louisiana black bear	*Euarctus americanus* var. *luteolus*
mallard	*Anas plathyrhynchos*
marsh rice rat	*Oryzomys palustris*
marsh wren	*Cistothorus palustris*
merlin	*Falco columbarius*
mink	*Mustella vison*
mottled duck	*Anas fulvigula*
mud snake	*Farancia abacura*
Nearctic river otter	*Lutra canadensis*
nine-banded armadillo	*Dasypus novemcinctus*
Northern cricket frog	*Acris crepitans*
Northern harrier	*Circus cyaneus*
Northern pintail	*Anas acuta*
Northern raccoon	*Procyon lotor*
nutria	*Myocastor coypus*
osprey	*Pandion haliaetus*
peregrine falcon	*Falco peregrinus*
pied-billed grebe	*Podilymbus podiceps*
pig frog	*Rana grylio*
piping plover	*Charadrius semipalmatus*
purple gallinule	*Porphyrula martinica*
red bat	*Lasiurus borealis*
red-breasted merganser	*Mergus serrator*

reddish egret	*Egretta rufescens*
red-eared turtle	*Pseudemys scripta*
redhead	*Aythya americana*
red-tailed hawk	*Buteo jamaicensis*
red-winged blackbird	*Agelaius phoeniceus*
ring-necked duck	*Aytha collaris*
ribbon snakes	*Thamnophis* spp.
savannah sparrow	*Passerculus sandwichensis*
seaside sparrow	*Ammodramus maritimus*
semipalmated plover	*Charadrius semipalmatus*
semipalmated sandpiper	*Calidris pusilla*
sharp-tailed sparrow	*Ammodramus caudacutus*
short-eared owl	*Asio flammeus*
shorttail shrew	*Blarina brevicauda*
snow goose	*Chen caerulescens*
snowy egret	*Egretta thula*
solitary sandpiper	*Tringa solitaria*
sora	*Porzana carolina*
Southeastern myotis	*Myotis austroriparius*
Southern leopard frog	*Rana sphenocephala*
speckled king snake	*Lampropeltis getulus*
spiny softshell	*Trionys spiniferus*
spotted sandpiper	*Actitis macularia*
striped skunk	*Mephitis mephitis*
swamp rabbit	*Sylvilagus aquaticus*
swamp sparrow	*Melospiza georgiana*
toads	*Bufo* spp.
tree swallow	*Tachycineta bicolor*
tricolor heron	*Egretta tricolor*
upland chorus frog	*Pseudacris triseriata*
Virginia opossum	*Didelphis virginiana*
Virginia rail	*Rallus limicola*
water snakes	*Nerodia* spp.
western cottonmouth	*Agkistrodon piscivorus*
western sandpiper	*Calidris mauri*
white ibis	*Eudocimus albus*
white-faced ibis	*Plegadis chihi*
white-footed mouse	*Peromyscus leucopus*
white-tailed deer	*Odocoileus virginianus*
willet	*Catoptrophorus semipalmatus*
Wilson's phalarope	*Pharalopus tricolor*
wood duck	*Aix sponsa*
yellow-crowned night-heron	*Nycticorax violaceus*

APPENDIX D

ENDANGERED SPECIES CORRESPONDENCE

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
P.O. Box 16030
Baton Rouge, LA 70893

Office: 225-382-2047
FAX: 225-382-2042
EMAIL:quin.kinler@la.usda.gov

March 27, 2002

Mr. David W. Fruge
Field Supervisor
U.S. Fish and Wildlife Service
646 Cajundome Boulevard, Suite 400
Lafayette, Louisiana 70506

RE: Coastal Wetlands Planning, Protection, and Restoration Act
Coastwide Nutria Control Program (LA-03b)

Dear Mr. Fruge:

As you are aware, the Coastwide Nutria Control Program LA-03b (CNCP) has been authorized under the Coastal Wetlands Planning, Protection, and Restoration Act. The proposed program is briefly described on Attachment 1. The proposed program area is illustrated on Attachment 2.

By this letter, I am requesting a determination as to whether the CNCP would have any significant impacts to any listed or proposed threatened or endangered species. If you or your staff have any questions regarding this matter, please contact me at 225-382-2047.

Sincerely,

Quin J. Kinler
Resource Conservationist

cc: Bruce Lehto, ASTC/WR, NRCS, Alexandria
Randolph Joseph, Jr., ASTC/FO, NRCS, Lafayette
Britt Paul, WR Staff Leader, NRCS, Alexandria

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

An Equal Opportunity Provider and Employer

FACT SHEET
Updated March 27, 2002

Project Name and Number
Coastwide Nutria Control Program (LA-03b)

Coast 2050 Strategy
Coastwide: Herbivory Control

Project Location
Coastwide

Problem
Fur trapping activity has been declining for over ten years because of weak demand and low prices. This has resulted in over population of nutria and serious damage to coastal wetlands from nutria herbivory. It is estimated that approximately 100,000 acres have been impacted coastwide.

Goal
To eliminate or significantly reduce damage to coastal wetlands resulting from nutria herbivory.

Proposed Solution
The Coastwide Nutria Control Program will consist of an economic incentive payment of $4 per nutria tail delivered to collection centers established in coastal Louisiana. The northern limit of the program area will be Interstate 10 from LA-TX line to Baton Rouge, Interstate 12 from Baton Rouge to Slidell, and Interstate 10 from Slidell to LA-MS line.

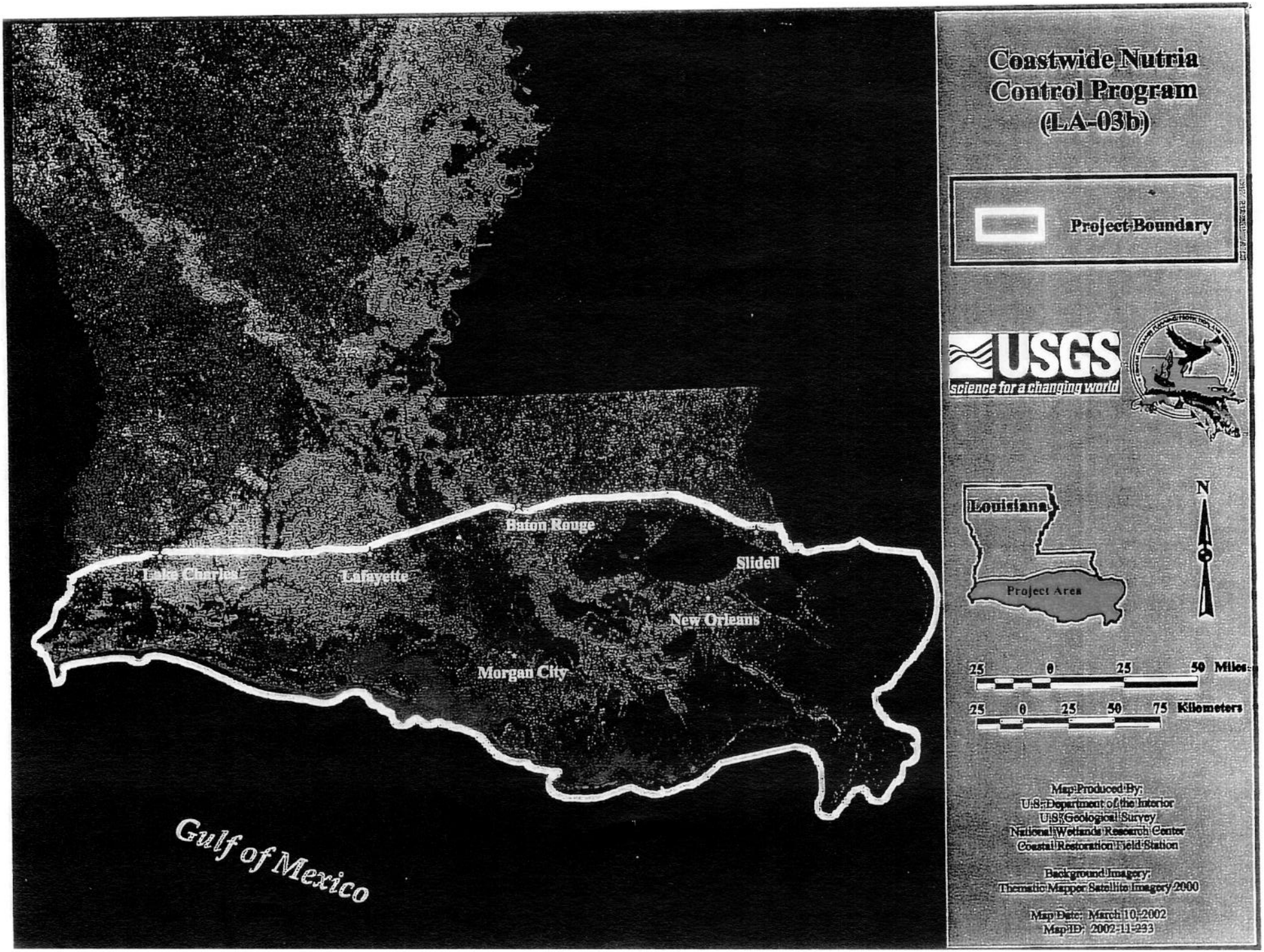
Program Benefits
The WVA predicted that the removal of 400,000 nutria annually would result in about 15,000 net marsh acres after 20 years. Additionally, the proposed project would greatly serve to protect significant coastal restoration investments that are being made in areas where nutria damage is prevalent. And, nutria control will be beneficial in coastal swamps where nutria can completely eliminate cypress regeneration.

Cost Estimate
The fully-funded 20-year cost is estimated to be $68,864,857.

Preparer of Fact Sheet

Greg Linscombe
LDWF
337-373-0181
linscombe.rg@wlf.state.la.us

Quin Kinler
NRCS
225-382-2047
quin.kinler@la.usda.gov


Coastwide Nutria Control Program (LA-03b)
Project Boundary
USGS
science for a changing world
Louisiana
Project Area
N
25 0 25 50 Miles
25 0 25 50 75 Kilometers
Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Background Imagery:
Thematic Mapper Satellite Imagery 2000
Map Date: March 10, 2002
Map ID: 2002-11-233
Baton Rouge
Lake Charles
Lafayette
Slidell
New Orleans
Morgan City
Gulf of Mexico

United States Department of the Interior

FISH AND WILDLIFE SERVICE
646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

April 18, 2002

Mr. Quin J. Kinler
Resource Conservationist
Natural Resource Conservation Service
Post Office Box 16030
Baton Rouge, Louisiana 70893

Dear Mr. Kinler:

Please reference your March 27, 2002, letter requesting our review of the U.S Department of Agriculture's Coastwide Nutria Control Program (LA-03b) project from a threatened and endangered species standpoint. That project, authorized under the Coastal Wetlands Planning, Protection, and Restoration Act, is designed to significantly reduce damage to coastal wetlands within Louisiana resulting from nutria herbivory. The U.S. Fish and Wildlife Service has reviewed the information provided, and offers the following comments in accordance with the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

The proposed project includes areas known to be inhabited by nesting bald eagles (*Haliaeetus leucocephalus*), Federally listed as a threatened species. Bald eagles nest in Louisiana from October through mid-May. Eagles typically nest in baldcypress trees near fresh to intermediate marshes or open water in the southeastern parishes. Areas with high numbers of nests include Lake Verret Basin south to Houma, the southern marshes/ridge from Houma to Bayou Vista, the north shore of Lake Pontchartrain, and the Lake Salvador area. Eagles also winter, and infrequently nest near large lakes in central and northern Louisiana. Major threats to this species include habitat alteration, human disturbance, and environmental contaminants (i.e., organochlorine pesticides and lead).

The goal of the proposed project is to annually remove approximately 400,000 nutria, which is projected to result in a net gain of approximately 15,000 marsh acres in 20 years. Additionally, the proposed project would help to protect significant coastal restoration investments in areas where nutria damage is prevalent. Because of the potential, however, to use lead shot for nutria removal as part of the proposed project, the possible toxic effect of lead ingested by bald eagles while feeding on nutria should be addressed. Bald eagles and nutria often utilize the same habitat, so dead or wounded nutria containing lead shot may become available as prey to eagles. Accordingly, we recommend that the environmental assessment include an analysis of the likely project effects on bald eagles and a determination of whether the proposed project is "likely (or not likely) to adversely affect" that species.

We appreciate the opportunity to provide comments during this phase of project implementation. If you need further assistance, please contact Karen Soileau (337/291-3132) of this office.

Sincerely,

David W. Frugé
Supervisor
Louisiana Field Office

cc: LA Dept. of Wildlife and Fisheries, Baton Rouge, LA

State of Louisiana

James H. Jenkins, Jr.
Secretary

Department of Wildlife & Fisheries
Post Office Box 98000
Baton Rouge, LA 70898-9000
(225) 765-2800

M.J. "Mike" Foster, Jr.
Governor

June 13, 2002

Mr. David W. Fruge
Field Supervisor
U.S. Fish and Wildlife Service
646 Cajundome Boulevard, Suite 400
Lafayette, Louisiana 70506

RE: Coastal Wetlands Planning, Protection, and Restoration Act
Coastwide Nutria Control Program (LA-03b)

Dear Mr. Fruge:

Because the Louisiana Department of Wildlife and Fisheries is the lead implementing agency for the Coastwide Nutria Control Program LA-03b (CNCP), I am writing in response to your April 18, 2002, letter to Mr. Quin Kinler of the Natural Resources Conservation Service. That letter identifies the possible toxic effect of lead ingested by bald eagles while feeding on nutria left in the field after being taken or wounded with lead shot. That letter further recommends that the CNCP Environmental Assessment include an analysis of the likely project effects on bald eagles and a determination of whether the proposed project is "likely (or not likely) to adversely affect" that species. The purpose of my letter is to present LDWF's determination of the affect on bald eagles and the supporting rationale.

The LDWF has determined that the CNCP is "not likely to adversely affect" bald eagles based on the following rationale.

1. With the incentive payment of $4.00 per nutria, it is anticipated that most participants will deliver harvested nutria to fur and / or meat processors to earn an additional $1 to $2 per nutria, hence most carcasses will not be left in the field.
2. It is anticipated that most participants who shoot nutria with a .22 caliber rifle will do so to avoid or minimize pelt and/or meat damage so that the harvested nutria can be sold for fur and/or meat.
3. It is anticipated that most participants who shoot nutria solely for the incentive payment would do so utilizing a shotgun, and for that reason LDWF will impose a steel-shot-only regulation for the taking of nutria with a shotgun.
4. The proposed participation process will link each participant to a particular tract of land allowing a determination of location of harvest; the participant will also be required to identify method of take and to report on the use of the carcass. Should this data reveal that a large number of nutria are

being taken with .22 caliber rifle (i.e., with lead bullets) and are being left in the field in the vicinity of high numbers of eagles, investigative and/or corrective action will be taken.

In summary, the LDWF has determined that the CNCP is "not likely to adversely affect" the bald eagle. Please advise whether the U.S. Fish and Wildlife concurs with this determination.

Sincerely,

Philip E. Bowman.
Assistant Secretary

cc: Greg Linscombe, LDWF, New Iberia
Bruce Lehto, NRCS, Alexandria
Quin Kinler, NRCS, Baton Rouge

United States Department of the Interior

FISH AND WILDLIFE SERVICE
646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

July 17, 2002

Mr. Philip E. Bowman
Assistant Secretary
Louisiana Department of Wildlife and Fisheries
Post Office Box 98000
Baton Rouge, Louisiana 70898-9000

Dear Mr. Bowman:

Please reference your June 13, 2002, letter regarding the U.S. Department of Agriculture's Coastwide Nutria Control Program (LA-03b) project. That project, authorized under the Coastal Wetlands Planning, Protection and Restoration Act, is designed to reduce nutria damage to coastal wetlands in Louisiana. The U.S. Fish and Wildlife Service has reviewed the information provided with your letter, and offers the following comments in accordance with the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

In our April 18, 2002, letter on that project, we informed the Natural Resources Conservation Service (NRCS, i.e., the Federal project sponsor) that the affected area is inhabited by nesting bald eagles, Federally listed as a threatened species. Bald eagles nest in Louisiana from October through mid-May. Because of the potential to use lead shot or small caliber bullets for nutria removal as part of the proposed project, the Service requested that the possible toxic effects of lead ingested by bald eagles while feeding on nutria be addressed. We also recommended that the Environmental Assessment include an analysis of the likely project effects on bald eagles and a determination of whether the proposed project is "likely (or not likely) to adversely affect" that species.

Your June 13, 2002, letter, indicates that most participants would deliver harvested nutria to fur and/or meat processors to earn $1 to $2 in addition to the incentive payment of $4 per nutria, and that most carcasses would not be left in the field. Furthermore, you indicated that those participants who take nutria with a .22 caliber rifle would do so in order to minimize pelt and/or meat damage so that the harvested nutria could be sold. Your agency also anticipates that those participants who take nutria for the incentive payment only would do so utilizing a shotgun. The Louisiana Department of Wildlife and Fisheries intends to impose a steel-shot-only regulation for the taking of nutria with a shotgun. Based on the above assumptions, you determined that the proposed project is "not likely to adversely affect" the bald eagle.

We appreciate your efforts to include provisions to minimize impacts to bald eagles (i.e., requiring steel shot to be utilized for the taking of nutria with a shotgun). We find, however, that

we will need additional documentation for us to concur with your determination that the proposed project is not likely to adversely affect bald eagles. We recommend, therefore, that our respective staffs, along with personnel from the NRCS, meet to address those specific information and associated documentation needs. As we discussed during a July 16, 2002, telephone conference with your Fur and Refuge Division staff in New Iberia, information that we believe would be useful during such a meeting would include, but not be limited to, the following items:

1. the total number of trappers/hunters expected to participate in the proposed activity within the area where bald eagle nesting and associated feeding occurs (primarily St. Mary, Terrebonne, Lafourche and Jefferson Parishes);

2. the estimated percentages of those hunters expected to utilize rifles, shotguns, or no firearms;

3. the number of nutria carcasses expected to be left in areas frequented by bald eagles, after the nutria are shot with lead shot or bullets (e.g., nutria not retrieved, taken only for the incentive payment, etc.);

4. areas of overlap involving eagle foraging habitat and areas of anticipated high nutria harvest;

5. the ability and willingness of landowners to control carcass disposal by participating trappers/hunters; and

6. alternative field-disposal measures that would preclude bald eagles from feeding on nutria carcasses containing bullets or lead shotgun pellets, and mechanisms for requiring trappers and hunters to implement those measures.

We greatly appreciate the cooperation of your staff in this matter. We fully support efforts such as these to address the serious impacts of nutria on Louisiana's coastal marshes, and plan to work closely with LDWF and NRCS to resolve concerns over the potential adverse impacts to bald eagles that depend on those wetlands. Please have your staff contact Karen Soileau (337/291-3132) of this office to make the necessary meeting arrangements.

Sincerely,

David W. Frugé

David W. Frugé
Supervisor
Louisiana Field Office

cc: NRCS, Baton Rouge, LA
LDWF, Fur and Refuges Division, New Iberia, LA
LDWF, Natural Heritage Program, Baton Rouge, LA

State of Louisiana

James H. Jenkins, Jr.
Secretary

Department of Wildlife & Fisheries
Post Office Box 98000
Baton Rouge, LA 70898-9000
(225) 765-2800

M.J. "Mike" Foster, Jr.
Governor

August 22, 2002

Mr. David Frugé, Supervisor
U.S. Fish and Wildlife Service
646 Cajundome Blvd.
Suite 400
Lafayette, LA 70506

Dear Mr. Frugé:

Please reference your July 17, 2002, letter regarding the U.S. Department of Agriculture's Coastwide Nutria Control Program (LA-03b) project. The Louisiana Department of Wildlife and Fisheries (LDWF) has reviewed the questions and comments provided by the Fish and Wildlife Service concerning the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.). In our discussions with several major land managers and analysis of available data, we offer the following responses to your six questions from the above stated document:

1. We anticipate that the number of participating trappers/hunters will resemble the trapping seasons of 1996-97 and 1997-98. During those seasons, the total trapping licenses for the state averaged about 2,500, the proposed program area averaged about 1,400 licenses, and the five parishes averaged about 470 licenses. The average number of nutria pelts sold was about 343,000. Using this data, we estimate the total number of trappers/hunters participating in the program in the parishes of concern will be about 500.

2. Based on phone conversations between LDWF and major coastal land managers across Louisiana, we expect trappers/hunters to use standard trapping techniques or .22 caliber rifles. No land managers predicted the use of shotguns as means of harvesting nutria. Based on information from land managers, LDWF estimates approximately 70 percent of the harvest will be from trapping and 30 percent will be from shooting, but this will vary with the area trapped/hunted.

3. Considering the following regulation, LDWF anticipates that only a minimal number of nutria carcasses could remain in the trapping/hunting area and potentially available to foraging bald eagles. The Notice of Intent by the

Louisiana Wildlife and Fisheries Commission to establish the Coastwide Nutria Control Program and regulations will be amended to include the regulation: "Participants are required to remove carcasses from the trapping/hunting area. If carcasses are not sold whole, they must be placed in such a manner as to prohibit feeding on the carcasses by birds, including southern bald eagles. Carcasses may be buried, placed in heavy overhead vegetation or concealed by any other means necessary to prevent consumption by birds."

4. A review of published literature on bald eagles in Louisiana did not provide data on foraging distances. However, we have constructed a map (see attached map) using the 2001-2002 eagle nesting data and the 2001 nutria vegetative damage sites. We believe that nutria vegetative damage sites provide the best indication of high populations and the best potential for large harvests. Areas where bald eagles occur and potential large harvests of nutria overlap are upper Terrebonne parish and areas around Lake Des Allemands and Lake Salvador.

5. With the addition of the regulation stated in answer 3, the responsibility for nutria carcass removal will be placed on the participants.

6. See answer number 3.

The LDWF will conduct two aerial surveys during the trapping season to determine if participants in the Coastwide Nutria Control Program are complying with regulations. These low level helicopter surveys will cover the areas of overlap of eagle nests and high nutria densities. Additionally, information obtained from each participant during the tail collection process, including method of take and use of nutria carcasses, will also be used to monitor compliance.

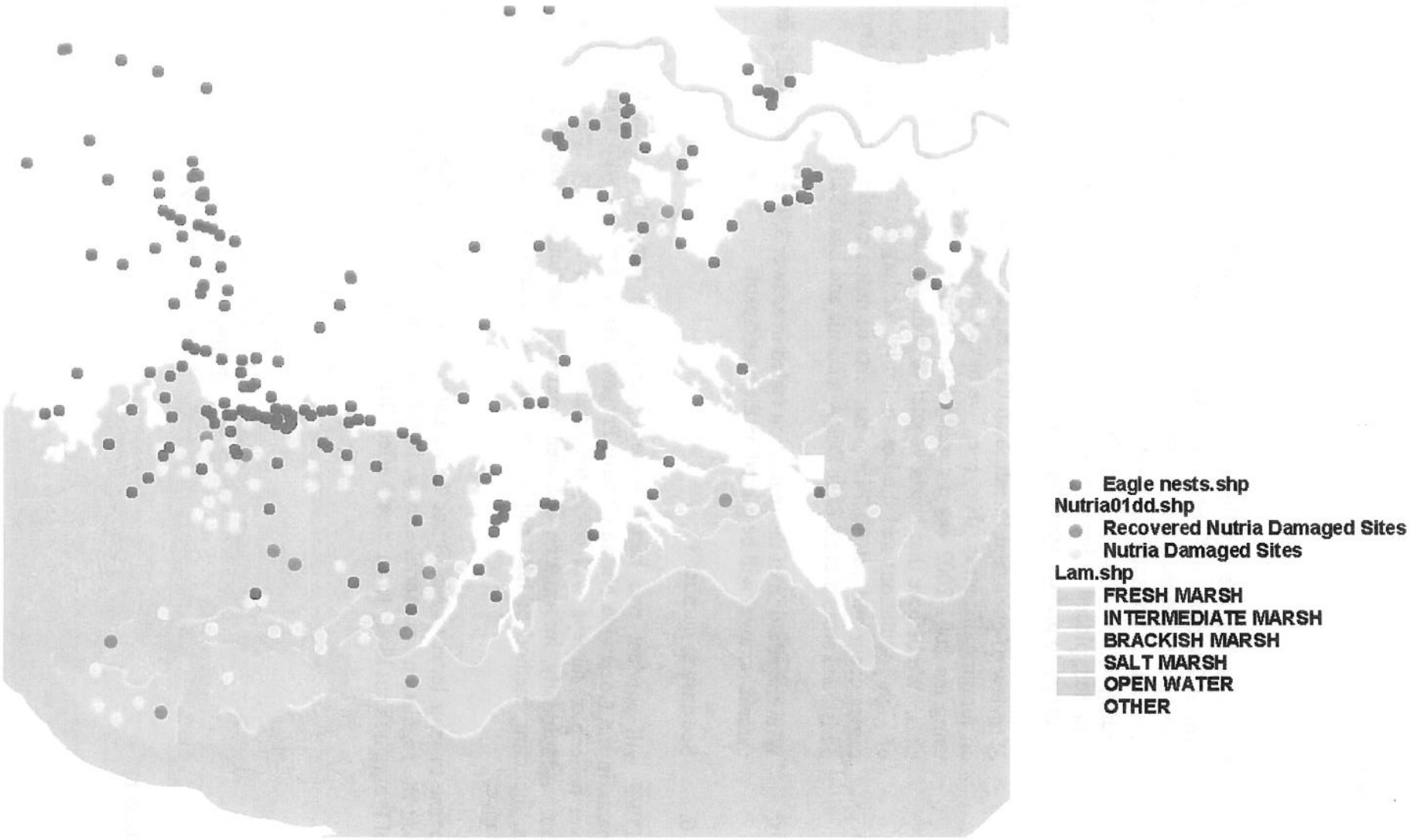
In response to your letter to Mr. Bruce Lehto dated July 22, 2002 concerning bald eagles and based on the regulation and aerial survey, in the opinion of the LDWF the Coastwide Nutria Control Program is not likely to adversely affect that species.

Sincerely,

Philip E. Bowman
Assistant Secretary

Attachment

Nutria Damage and Eagle Nests in Southeast Louisiana



Eagle nests from 2001-2002 nest survey.
Nutria damage from 2001 survey.
Nutria damage is a sign of relative abundance.

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
646 Cajundome Blvd., Ste. 180
Lafayette, LA 70506

To: Project File: Coastwide Nutria Control Program (LA-03b)

From: Mike Carloss, Wildlife Biologist/Project Manager

Subject: **Meeting Report: Bald Eagle Issue**

Date: August 14, 2002

In order to address the information recommended by U.S. Fish and Wildlife Service (reference letter July 17, 2002) concerning the protection to bald eagles, a meeting was held on August 12, 2002 at LDWF headquarters. Participants included Phil Bowman, Brant Savoie, Bob Love, Greg Linscombe, Tom Hess, Ed Mouton and Jeff Marx with LDWF, and Quin Kinler and Mike Carloss with NRCS. The following is a summary of the meeting:

Tom Hess handed out information on bald eagle nesting sites in La., eagle foraging, productivity, etc. Tom then discussed bald eagles in La. He stated that eagles do indeed feed on carrion and noted that some eagles have been killed in La. by vehicles while scavenging on road kills. Phil Bowman inquired about the lead toxicity tests on eagles for Davis Pond project and Tom replied that the results are not yet available.

Greg Linscombe handed out a draft letter (August 1, 2002) by LDWF responding to the Fish and Wildlife Service (FWS) letter dated July 17, 2002. Greg discussed the draft letter and went through each of the six items recommended. Phil asked about the potential for non-toxic .22 shot, which I reported on. Non-toxic shot is not presently available to the general public but could potentially be special-ordered. Phil then stated that LDWF would not get into purchasing and distributing ammunition. He stated that accountability of the ammunition would be a potential problem as has been with shotgun shells for youth hunter safety training; LDWF is currently phasing-out that aspect of hunter safety training. He then stated that the LDWF's first priority would be to amend their proposed program regulations to require trappers to take the nutria out of the marsh. Additionally, LDWF proposes to conduct two helicopter surveys during the trapping season to determine compliance with the above-mentioned regulation; the surveys would target that portion of the program area where the nutria-eagle interaction would be greatest.

Discussion then followed regarding wording of the regulation. It was agreed that LDWF would finalize wording of the regulation and then provide to FWS a draft of the LDWF response letter, which would be followed with a meeting with the FWS for further discussion.. A meeting was arranged for August 19, 2002 at 10:30 a.m. at LDWF headquarters with FWS.

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United States Department of Agriculture

NRCS

Natural Resources Conservation Service
P.O. Box 16030
Baton Rouge, LA 70893

Telephone: 225-382-2047
Fax: 225-382-2042
email: quin.kinler@la.usda.gov

September 4, 2002

To: Project File: Coastwide Nutria Control Program (LA-3b)

From: QK Quin Kinler, Resource Conservationist

Subject: Meeting Summary: Bald Eagle Issue

A meeting was held on August 19, 2002, at the Louisiana Department of Wildlife and Fisheries Baton Rouge Office among USFWS, LDWF, and NRCS to discuss the bald eagle concerns associated with Coastwide Nutria Control Program LA-3b (CNCP). Participants included Dave Fruge and Debbie Fuller of USFWS; Phil Bowman, Brandt Savoie, Greg Linscombe, Edmund Mouton, Jeff Marx, and Tom Hess of LDWF; and Michael Carloss and Quin Kinler of LDWF.

Dave expressed FWS support for the CNCP and then Debbie explained the Endangered Species consultation process. Once FWS determined (April 18, 2002, letter) that CNCP may adversely affect bald eagles, we are now in informal consultation and the lead federal agency (NRCS) must determine whether CNCP is likely or not likely to adversely affect. Such a determination would have to be concurred on by FWS and documented as part of the CNCP Environmental Assessment (EA). If the informal consultation can not yield a determination of "not likely to adversely affect" with FWS concurrence, then we would move into formal consultation. While FWS speculated that formal consultation would not result in stopping the CNCP, the process could be time consuming, possibly causing problems for the scheduled CNCP implementation that includes contract award in September and trapping/hunting to begin in November.

Features of the CNCP that collectively address the bald eagle concern were discussed, including:

1. Participant registration which will include the direct dissemination of information to each participant, including Program Procedures and regulations pertaining to bald eagles and lead poisoning.

2. LDWF Regulations pertaining to bald eagle and lead poisoning will include the following:

   Nutria may be taken by any legal method except that if taken with a shotgun, steel shot must be used.

   Participants are required to remove carcasses from the trapping/hunting area. If carcasses are not sold whole, they must be placed in such a manner as to prohibit feeding on the carcasses by birds, including southern bald eagles. Carcasses may be buried, placed in heavy overhead vegetation or concealed by any other means necessary to prevent consumption by birds.

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3. Each participant will be required to identify the property trapped/hunted, the number and location of origin of animals harvested, method of take, animal retrieval rates, and carcass use or disposal.

4. To determine compliance with take and disposal regulations:

   The LDWF will interview those participants that use firearms to take nutria from within or near areas of high bald eagle concentrations. Should there be any suspicion that lead-shot animals are not being retrieved or are not being placed in such a manner as to prohibit feeding on the carcasses by birds, including bald eagles, an investigation will be made and/or corrective actions will be taken. Corrective action could include removal of a participant from the Program.

   The LDWF will conduct two aerial surveys during the trapping season to determine if participants are complying with regulations. These low-level helicopter surveys will cover the areas of overlap of eagle nests and high nutria densities. In the event of noncompliance, an investigation will be made and/or corrective actions will be taken; corrective action could include removal of a participant from the Program.

LDWF and NRCS opined that the CNCP would be "not likely to adversely affect" the bald eagle. FWS would like to review the complete analysis before making a final decision. It was agreed that NRCS would re-draft those portions of the EA that pertain to the bald eagle, including reference to the above CNCP measures plus additional information deem pertinent by NRCS. The draft would be sent informally to FWS. If FWS concurs with a determination of "not likely to adversely affect", there would be an exchange of correspondence to document the findings. If FWS does not concur, formal consultation would begin.

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
P.O. Box 16030
Baton Rouge, LA 70893

Telephone: 225-382-2047
Fax: 225-382-2042
email: quin.kinler@la.usda.gov

September 4, 2002

Mr. David W. Fruge
Field Supervisor
U.S. Fish and Wildlife Service
646 Cajundome Boulevard, Suite 400
Lafayette, Louisiana 70506

RE: Coastal Wetlands Planning, Protection, and Restoration Act
Coastwide Nutria Control Program (LA-03b)
Analysis of Effect on Bald Eagles

Dear Mr. Fruge:

Your letter dated April 18, 2002, recommended that the Environmental Assessment for the Coastwide Nutria Control Program LA-03b (CNCP) include an analysis of the likely project effects on bald eagles and a determination of whether the proposed project is "likely (or not likely) to adversely affect" that species. Enclosed are the recommended analysis and determination, presented as excerpts from, and appendices to, the CNCP Project Plan and Environmental Assessment.

Please review the enclosed information and advise whether your office concurs with the NRCS determination that the Coastwide Nutria Control Program is not likely to adversely affect the bald eagle, a threatened species located in the Program area.

Sincerely,

Quin J. Kinler
Resource Conservationist

cc: Philip Bowman, Assistant Secretary , LDWF, Baton Rouge
Greg Linscombe, LDWF, New Iberia
Bruce Lehto, ASTC/WR, NRCS, Alexandria
Randolph Joseph, Jr., ASTC/FO, NRCS, Lafayette
Britt Paul, WR Staff Leader, NRCS, Alexandria
Michael Carloss, Wildlife Biologist / Project Manager, NRCS, Lafayette

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

September 17, 2002

Mr. Quin J. Kinler
Resource Conservationist
Natural Resource Conservation Service
Post Office Box 16030
Baton Rouge, Louisiana 70893

Dear Mr. Kinler:

Please reference your September 2, 2002, letter and associated analysis of effects of the U.S. Department of Agriculture's planned Coastwide Nutria Control Program (LA-03b) on threatened and endangered species. That project, authorized under the Coastal Wetlands Planning, Protection and Restoration Act, is designed to reduce nutria damage to coastal wetlands in Louisiana through an Incentive Payment Program (IPP). Under that IPP, trappers are required to deliver only severed nutria tails to receive payment. The U.S. Fish and Wildlife Service has reviewed the information provided with your letter, and offers the following comments in accordance with provisions of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

In our April 18, 2002, letter, we requested that you analyze the potential project effects (i.e., toxic effect of lead ingestion from nutria shot with shotguns and .22 caliber rifles) on threatened bald eagles (*Haliaeetus leucocephalus*), which are known to nest in the project area. We have attended several subsequent meetings with personnel of your agency and the Louisiana Department of Wildlife and Fisheries (LDWF) to discuss that issue.

In the Analyses of Effects, included with your letter, you have determined that over 150 bald eagles may nest in the project area and an additional 500 or more immature and non-nesting adults may inhabit that area. The LDWF anticipates that, for this project, approximately 70 percent of nutria will be taken by standard trapping techniques, 30 percent via .22 caliber rifle, and a negligible number using shotguns; thus, approximately 105,000 nutria may be taken via .22 caliber rifles. Bald eagle mortality due to lead poisoning has been well documented in the literature. Studies have also indicated that healthy eagles may regurgitate ingested lead. The following features of the IPP have been incorporated into the IPP to minimize the potential effects of lead ingestion:

1. Each participant will be registered. The registration process will include the direct dissemination of information to each participant, including program procedures and regulations pertaining to bald eagles and lead poisoning.

2. The LDWF Regulations for the IPP will include the following language: Nutria may be taken by any legal method except that, if taken with a shotgun, steel shot must be used. Participants are required to remove carcasses from the trapping/hunting area. If carcasses are not sold whole, they must be placed in such a manner as to prohibit feeding on the carcasses by birds, including bald eagles. Carcasses may be buried, placed in areas with heavy overhead vegetation or concealed by any other means necessary to prevent consumption by birds.

3. The participant registration process will include identification of the property to be trapped/hunted by each participant. When submitting nutria tails for the incentive payment, each participant will be required to identify the property trapped/hunted, the number and location of origin of animals harvested, method of take, animal retrieval rates, and carcass use or disposal.

4. To determine compliance with take and disposal regulations, LDWF will interview those participants who use firearms to take nutria from within or near areas of high bald eagle concentrations. Should there be any suspicion that lead-shot animals are not being retrieved or are not being placed in such a manner as to prohibit feeding on the carcasses by birds, including bald eagles, an investigation will be made and/or corrective actions will be taken. Corrective action could include removal of a participant from the IPP.

The LDWF will also conduct two aerial surveys during the trapping season to determine if participants are complying with regulations. Those low-level helicopter surveys will cover the areas of overlap of eagle nests and high nutria densities. In the event of noncompliance, an investigation will be made and/or corrective actions will be taken; corrective action could include removal of a participant from the IPP.

Compliance with regulations is anticipated to be high because: 1) all project participants will directly receive a copy of program procedures and regulations pertaining to bald eagles and lead poisoning; 2) participants are required to report number and location of origin of animals harvested, method of take, animal retrieval rates, and carcass use or disposal; 3) LDWF will interview those participants who use firearms to take nutria from within or near areas of high bald eagle nest concentrations, and should there be any suspicion that lead-shot animals are not being retrieved or are not being placed in such a manner as to prohibit feeding on the carcasses by birds, including bald eagles, an investigation will be made and/or corrective actions will be taken; and 4) in the areas of overlap of eagle nests and high nutria densities, the LDWF will conduct two aerial surveys during the trapping season to determine if participants are complying with regulations. In the event of noncompliance, corrective action could include removal of a participant from the IPP.

The number of nutria carcasses left in the marsh is anticipated to be low for the following two reasons: 1) based on telephone interviews, LDWF believes that most participants will deliver the whole carcass to fur and/or meat processors in order to obtain an additional $1 to $2 per nutria; and 2) LDWF rifle-harvest of nutria typically yields less than 1 percent wounded animals because nutria generally present close-range, easy targets.

The Service has reviewed the above-mentioned measures and due to: 1) the reduction in the number of carcasses left in marsh; 2) the proposed monitoring and enforcement measures; 3) the low probability of eagles encountering those carcasses left in the marsh; and 4) the potential for eagles that may ingest lead to regurgitate it in some instances, we concur with your determination that the Coastwide Nutria Control Program is not likely to adversely affect the bald eagle.

We greatly appreciate your cooperation, and that of the LDWF, in this matter. We fully support efforts such as these to address the serious impacts of nutria on Louisiana's coastal wetlands. Should you have further questions, please contact Deborah Fuller (337/291-3124) of this office.

Sincerely,

David W. Frugé
Supervisor
Louisiana Field Office

cc: LDWF, Fur and Refuges Division, Baton Rouge, LA
LDWF, Natural Heritage Program, Baton Rouge, LA
NRCS, Alexandria, LA

APPENDIX E

PROGRAM PROCEDURES

COASTWIDE NUTRIA CONTROL PROGRAM
DRAFT PROGRAM PROCEDURES
(9/5/02)

Program Objective. To provide economic incentive, by payment of $4 per nutria tail, to encourage the harvest of up to 400,000 nutria annually from coastal Louisiana.

Program Area. Coastal Louisiana, bounded on the north by Interstate 10 from the LA-TX line to Baton Rouge, Interstate 12 from Baton Rouge to Slidell, and Interstate 10 from Slidell to the LA-MS line.

Participant Application Process.

1. Participants must acquire a valid **Louisiana Trapping License.**
2. To facilitate tracking of the geographic distribution of harvest, to discourage trespass, and to reduce safety concerns, participants must obtain permission to trap/hunt in the Program area from an appropriate private, state, or federal landowner.
3. Participants must submit a completed **Nutria Control Program Participant Application** to LDWF or its Contractor. To be considered complete, the application must contain the following information: Name, address, telephone number, driver's license number, social security number, and Trapping License number of applicant; description of property to be trapped/hunted (acres, parish, township, range, section); name, address, and telephone number of landowner(s) (private or public); signature of participant; signature of landowner(s) or designated representative. Participants must also submit a copy of legal lease with a property description or a tax receipt for the property to be trapped/hunted. If the participant anticipates that an assistant would be delivering tails to a collection center, the participant must provide the name and driver's license number of the assistant with the application.
4. Applications submitted to the LDWF or its Contractor by October 1 shall be processed by the opening of Trapping Season. Applications submitted to the LDWF or its Contractor after October 1 shall be processed in the order received.
5. The LDWF Contractor shall review each application for completeness and validity. Additionally, if a given landowner (private or public) has provided the LDWF with a list of permitted participants, the LDWF Contractor will confirm the validity of the application and property description.
6. Applications listing only waterbodies, without signature of adjacent landowner(s) or designated representative(s), shall be considered incomplete.
7. For applications determined to be complete and valid, the LDWF Contractor will notify the participant by mail that his/her registration is finalized and provide the participant with a **Nutria Control Program Registration Number**.
8. Applications determined to be incomplete or invalid will be returned to the applicant with an explanation as to why registration can not be finalized.

Private, State, and Federal Landowner Cooperators. To help corroborate validity of applications referenced above, private, state, and federal landowners may submit to LDWF the name of each trapper/hunter by parish and the name, address, telephone number of the private, state, or federal landowner, or designated representative.

Collection Stations will be established by LDWF (working with LDWF contractor) in the following coastal parishes: Cameron, Vermilion, St. Mary, Terrebonne, Lafourche, Jefferson, St John, and St. Bernard or Plaquemines.

Protocol. Evidence of nutria harvested shall be in the form of delivering severed nutria tails to a Collection Station during a designated period. Collections will begin on or about December 1. Specific dates and times of collections will be established and advertised for each station. Frequency of collections is anticipated to be about once per week but may vary according to the anticipated geographic distribution of harvest.

LDWF Contractor will monitor number of tails collected and should the collection approach 400,000, there will be a public notification of an end date for collections. After such date, no additional tails will be collected. Should the collection not approach 400,000, tails will be collected through about April 5.

Participants or a designated assistant must present a **Nutria Control Registration Number** and proper identification to the LDWF Contractor. LDWF Contractor will verify proper participant registration.

Nutria may be taken by any legal method except that if taken with a shotgun, steel shot must be used.

Participants are required to remove carcasses from the trapping/hunting area or if carcasses are not sold whole, they must be placed in such a manner as to prohibit feeding on the carcasses by birds, including bald eagles. Carcasses may be buried, placed in heavy overhead vegetation or concealed by any other means necessary to prevent consumption by birds.

Participant shall present to the LDWF Contractor only fresh or well-preserved (iced, frozen, salted) nutria tails in a manner that allows counting of individual tails (e.g., tails can not be frozen together in a block). Only whole tails, greater than seven (7) inches in length will be accepted. Participant shall declare parish, section, township, and range where animals were taken and indicate method of take, animal retrieval rates, and carcass use.

Nutria tails delivered by unregistered individuals, or tails from animals from outside the Program area shall not be accepted by LDWF Contractor. LDWF Contractor shall count valid nutria tails and present participant with a receipt/voucher. LDWF Contractor and participant shall both sign receipt/voucher (and insert printed name) to acknowledge number of tails presented.

LDWF Contractor shall make payment to participants in a timely manner.

LDWF Contractor shall deliver tails to an approved disposal facility and receive documentation that ensures that nutria tails shall be properly disposed of and shall not leave the facility.

LDWF Contractor shall process and maintain records regarding participants, number and location of origin of animals harvested, method of take, animal retrieval rates, carcass use, receipts, and payments. LDWF Contractor shall submit periodic reports and invoices to LDWF. Within 30 days after all payments are made, LDWF Contractor shall submit to LDWF a complete electronic data base and report regarding participants, number and location of origin of animals harvested (by participant, by ownership, by township and range, etc.), receipts, and payments.

APPENDIX F

LOUISIANA WILDLIFE AND FISHERIES COMMISSION

NOTICE OF INTENT FOR COASTWIDE NUTRIA CONTROL PROGRAM

NOTICE OF INTENT

Department of Wildlife and Fisheries
Wildlife and Fisheries Commission

The Wildlife and Fisheries Commission does hereby advertise its intent to establish a coastwide nutria control program.

Title 76

WILDLIFE AND FISHERIES

Part V. Wild Quadrupeds and Wild Birds

Chapter 1. Wild Quadrupeds

§123. Coastwide Nutria Control Program

The Department of Wildlife and Fisheries does hereby establish regulations governing participation in the coastwide nutria control program. The administrative responsibility for this program shall rest with the Department Secretary; the Assistant Secretary, Office of Wildlife; and the Fur and Refuge Division.

1. The coastwide nutria control program objective is to provide economic incentive, by payment of $4 per nutria tail to participants, to encourage the harvest of up to 400,000 nutria annually from coastal Louisiana. For the purpose of this program, coastal Louisiana is bounded on the north by Interstate 10 from the Louisiana-Texas line to Baton Rouge, Interstate 12 from Baton Rouge to Slidell, and Interstate 10 to the Louisiana-Mississippi line.

2. Participant Application Process

a. Participants must acquire a valid Louisiana trapping license.

b. Participants must submit a completed nutria control program participant application to the department or its contractor.

c. To be considered complete, the application must contain the following information: name, address, telephone number, social security number, and trapping license number of applicant; tax receipt and a description of property to be trapped/hunted (acres, parish, township, range, section); name, address, and telephone number of landowner (private or public); signature of participant; and signature of landowner or designated

representative indicating permission to hunt or trap nutria on the described property.

d. For applications determined to be complete and valid, the participant will be notified by mail that his/her registration is finalized and a nutria control program registration number will be issued.

e. The participant must indicate if an assistant will be delivering tails on his behalf to a collection center and the participant must provide the name of the assistant(s) on the application.

f. Applications submitted to the department or its contractor by October 1 shall be processed by the opening of trapping season. Applications submitted to the department or its contractor after October 1 shall be processed in the order received.

g. Applications listing only waterbodies, without signature of an adjacent landowner or designated representative, shall be considered incomplete.

h. Applications determined to be incomplete or invalid will be returned to the applicant with an explanation as to why registration could not be finalized.

3. Harvest of Nutria

a. Participants must possess a valid trapping license and a nutria control program registration number.

b. Only nutria harvested during the open trapping season can be included in this program.

c. Nutria may be taken by any legal method except that if taken with a shotgun, steel shot must be used.

d. Participants are required to remove carcasses from the trapping/hunting area or, if carcasses are not sold whole, they must be placed in such a manner as to prohibit feeding on the carcasses by birds, including southern bald eagles. Carcasses may be buried, placed in heavy overhead vegetation or concealed by any other means necessary to prevent consumption by birds.

4. Collection of Nutria Tails for Payment

a. Collection stations will be established across coastal Louisiana by the department or its contractor.

b. Evidence of nutria harvested shall be in the form of delivering severed nutria tails to a collection station during a designated period. Collections will begin on or about November 20th. Specific dates

and times of collections will be established and advertised for each station.

c. Participant or a designated assistant must present the nutria control registration number and proper identification to the department contractor.

d. Participant or designated assistant shall present to the department contractor only fresh or well-preserved (iced, frozen, salted) nutria tails in a manner that allows counting of individual tails (e.g., tails cannot be frozen together in a block). Only whole tails, greater than 7 inches in length will be accepted.

e. Participant shall declare parish, section, township, and range where animals were taken and indicate method of take and carcass use.

f. Participant shall sign the receipt/voucher provided by the department contractor to acknowledge number of tails presented and accuracy of information provided.

5. Violation of any part of these regulations is a class 2 violation and conviction may result in disqualification from the program.

AUTHORITY NOTE: Promulgated in accordance with R.S. 56:115.

HISTORICAL NOTE: Promulgated by the Department of Wildlife and Fisheries, Wildlife and Fisheries Commission, LR .

The Secretary of the Department of Wildlife and Fisheries is authorized to take any and all necessary steps on behalf of the Commission to promulgate and effectuate this notice of intent and the final rule, including but not limited to, the filing of the fiscal and economic impact statements, the filing of the notice of intent and final rule and the preparation of reports and correspondence to other agencies of government.

Interested persons may submit comments relative to the proposed Rule to: Brandt Savoie, Fur & Refuge Division, Department of Wildlife and Fisheries, Box 98000, Baton Rouge, LA 70898-9000, prior to , , 2002.

In accordance with Act#1183 of 1999, the Department of Wildlife and Fisheries/Wildlife and Fisheries Commission hereby issues its Family Impact Statement in connection with the preceding Notice of Intent: This Notice of Intent will have no impact on the six criteria set out at R.S. 49:972(B).

Thomas M. Gattle, Jr.
Chairman

APPENDIX G

PUBLIC COMMENTS AND RESPONSES

United States Department of the Interior

FISH AND WILDLIFE SERVICE
646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

July 22, 2002

Mr. Bruce Lehto
Assistant State Conservationist
Natural Resources Conservation Service
3737 Government Street
Alexandria, Louisiana 71302

Dear Mr. Lehto:

The U.S. Fish and Wildlife Service (Service) has reviewed the draft Environmental Assessment (EA) for the Comprehensive Management of Nutria Herbivory in Coastal Louisiana and the Coastwide Nutria Control Program (LA-03b) located in Coastal Louisiana. The preferred alternative plan consists of providing trapper incentive payments of $4 per nutria harvested, to achieve a goal of harvesting 400,000 nutria annually, as well as investigating techniques to promote revegetation of nutria-damaged wetland sites. The Service submits the following comments in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), and the National Environmental Policy Act (83 Stat. 852, as amended; 42 U.S.C. 4321-4347).

General Comments

The EA is well written and is generally accurate in its assessment of impacts on fish and wildlife resources. The Service remains concerned about the potential adverse effects on the bald eagle (Federally listed as a threatened species) from ingestion of lead projectiles (shotgun pellets and small caliber bullets) in the carcasses of nutria shot as a result of the proposed incentive payments program. The final EA should more fully substantiate conclusions regarding the anticipated lack of adverse effects of the incentive program on the threatened bald eagle and, should include more-definitive measures to avoid ingestion of nutria-associated lead projectiles by bald eagles.

Specific Comments

Page 3, last paragraph - As noted above, the Service remains concerned that the proposed nutria incentive program could have significant impacts to the threatened bald eagle, through ingestion of small-caliber bullets and lead shotgun pellets imbedded in the carcasses of nutria taken as a result of that program.

Page 4, first paragraph, sentence 3 - The definition of acres impacted should be provided early in the document. The fact that 100,000 acres of marsh will be impacted does not mean that there is an annual loss of 100,000 acres due to nutria herbivory.

Page 7, last paragraph, first sentence - The U. S. Geological Survey citation is not listed in the Literature Cited.

Page 17, first paragraph, last sentence - The definition of the term "impacted" should be presented in this paragraph instead of implied in paragraph 4 of this page. It is unclear whether "impacted" means total loss or conversion of marsh to open water, or a temporary herbivore "cropping" impact.

Page 19, Table 2, footnotes - The single asterisk refers to "parishes", but no parish data appear in the table.

Page 27, Entire Section, Impacts to Threatened and Endangered Species - In our April 18, 2002, letter to your office regarding threatened and endangered species in the project area, we indicated that the affected area is inhabited by nesting bald eagles. Bald eagles nest in Louisiana from October through mid-May. Because of the potential to use lead shot or small caliber bullets for nutria removal as part of the proposed project, the Service requested that your agency assess the possible toxic effects of lead ingested by bald eagles while feeding on nutria. We also recommended that the EA include an analysis of the likely project effects on bald eagles and a determination of whether the proposed project is "likely (or not likely) to adversely affect" that species.

The EA indicated that most program participants would deliver harvested nutria to fur and/or meat processors to earn $1 to $2 in addition to the incentive payment of $4 per nutria, and that most carcasses would not be left in the field. Furthermore, you indicated that those participants who take nutria with a .22 caliber rifle would do so in order to minimize pelt and/or meat damage so that the harvested nutria could be sold. The EA also stated that those participants who take nutria for the incentive payment only would do so with a shotgun. The EA states that the Louisiana Department of Wildlife and Fisheries (LDWF) intends to impose a steel-shot-only regulation for the taking of nutria with a shotgun. Based on the above assumptions, the Natural Resources Conservation Service (NRCS) determined in the EA that the proposed project is "not likely to adversely affect" the bald eagle.

We appreciate the NRCS's efforts to include provisions to minimize impacts to bald eagles (e.g., requiring steel shot to be utilized for the taking of nutria with a shotgun). We find, however, that we will need additional documentation for us to concur with your determination that the proposed project is not likely to adversely affect bald eagles. We recommend, therefore, that our respective staffs, along with personnel from the LDWF, meet to address those specific information and associated documentation needs. Our July 17, 2002, letter to LDWF Assistant Secretary Phillip Bowman (copy provided to your Baton Rouge Office) identified specific information that we believe would be useful during that meeting.

Page 36, Literature Cited, U. S. Fish and Wildlife Service citation - Add the office location, i.e., Lafayette, LA.

Page B-1, Appendix B-1 - The scientific names for brown shrimp and white shrimp have been recently changed to *Farfantepenaeus aztecus* and *Litopenaeus setiferus,* respectively. The scientific name for red drum is *Sciaenops ocellata.* We suggest that the spotted seatrout (*Cynoscion nebulosus*) be added to the list because it is referenced in the text.

Summary Comments

The Service concurs with the EA that the preferred plan will have benefits to coastal wetlands by reducing nutria herbivory through the incentive program. We strongly support implementation of the preferred plan, provided that it incorporates measures sufficient to minimize lead ingestion by the threatened bald eagle.

Thank you for the opportunity to provide comments on the above-referenced EA. If your staff has any questions regarding our comments, please have them contact Darryl Clark (337/291-3111).

Sincerely,

David W. Frugé
Supervisor
Louisiana Field Office

cc: NMFS, Baton Rouge, LA
EPA, Baton Rouge, LA
LA Department of Wildlife and Fisheries, Baton Rouge, LA
LA Department of Natural Resources (CRD), Baton Rouge, LA
LA Department of Natural Resources (CRD), Abbeville, LA
LA Department of Natural Resources (CMD), Baton Rouge, LA

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, Louisiana 71302

September 19, 2002

Mr. David W. Fruge
Field Supervisor
U.S. Fish and Wildlife Service
646 Cajundome Boulevard, Suite 400
Lafayette, Louisiana 70506

RE: Coastal Wetlands Planning, Protection, and Restoration Act
Coastwide Nutria Control Program (LA-03b)

Dear Mr. Fruge:

Reference is made to your letter dated July 22, 2002, in which you provided comments regarding the draft Project Plan and Environmental Assessment for Comprehensive Management of Nutria in Coastal Louisiana and the Coastwide Nutria Control Program. Each of your comments is addressed below:

General Comments

Please refer to the letter (and supporting information) dated September 4, 2002, from Mr. Quin Kinler of my staff in which the Natural Resources Conservation Service (NRCS) presented its analysis of the likely project effects on bald eagles and its determination that the proposed project is "not likely to adversely affect" that species. Your letter dated September 17, 2002, concurred with that determination. The NRCS analysis and determination will be incorporated in the final Project Plan and Environmental Assessment.

Specific Comments

Page 3, last paragraph. See response to General Comments.

Page 4, first paragraph, sentence 3. The final Project Plan and Environmental Assessment will parenthetically define "impact" as "heavy grazing to conversion to open water".

Page 7, last paragraph, first sentence. The U.S. Geological Survey citation will be included in the final Project Plan and Environmental Assessment.

Page 17, first paragraph, last sentence. The final Project Plan and Environmental Assessment will parenthetically define "impact" as "heavy grazing to conversion to open water.

Page 19, Table 2, footnotes. The footnote will be corrected in the final Project Plan and Environmental Assessment.

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Page 27, Entire Section, Impacts to Threatened and Endangered Species. See response to General Comments.

Page 36, Literature Cited, U.S. Fish and Wildlife Service citation. The citation will be corrected in the final Project Plan and Environmental Assessment.

Page B-1, Appendix B-1. Corrections will be made in the final Project Plan and Environmental Assessment.

Summary Comments

No response required.

Thank you for your input to the Project Plan and Environmental Assessment. Please contact Quin Kinler, (225) 382-2047, if you have any further questions regarding this matter.

Sincerely,

Bruce M. Lehto
Assistant State Conservationist
Water Resources/Rural Development

cc: Britt Paul, WR Staff Leader, NRCS, Alexandria, LA
Michael Carloss, Wildlife Biologist / Project Manager, NRCS, Lafayette, LA
Quin Kinler, Resource Conservationist, NRCS, Lafayette, LA
Bob Roberts, Project Manager, LDNR, Baton Rouge, LA

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
9721 Executive Center Drive North
St. Petersburg, Florida 33702

July 22, 2002 F/SER44/RS:jk
225/389-0508

Mr. Quin Kinler
U.S. Department of Agriculture
Natural Resources Conservation Service
Post Office Box 16030
Baton Rouge, Louisiana 70893

Dear Mr. Kinler:

The National Marine Fisheries Service (NOAA Fisheries) has received the draft Project Plan and Environmental Assessment (Plan/EA) titled **"Comprehensive Management of Nutria in Coastal Louisiana and the Coastwide Nutria Control Program"** transmitted by a June 19, 2002, letter from Mr. Bruce Lehto. That letter initiated Essential Fish Habitat coordination as required by the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). The Coastwide Nutria Control Program (LA-03b) is authorized under the auspices of the Coastal Planning, Protection and Restoration Act with the Natural Resources Conservation Service (NRCS) serving as the Federal sponsor and the Louisiana Department of Natural Resources serving as the non-Federal sponsor. The other program element, Comprehensive Management of Nutria Hebivory Damage, is funded under a cooperative agreement between Louisiana State University and NRCS, as well as under a grant from NOAA Fisheries to the Louisiana Department of Wildlife and Fisheries. The Program Area evaluated in the draft Plan/EA encompasses the entire Louisiana coastal area south of Interstate-10. The draft Plan/EA evaluates information regarding the extent of nutria damage to coastal wetlands, assesses several alternative measures for reducing that damage, and analyzes the anticipated benefits and impacts associated with implementation of the preferred alternative.

NOAA Fisheries has reviewed the draft Plan/EA, and finds the document well written and inclusive of information adequate to assess the effects of the proposed project. As such, we have only the following minor change to recommend.

Page 13, paragraph 5. This paragraph identifies pink shrimp as being Federally-managed species having EFH in the project area. However, the GMFMC has not designed EFH for pink shrimp in Louisiana. As such, we recommend pink shrimp be deleted from this paragraph of the document. Additionally, specific categories of EFH for each life stage of managed species is missing from this section of the document. The Generic Amendment of the MSFCMA identified specific categories of EFH for various life stages of species managed by the GMFMC. Those categories of EFH, by life stage and species, are attached. We recommend the document be revised to provide a table listing the Federally-managed species for which EFH has been designated by the GMFMC to be in the project area, as well as the life stage and EFH category which potentially could be impacted by implementation of the proposed program.

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NOAA Fisheries concurs with your agency's determination that the preferred alternative would have no adverse impacts to EFH or other areas supportive of marine fisheries, and that implementation of the Nutria Control Program would result in net benefits to coastal wetlands and associated resources. Because project implementation would help protect EFH supportive of marine fishery resources, NOAA Fisheries has no further comments to provide on the draft Plan/EA and supports implementation of the program.

We appreciate the opportunity to review the draft Plan/EA. Please do not hesitate to contact Rachel Sweeney of this office at (225)389-0508 if you have questions regarding our comments.

Sincerely,

Richard Hartman

Andreas Mager, Jr.
Assistant Regional Administrator
Habitat Conservation Division

Enclosure

c:
FWS, Lafayette, Clark
EPA, Dallas, McQuiddy
COE, New Orleans, Podany
LA DNR, CRD
F/SER4
Files

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
P.O. Box 16030
Baton Rouge, LA 70893

Telephone: 225-382-2047
Fax: 225-382-2042
email: quin.kinler@la.usda.gov

September 10, 2002

Mr. Andreas Mager, Jr.
Assistant Regional Administrator
Habitat Conservation Division
National Marine Fisheries Service
9721 Executive Center Drive North
St. Petersburg, Florida 33702

RE: Coastal Wetlands Planning, Protection, and Restoration Act
Coastwide Nutria Control Program
Essential Fish Habitat

Dear Mr. Mager:

Reference is made to your letter dated July 22, 2002, in which you recommended minor changes to the draft **Project Plan and Environmental Assessment for Comprehensive Management of Nutria in Coastal Louisiana and the Coastwide Nutria Control Program**. I have discussed those changes with your Baton Rouge, Louisiana, Field Office (BRFO). Changes to the final Project Plan and Environmental Assessment will include removal of reference to pink shrimp and gray snapper, and inclusion of the attached table.

Through consultation with the BRFO and by incorporating recommended changes to the final Project Plan and Environmental Assessment, the Natural Resources Conservation Service considers the mandated Essential Fish Habitat consultation to be complete. Please contact me (225-382-2047) if you have any further questions regarding this matter.

Sincerely,

Quin J. Kinler
Resource Conservationist

cc: Richard Hartman, NMFS, Baton Rouge
Rachel Sweeney, NMFS, Baton Rouge
Bruce Lehto, ASTC-WR/RD, NRCS, Alexandria
Britt Paul, WRS Staff Leader, NRCS, Alexandria
Mike Carloss, Project Manager, NRCS, Lafayette
Bob Roberts, Project manager, LDNR, Lafayette

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Table 1. Federally-managed species for which the Council has designated EFH in the Program area, their life stages, and EFH categories that could potentially be impacted by the Program (National Marine Fisheries Service -- Habitat Conservation Division 2002, R. Hartman, 2002 personal communication).

SPECIES	LIFE STAGE	SYSTEM	ESSENTIAL FISH HABITAT
Brown shrimp	postlarvae/juvenile	estuarine	marsh edge, SAV, tidal creeks, inner marsh,
	subadults	estuarine	mud bottoms, marsh edge
White Shrimp	postlarvae/juvenile	estuarine	marsh edge, SAV, marsh ponds, inner marsh
	subadults	estuarine	marsh edge, SAV, marsh ponds, inner marsh
Red drum	postlarvae/juvenile	estuarine	SAV, estuarine mud bottoms, marsh/water interface
	subadults	estuarine	mud bottoms
	adults	estuarine	Gulf of Mexico and estuarine mud bottoms
Spanish mackerel	juvenile	estuarine	Estuaries
Cobia	larvae	estuarine	Estuaries
Bluefish	postlarvae/juvenile	estuarine	Estuaries

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

JUL 24 2002

Mr. Quin Kinler
United States Department of Agriculture
Natural Resources Conservation Services
P.O. Box 16030
Baton Rouge, LA 70893

Dear Mr. Kinler:

The Environmental Protection Agency (EPA) has reviewed the Project Plan and Environmental Assessment (EA) for the CWPPRA Project: Comprehensive Management of Nutria Herbivory Damage in Coastal Louisiana and Coastwide Nutria Control Program.

The EPA requests that the EA make full disclosure to the public of the funding approved by the CWPPRA Task Force for this project on its Project List 11. At the January, 2002 meeting, the Task Force acted to include the project as recommended by the Technical Committee to be funded in five-year increments and with $12.6 million funded for the first five years. The Task Force will evaluate whether further funding should be provided to continue after that period of time.

The EPA also requests that the Coastal Wetlands Planning, Protection and Restoration Act be included prominently in the title of the project. As the project is presently described throughout the document it would appear this is essentially only a USDA/ LA Department of Wildlife and Fisheries effort. As CWPPRA is providing 85% of the proposed $68,864,896 funding it appears appropriate to allow more credit to that program.

Please state in the EA whether the data submitted by the Contractor as indicated on page E-3 will be made available to the agencies and public. Also, we would like to receive a copy of the mailing list for the EA as noted on page 31.

The opportunity to review this document is appreciated.

Sincerely yours,

Troy C. Hill
Chief
Marine and Wetlands Section

cc Jeanene Peckham (Fax)

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United States Department of Agriculture

NRCS

Natural Resources Conservation Service
P.O. Box 16030
Baton Rouge, LA 70893

Telephone: 225-382-2047
Fax: 225-382-2042
email: quin.kinler@la.usda.gov

September 10, 2002

Mr. Troy Hill
Chief, Marine and Wetlands Section
United States Environmental Protection Agency
Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

RE: Coastal Wetlands Planning, Protection, and Restoration Act
Coastwide Nutria Control Program

Dear Mr. Hill:

I am responding to your letter dated July 22, 2002, in which you submitted four requests/comments related to the draft **Project Plan and Environmental Assessment for Comprehensive Management of Nutria in Coastal Louisiana and the Coastwide Nutria Control Program**.

Your first request was related to disclosure of the project funding as approved by CWPPRA Task Force. The following statement will be added to the Recommended Plan section of the final Project Plan and Environmental Assessment, "As of the date of this document, the Louisiana Coastal Wetlands Conservation and Restoration Task Force has approved the federal share of implementation funding for five years (85% of $12.6 million), with additional funding subject to review and approval by the LCWCRTF."

Your second request/comment was related to the title of the project and providing appropriate credit to the Coastal Wetlands Planning, Protection and Restoration Act. The final Project Plan and Environmental Assessment will acknowledge the federal authority and funding source in the Abstract, Introduction, and Recommended Plan. The Natural Resources Conservation Service has determined that changing the project title is not warranted.

Your third request was related to the availability of project data. The following statement will be added to the Recommended Plan section of the final Project Plan and Environmental Assessment, "A nutria harvest distribution report and a nutria herbivory survey report will be prepared annually and made available to public; supporting data will be made available upon request."

And lastly, you requested a copy of the mailing list for the draft Project Plan and Environmental Assessment. The list is attached.

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Thank you for your input to Project Plan and Environmental Assessment. Please contact me (225-382-2047) if you have any further questions regarding this matter.

Sincerely,

Quin J. Kinler
Resource Conservationist

attachment

cc (without attachment):

Bruce Lehto, ASTC-WR/RD, NRCS, Alexandria
Britt Paul, WRS Staff Leader, NRCS, Alexandria
Mike Carloss, Project Manager, NRCS, Lafayette
Bob Roberts, Project manager, LDNR, Lafayette

APPENDIX H

PUBLIC MEETINGS SUMMARY

PUBLIC MEETING

Coastwide Nutria Control Program
Date

Location

6:00 PM.....	Opening Remarks	LSU AgCenter Extension Service
6:10 PM.....	CWPPRA Process, NRCS Role, LDNR Role	Michael Carloss USDA Natural Resources Conservation Service
6:20 PM.....	Nutria and Nutria Damage Program Goal and Benefits Program Area Program Procedures Program Schedule	Greg Linscombe / Edmond Mouton Louisiana Department Wildlife and Fisheries
7:00 PM.....	Questions and Comments	Meeting Attendees
8:00 PM.....	Closing Comments	LSU AgCenter Extension Service

General Notes for Coastwide Nutria Control Program
Public Meeting #1 June 24,2002 Cameron, LA

- Meeting followed as per agenda.

- Approximately 15 "trappers" in attendance (most with Miami Corp.), two media (one w/ Associated Press and the other local), Mike Carloss, Clay Midciff and Scott Romero w/ NRCS, Mike Liffemen and an assistant w/ LSU Ag. Center and Greg Linscombe and Ed Mouton w/ LDWF.

- **Questions and Comments**:

- Mr. "Fats" Dupont questioned whether there were enough trappers remaining across the coast that would trap, and doubted there were.

- Another trapper questioned the $12 million dollars for five years at $1.6 million/year and questioned that it didn't "add up". Greg Linscombe explained that in addition to paying for nutria tails, there were other costs associated with this program such as aerial surveys, contingencies, positions (two w/ LDWF).

- Mr. Dupont stated that he hoped dealers would pay something for the fur (at least $2) to make it worth their while.

- Mr. Charlie Pettifer stated that if they didn't keep the carcasses they would dispose of them as in the past by using a "trash pile" area in the marsh away from camps and hunting areas where all the carcasses were disposed of. He said that this was never a problem. Greg added that there were potential problems associated w/ leaving nutria carcasses in the marsh, such as it being perceived as wasteful, etc. He also mentioned that at this point carcass removal was not mentioned in the program and trappers would handle it as they have historically.

- Greg mentioned the possibility of also having a market to sell meat to alligator farmers.

- Someone asked Greg what the outlook on the fur market was. He responded by saying that there were very few nutria furs left in LA and that was good. LA is dependent on the markets in Mainland China, Russia and the Ukraine. He said that problems in Argentina might potentially help LA. There were just too many unknowns at this point to say what the future market may be.

- Greg asked if there were any other questions and then asked the audience if they could produce nutria in SW LA and the response was an overwhelming no to not very many. Keep in mind that most nutria problems are in the southeast such as in Terrebonne and Lafourche parishes.
- **Meeting adjourned.**

General Notes for Coastwide Nutria Control Program
Public Meeting #2 June 25, 2002 Abbeville, LA

- Meeting followed as per agenda.

- Attendance: approximately 10 trappers (see sign in sheet, some did not sign in), Judge Edwards, Land Manager for Verm. Corp., two media (TV 10-Lafayette), Kyle Donaldson w/ Johnson Controls, Gabrielle Bodin w/ USGS, Mark Shirley w/ LSU Ag. Center, Mike Carloss, Bart Devillier and Charles Stemmans w/ NRCS and Greg Linscombe and Ed Mouton w/ LDWF.

- **Questions and Comments:**

- **Q:** What about shooting nutria in a bayou?

- **A:** (Ed Mouton/LDWF) You must have a valid tax receipt and have permission for property being trapped.

- **Q:** When will applications be ready?

- **A:** (Ed) Late summer or early fall. Ed added once again where applications could be obtained (coastal LDWF offices, web page and possibly where licenses are obtained).

- **Q:** Another question was asked about traversing long canals that cross through many landowners and hunting in these canals. Would this be permissible?

- **A:** (Greg Linscombe/LDWF) Greg responded that this was much like alligator hunting where the resource is tied to the land and hence a landowner.

- **Q:** What about muskrat?

- **A:** (Greg) Can't answer that question. This program was set up to take only nutria.

- **Q:** (Mark Shirley) What about sport hunting?

- **A:** (Ed) This "sport hunting" program will continue but will not be part of this incentive program. This all ties back to having permission from the landowner. Greg added information about the lack of nutria in SW LA and noted that it was realized as this program evolved that there was a lack of animals in SW. However, they did not want to exclude trappers in this part of the state because the potential may be there for producing animals from this area in the near future. He noted that there is currently an abundance of three-square grass throughout Cameron and Vermilion parishes and that this situation typically causes an increase in nutria populations.

- **Q:** (Mark Shirley) What about trapping on refuges?

- **A:** (Ed) There are currently "resident" trappers on these areas and they will be part of this program. Some Federal refuges have shown an interest and they will be handled on a refuge-by-refuge approach.

- **Q:** Will there be a certain place to bring the tails?

- **A:** (Ed) (this info. was already covered in the presentation) Yes, this information will provided to all participants as to time, place, etc. for collection sites.

- **Q:** Trapping record book for juveniles, could this be used?

- **A:** (Greg) Yes, this could be used.

- **Q:** (Judge Edwards) How can the land owner tell where his marsh damage is coming from?

- **A:** (Ed & Greg) Nutria typically leave signs when they are utilizing an area. LDWF has maps available to the landowners from survey flights that would show damaged areas.

- **Q:** Do you feel there is more damage from muskrat or nutria? imported from South America into La.
La native

- **A:** (Greg) Greg discussed some of the early muskrat damage in LA in the 1920's through the 40's. Currently there are only a few places in coastal LA that have any significant muskrat damage. The majority of the current damage is from nutria. Greg also briefly discussed alligator/nutria relationships, etc. He mentioned that there were several studies that will be contracted out that will look at some questions dealing with nutria populations and how this may effect alligator populations, alligator food habits, etc. that would be addressing some of these issues.

- **Meeting adjourned.**

General Notes for Coastwide Nutria Control Program
Public Meeting #3 June 26, 2002 Patterson, LA

- Meeting followed as per agenda.

- Approximately 25 trappers in attendance, Ed Mouton and Greg Linscombe w/ LDWF, Sandy Corkern w/ LSU Ag. Center, and Mike Carloss w/ NRCS.

- **Questions and Comments:**

- **Q:** What about people taking nutria w/o a permit?

- **A:** (Ed Mouton) This will not be allowed.

- **Q:** (Jack Bennett-trapper) How are getting tax receipts from land user going to help and how is trespassing going to be controlled?

- **A:** (Ed and Greg Linscombe) Must have tax receipt for the property, this is how the program is set up. W&F agents will issue citations for trespassers taking nutria on property w/o permission. Greg also discussed the hopes of fur having a value that makes it worth the trapper bringing the animal in. Ed mentioned the potential demand for the meat and that hopefully this would be an incentive also.

- **Comment:** (From buyer) It is hard to skin nutria w/o the tail.

- **Reply:** (Greg) Yes it is, another buyer has already mentioned this to him. (Ed) Alligator farmers are also interested in this for the meat. The same buyer also commented that he only bought 20,000 lbs. of meat last year. (Ed) We hope the meat will at least pay trappers expenses. Buyer replied that meat will pay for expenses at 10 cents/lb. He noted that trappers that sold meat always made more money than those that did not.

- **Meeting adjourned**.

General Notes for Coastwide Nutria Control Program
Public Meeting #4 June 27,2002 Houma, LA

- Meeting followed as per agenda.

- Approximately 70 trappers in attendance, Greg Linscombe, Ed Mouton, Noel Kinler and Tom Hess w/ LDWF, Paul Yakupzak w/ USFW, David Bourgeois w/ LSU Ag. Center, and Gene Loupe and Mike Carloss w/ NRCS.

- **Questions and Comments:**

- **Q:** (Paul Yakupzak/USFWS) What are trappers to do w/ the rest of the nutria (minus the tail)?

- **A**:(Greg Linscombe) Hopefully the entire nutria will be utilized (meat and fur). The meat for both human consumption and for alligator farmers. Greg stated that he believes fur dealers will be interested.

- **Q:** What about nutria w/ short tails?

- **A:** (Greg) If it is an obvious adult w/ a stub tail it will probably be paid for. Young nutria will not be paid for as per program rules.

- **Comment:** (Buyer) I believe the biggest mistake is to just receive tails, it should be for the entire nutria. Washington will be watching and if nutria (carcasses) are left in the marsh we will be in a big mess.

- **Reply:** (Greg) I believe this is somewhat true. LDWF cannot handle whole nutria. We are leaving it up to the landowners and hoping they will use the entire animal. We also need to show CWPPRA where these animals are coming from (in relation to eat out areas). I am hoping good trappers will be bringing the entire nutria out of the marsh.

- **Q:** (same buyer) How can a dealer handle all theses animals?

- **A:** (Greg) Four years ago we had 360,000 nutria and it was done. (Dealer is concerned that they will be put out of business). There were 13,000 to 20,000 nutria sold last year. "We" are almost out of business. Buyer responded that if we can't compete w/ Argentina, then we are out of business. A lot of nutria will make it to the dealer. Dealer responded that he knows some will be brought in, and that he will buy, but he is unsure of what the market will be.

- **Q:** Do nutria live in salt marsh? Does LDWF take salinities? Interested in Lake Boudreaux area.

- **A:** (Greg) Not really. We have seen them on barrier islands, but in general there are not many. Some LDWF fisheries people do take salinities and he advised him to contact LDWF at the Bourg Office for more information.

- **Q:** What's going on with nutria and higher salinities?

- **A:** (Greg) There are many changes occurring such as drought, etc. that affect salinities and populations.

- **Q:** Do nutria need marsh grass to eat?

- **A:** Yes, and specific types of vegetation. Droughts, floods, etc. affect nutria populations.

- **Q:** What about people trespassing to kill nutria. Will LDWF enforce this?

- **A:** (Greg) We don't perceive this to be a serious problem. How have you handled this in the past when prices were good? Lt. Richard Liner w/ Terrebonne Parish S.O. added that if anyone sees this they should get boat numbers from any potential trespassers and let LDWF enforcement handle it and that it would be dealt with appropriately. Greg added that if nutria show up from outside the project area, it is a violation and would be handled as such.

- **Q:** What about state land?

- **A:** (Greg) We have people assigned to these areas (refuges and WMA's). For other state land you would have to contact Office of State Lands. Also can find landowners of other property and discuss it w/ them.

- **Q:** What about shooting at night?

- **A:** (Greg) No, absolutely not. The same regulations are in effect as in the regular trapping season.

- **Greg** stated that participants would be notified as we approach 400,000 nutria.

- **Q:** Where can we get applications?

- **A:** At any LDWF field office in the project area.

- **Q:** Do you foresee any other countries interested in the fur?

- **A:** You would have to talk to the dealers. Mr. Pitre is in the audience.

- **Q:** As a large landowner, can we get the applications and fill them out for the trappers?

- **A:** (Greg) Yes, absolutely.
- **Q:** When will applications be available?
- **A:** Late summer. You will be notified of this.

Greg closed by saying that in the past we have not wasted nutria and he believes most trappers will bring out the entire animal.

Meeting adjourned.

General Notes for Coastwide Nutria Control Program
Public Meeting # 5 July 1, 2002 Chalmette, LA

- Meeting followed as per agenda.

- Approximately 40 trappers in attendance; Greg Linscombe w/ LDWF and Brian Clark (LDWF Enf.), Rusty Gaude w/ LSU Ag. Center, Brady Carter w/ DNR, Allan Bolotte and Mike Carloss w/ NRCS.

- **Questions and Comments:**

- **Q:** Where will you have to bring the tails?

- **A:** Greg Linscombe once again described the procedure.

- **Q:** Are there restrictions on number of acres?

- **A:** (Greg, answered all following questions) No, there is no quota. The more land you have the better. The land description is to make sure you have the land rights.

- **Q:** Even big landowners? (Inquiring as to whether large land owners had an advantage of some sort)

- **A:** There is no difference.

- **Q:** What if you miss the collection site for your area; can you go to another area the following day?

- **A:** Not sure. The information we receive from the trappers is critical to the program. CWPPRA agencies need this information to tie back to landowners and specific areas.

- **Q:** If I go to Venice to kill nutria, do I have to sell them there?

- **A:** No, you just have to identify where they came from.

- **Q:** Who qualifies for this?

- **A:** Anyone who purchases a trapper's license and has land.

- **Q:** Do you have to dry the hides?

- **A:** They're your hides. You will have complete use of the carcass to do as you please. We are just interested in the tails for this program. Most trappers will probably be using a .22 to take the nutria; if you use a shotgun you must use steel shot. We hope that most trappers will be bringing in the entire animal and utilize the fur and meat.
- **Meeting adjourned.**

General Notes for Coastwide Nutria Control Program
Public Meeting #6 July 2, 2002 Harvey, LA

- **Meeting followed as per agenda.**

- Approximately 50 trappers in attendance; Greg Linscombe, Ed Mouton, Jeff Marx w/LDWF and Alan Adams LDWF Enf.; Mark Schexnayder and Gerald Horst w/ LSU Ag. Center; Allan Bolotte and Mike Carloss w/ NRCS; the Mayor of Lafitte; and one writer w/ The Times Picayune.

- **Questions and Comments:**

- **Q:** Applications will be available the first of August?

- **A:** (Greg Linscombe answered all of the questions unless otherwise noted). The middle of August, but possibly earlier.

- **Q:** How will it be made available to us?

- **A:** You will be notified via the media and the applications will be available at all LDWF coastal field offices, possibly the LSU AG. Center areas and maybe on the web site. Mark Schexnayder added that we would make it available.

- **Q:** What about meat processors? (Gentleman from South America inquiring about meat availability, etc.)

- **A:** (Ed Mouton) In 1998 there was a CWPPRA project that had funds for experimenting on the human consumption issue with nutria meat. It basically paid 75-cents/lb. incentive for carcasses that were passed by an inspector. This is still available through 2003 (there is no incentive to trappers). Once the carcass is processed, there is another 75 cents/lb. Stage is set for industries like you to take this program to the next step. Greg added that if the meat program is going to have a chance, this is the year. We hope there is an interest in this. Alligator farmers can use the unsuitable meat.

- **Q:** How does Maryland propose to deal with their nutria problem?

- **A:** (Greg had mentioned during his presentation that the state of Maryland was attempting to eradicate nutria completely). Greg explained that this program in Maryland was funded in part by several federal agencies, USDA Wildlife Services and USFWS. They were attempting to trap the entire area out. The gentleman that asked the question mentioned a bounty, and Greg replied that he is calling it an incentive because he is hoping that trappers will take nutria out of the marsh for the fur and also maybe the meat.

Q: (Same gentleman) Our main concern is to eradicate nutria. I don't care about the rest of the animal. What is the priority, to get rid of nutria or provide fur?

- **A:** Priority is to get rid of nutria and reduce damage to the marsh and in the long term help the group (trappers) that have historically done this to be able to continue to do this. We have to report to five federal agencies, as Mike explained in his talk, where animals are coming from in relation to damaged areas.

- **Q:** Why 7 inches on tails?

- **A:** We don't want to pay for unborn nutria. We have measured tails and this seems to be the logical size.

- **Q:** What are regulations now for killing nutria, shooting, etc.?

- **A:** It depends on the land. If nutria are damaging agriculture or timber on private property, you can take them anytime and by any means. You need a permit during the closed season. Generally not for nighttime taking. Sept. 1 – Feb. 28 you can shoot w/ a trapper's license. This was the recreational season last year but there was not much participation. This season will still be in effect, but it is not included in this program. There is a LDWF agent in the audience if more information is needed.

- **Comment:** This is a nonnative animal, I suggest the landowner be able to kill them on his property. The Governor should ask the public to kill nutria when they see them.

- **Reply:** This was the concept for the recreational season. This is a potential problem for large landowners concerning liability. This again is not a typical CWPPRA project. Most CWPPRA projects have some type of construction associated with them.

- **Comment:** Northeastern people are different (referring to the Maryland project).

- **Reply:** This is true, that is why it is critical how the animals are handled (not leaving them in the field).

- **Q:** What about "bob" tails?

- **A:** Generally you have this after a severe freeze. We will decide if it is an adult and make the judgement call.

- **Q:** How do you get permission for property?

- **A:** You will have to go to the courthouse to research the owners or leaseholders and get permission and a copy of the tax receipt, etc.

Comment: We are loosing a traditional way of life and if we can get some of these trappers back it would be great. We need to help them out.

- **Reply:** This incentive should do this.

- **Comment:** Shooting nutria with shotgun while hunting, etc.

- **Reply:** If using a shotgun you must use steel shot; if shooting to kill and not to harvest. We are hoping that there will be no nutria left in the marsh.

- **Q:** Are there any qualifications to get a license?

- **A:** No.

- **Q:** Salvador WMA, how do you get permission?

- **A**: LDWF has trappers for these areas. You need to contact the land manger for specific areas to check if they may need additional trappers.

- **Q:** What about having distribution points at a fur buyer's shop?

- **A:** Not a fur buyer's shop. If trappers want to bring to a fur buyer first and then get the tails after they are skinned, then this needs to be worked out with the buyer. We are again encouraging trappers to bring all of the nutria out of the marsh.

- **Q:** What about buyers selling tails for the trappers?

- **A:** No, we need to have tails tied back to the property. If tails are found to not coincide with the property, you will be removed from the program.

- **Comment:** I think this will hurt the buyer.

- **Reply:** We think the majority of trappers will bring nutria out to make the additional money.

- **Comment:** A boat runs faster w/o tails.

- **Q:** Can you shoot from a moving boat?

- **A:** No, all laws currently in place will apply. There is an enforcement agent here and he can answer any questions relating to laws.

- **Q:** How many registered trappers did they have last year?

- **A:** We don't have a total yet, but about 1,000. We are hoping for about 3,000 this year.

Q: What about Wildlife Management Areas?

- **A:** These areas will be handled as they have been historically. Most WMA's have trappers assigned to these areas. You would have to contact the manager's of the WMA's, federal refuges, etc. if you were interested in finding out more information. The question came up about Biloxi WMA and Greg responded that this area was still trapped by the landowner.

- **Q:** (Mark Schexnayder) What information will they need for the application, a driver's license?

- **A:** Yes, a driver's license.

- **Q:** Will you have buyers and dealers information available?

- **A:** Yes, this will be made available.

- **Q:** Are you trying to find buyers?

- **A:** Yes, through the LA Fur and Alligator Advisory Council. Edible meat is still an option for selling.

- **Q:** Once you cut the tail off is the fur mine?

- **A:** Yes, it is yours to sell as is, or whatever you choose to do.

- **Q:** Can you have the buyer pay for tails?

- **A:** No, the furrier is not going to be able to turn in tails.

- **Q:** How will we be paid?

- **A:** We will process a check to the contractor and he will have to cut checks to the trappers. At this time we don't know how many people will be in this program. We are hoping you will receive your check in two to three weeks.

- **Q:** How do you freeze the tails w/o making a block?

- **A:** There are ways. You may want to get with some of the buyers in the audience. They could give you some ideas. You can also salt them, just don't stack when freezing. They need to be separated somehow.

- **Q:** As a buyer what about taking whole nutria from the trapper?

- **A:** This will be between you and the trapper to get the tails back to the owner. We have to keep the tail incentives separate from fur and meat. There may be problems with this, but this is a new project and changes can be made if needed.

- **Q:** How did you come up with 400,000?

- **A:** It was a combination of things. The Southwest has very little nutria currently, and this was mainly for the Southeast. But this could change and we wanted to incorporate the entire coastal area of the state. This way if problems arise in the SW, it will already be included in the project area. We needed to look at how much could we pay and how many animals? We looked at $5/animal and 500,00. We also looked at other CWPPRA projects and their costs. The $4 came from where the market is today and where it was in the last years we took over 400,000 nutria.

- **Q:** What are you going to do with the collected tails?

- **A:** They will either be destroyed or stored in a secure facility.

- **Meeting adjourned.**

Note: Several attendees left during the question and comments part because it was getting somewhat lengthy. Several of these people commented on the program as they left, as this being a very positive program and all appeared to be very supportive of it.

APPENDIX I

COST INFORMATION

Coastal Wetlands Conservation and Restoration Plan

Nutria Control Program (LA-3b) - Revised Cost for Phase I and Phase II Funding

Fully Funded Costs Total Fully Funded Costs $68,864,900 $68,864,870 Amortized Costs $6,065,024

Year		Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
Phase I												
0	0.000	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
4	0.969	2000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3	1.000	2001	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2	1.032	2002	$0	$30,960	$92,880	$46,440	$684	$98,246	$0	$0	$0	$269,211
		TOTAL	$0	$30,960	$92,880	$46,440	$684	$98,246	$0	$0	$0	$269,211
Phase II												
4	0.969	2000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3	1.000	2001	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2	1.032	2002	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
1	1.065	2003	$0	$0	$18,900	$88,350	$706	$125,129	$0	$472,500	$1,890,000	$2,595,585
		TOTAL	$0	$0	$18,900	$88,350	$706	$125,129	$0	$472,500	$1,890,000	$2,595,585
Total Cost			$0	$31,000	$111,800	$134,800	$1,400	$223,400	$0	$472,500	$1,890,000	$2,864,800

Year		FY	Monitoring	O&M	Corps PM	Other
-1	1.099	2004	$118,813	$2,378,237	$729	
-2	1.134	2005	$122,615	$2,389,061	$752	
-3	1.171	2006	$126,539	$2,400,231	$776	
-4	1.208	2007	$130,588	$2,411,758	$801	
-5	1.247	2008	$146,472	$2,949,550	$827	
-6	1.287	2009	$139,080	$2,945,931	$853	
-7	1.328	2010	$143,530	$2,958,601	$881	
-8	1.370	2011	$148,123	$2,971,677	$909	
-9	1.414	2012	$152,863	$2,985,170	$938	
-10	1.459	2013	$171,456	$3,648,861	$968	
-11	1.506	2014	$162,803	$3,523,467	$999	
-12	1.554	2015	$168,012	$3,538,298	$1,031	
-13	1.604	2016	$173,389	$3,553,603	$1,064	
-14	1.655	2017	$178,937	$3,569,398	$1,098	
-15	1.708	2018	$200,702	$4,117,480	$1,133	
-16	1.763	2019	$190,573	$4,112,522	$1,169	
-17	1.819	2020	$196,671	$4,129,882	$1,207	
-18	1.878	2021	$202,964	$4,147,799	$1,245	
-19	1.938	2022	$209,459	$4,166,288	$1,291	
-20	2.000	2023	$0	$0	$0	
		Total	$3,083,590	$62,897,814	$18,670	$0