

**Internal Review Copy
5-2010**

Draft Feral Hog Management Plan

Decision Documents

for

**Sabine National Wildlife Refuge
Draft 2010**

Contents

1. FONSI
2. Draft Feral Hog Management Plan
3. Draft Environmental Assessment
4. Appropriateness
5. Compatibility Determination
6. Support Letter From State -To Be Provided
7. News Release – To be Provided

DRAFT FERAL HOG MANAGEMENT PLAN

UNITED STATES FISH AND WILDLIFE SERVICE

SNWR

2010

Recommended by _____ Date: _____
Refuge Manager

Reviewed by _____ Date: _____
Refuge Supervisor

Concurrence by _____ Date: _____
Regional Chief, NWRS

Approved: _____ Date: _____
Regional Director

TABLE OF CONTENTS

	PAGE
I. INTRODUCTION.....	4
II. CONFORMANCE WITH STATUTORY AUTHORITIES.....	8
III. STATEMENT OF OBJECTIVES.....	10
IV. ASSESSMENT.....	11
V. DESCRIPTION OF HOG MANAGEMENT PROGRAM.....	12
VI. MEASURES TAKEN TO AVOID CONFLICTS WITH OTHER MANAGEMENT OBJECTIVES.....	14
VII. CONDUCT OF THE PLAN.....	15

I. INTRODUCTION

During 2007 the U S Fish and Wildlife Service (USFWS) completed the Sabine National Wildlife Refuge (SNWR) Comprehensive Conservation Plan and Environmental Assessment (SCCP). The SCCP took nearly 5 years to complete and went through an extensive public scoping and public comment process. The SCCP address the need to control hogs through an animal control plan. This effort will bring the USFWS into compliance with the SCCP and provide the tools needed to begin aggressive control efforts.

Located in the southwest corner of Cameron Parish Louisiana, SNWR is a vital link in the National Wildlife Refuge System. The refuge was established in 1937 and is the largest coastal marsh refuge on the Gulf of Mexico and encompasses 125,790 acres of fresh, brackish, and saline coastal marshes which are interspersed with low prairie ridges. The refuge consists of approximately 40,403 acres of open water and 85,387 acres of marsh grassland. Calcasieu Lake transects the refuge on the east, while Sabine Lake adjoins it on the west. The refuge is located in Cameron Parish which is situated in the extreme southwest corner of Louisiana (See Figure 1). Agricultural lands are north of the refuge and the Gulf of Mexico lays 5 miles south of the refuge. State Highway 27, the only road access to the refuge, parallels the west shore of Calcasieu Lake for 11 miles as it crosses the refuge.

The refuge is a primary link in the chain of refuges making up the National Wildlife Refuge System. It is a terminus for migratory waterfowl of both the Mississippi and Central Flyways and is of major importance to wintering lesser snow geese, gadwall, green-winged teal, widgeon, and pintail. Other wildlife of major importance found on the refuge includes the American Alligator, many furbearing animals, and numerous species of wading, water, and marsh birds.

Three freshwater impoundments contain a total of 33,729 acres. The remaining 92,061 acres of the refuge are of major significance as an estuarine nursery area for many important species of marine organisms. The refuge has over 100 miles of canals and almost 50 miles of bayous bisecting it. These waterways are used by estuarine dependent species to migrate into and out of the nursery areas on the refuge.

Historically, The primary management objective of SNWR is to maintain and perpetuate Gulf Coast wetlands for wintering waterfowl from the Mississippi and Central Flyways. Wetlands are maintained using prescribed burning and water level manipulation. There are more than 115 miles of canals, 61 miles of levees, and 8 water control structures that are part of the complex water management operation. Major issues involve restoration of approximately 42,000 acres of marsh habitat for migrating birds, maintaining aquatic conditions for saltwater and freshwater fisheries, and regulation of gas and oil exploration and production activities. SNWR is an integral part of a national scenic byway which is the Creole Nature Trail All-American Road and is visited by more than 280,000 people annually. The Refuge's fishing/crabbing and, waterfowl hunting opportunities and the walking trails at SNWR are considered one of the principal visitor attractions in southwest Louisiana.

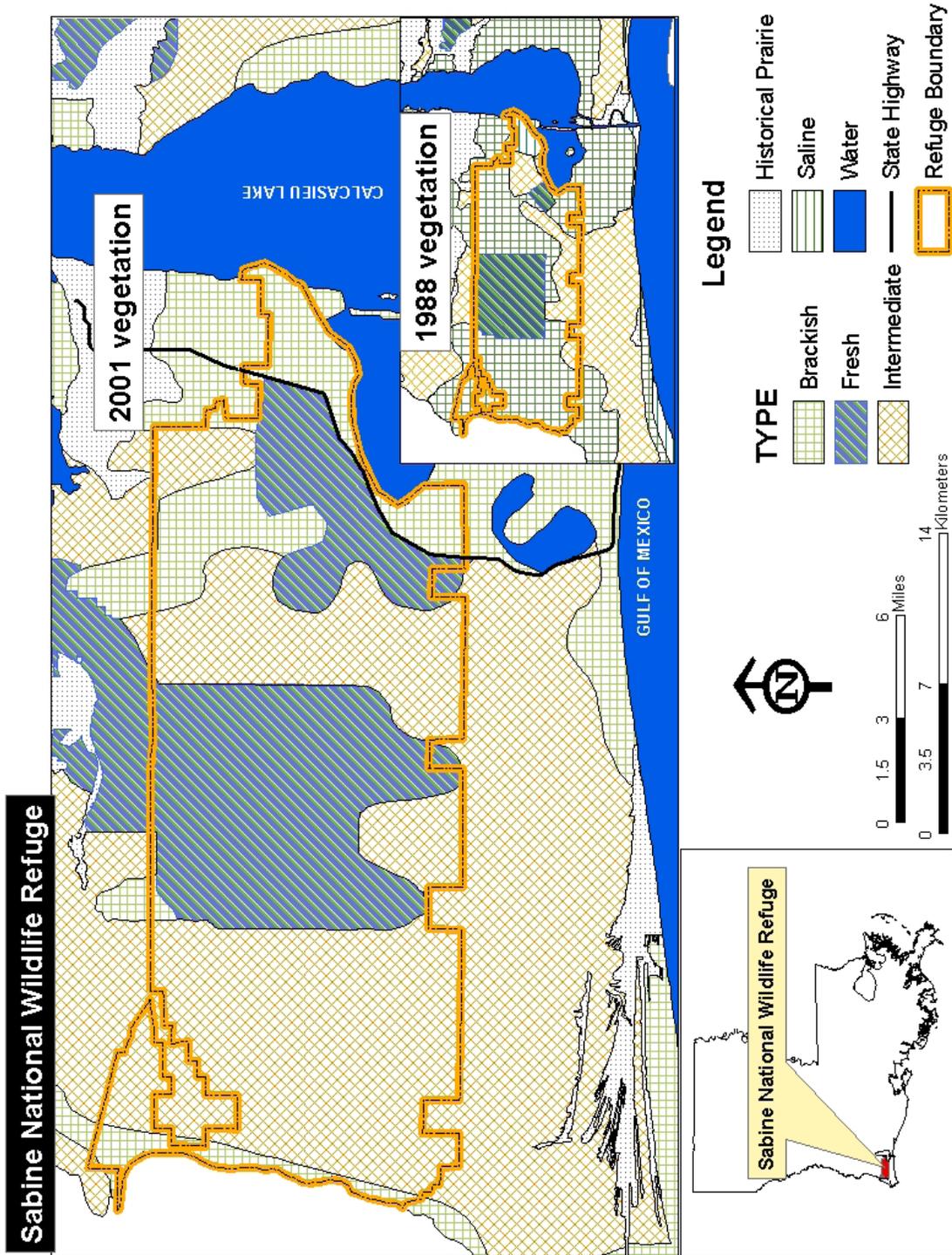
SNWR boasts more than 250 bird species, 132 fish species, 36 reptile and amphibian species, and 28 mammal species. This diversity exists in spite of ongoing habitat changes on the refuge. Plant species composition has changed from an expansive area of emergent marsh dominated by sawgrass (*Cladium jamacense*) to an area largely composed of shallow open water ponds and slowly eroding land dominated by saltmeadow cordgrass (*Spartina patens*); seashore paspalum (*Paspalum vaginatum*); Olney's three-square (*Scirpus olneyi*); and common reed (*Phragmites australis*) present today (Valentine 1979). This has been caused by changes in the salinity regime and water retention time on the refuge. Records indicate that the sawgrass die-off at Sabine occurred after the large tidal surge of Hurricane Audrey in 1957, which was followed by two years of drought. Dumping of oil field production waters (salinities of 200 parts per thousand) into the marsh has also been blamed for the die-off. Habitat shift analysis has shown that while the species composition may have changed, there has not been a basin-wide shift to a more saline environment since 1949 (Louisiana Coastal Wetlands Conservation and Restoration Task Force 2002). What has not changed is that waterfowl still flock to the refuge, but they are concentrated in the freshwater impoundments.

Areas in coastal southwest Louisiana outside of freshwater impoundment have experienced changes in vegetation (see Figure 2) due to increased salinity and freshwater retention time, according to surveys dating back to 1949 (O'Neil 1949). The increased salinity can be attributed to navigation channels and their maintenance, primarily the Calcasieu Ship Channel into nearby Calcasieu Lake. These channels allow salt water from the Gulf of Mexico into the marsh faster than fresh water can flow into it. Between 1875 and 1910, Calcasieu Lake salinities were low enough for the water to be used to irrigate rice, which cannot tolerate salinities over 0.6 parts per thousand (Louisiana Coastal Wetlands Conservation and Restoration Task Force 2002). Today, the average water salinity of Calcasieu Lake is between 8 and 12 ppt.

The other major factor contributing to shifting vegetation is canals and their associated spoil banks impeding the north-south flow of fresher water over the marsh. Combined with drought conditions, this can cause areas with salinities to more than double in some instances. Three areas of the refuge were impounded to prevent saltwater intrusion and lessen drought-induced salinity shifts in those areas.

The three impounded freshwater marsh management units are dominated by bulltongue (*Sagittaria spp.*), water shield (*Brasenia schreberi*), white water-lily (*Nymphaea odorata*), spikerush (*Eleocharis spp.*), cattails (*Typha spp.*) and bulrushes (*Scirpus spp.*). Open water areas throughout the refuge host a variety of submerged aquatics that assist with marsh stabilization, add to detritus build-up, and provide food for waterfowl. Widgeon grass (*Ruppia maritime*), coontail (*Ceratophyllum demersum*), southern naiad (*Najas quadalupensis*), common bladderwort (*Utricularia vulgaris*), fanwort (*Cabomba caroliniana*), Eurasian milfoil (*Myriophyllum spicatum*) and Ottelia (*Ottelia alismoides*) line the shallow areas along canals and bayous, in addition to occupying large expanses of open water. Over 25 acres in Management Unit 3 are inhabited by wild celery (*Vallisneria americana*), an important food of wintering canvasbacks. Vegetative species that occur on drier upland sites such as ridges and levees include Chinese tallow (*Sapium sebiferum*), groundsel-tree (*Baccharis halimifolia*), live oak (*Quercus virginiana*), rattlebox (*Sesbania drummondii*), black willow (*Salix nigra*),

Figure 2. Vegetation of SNWR



II. CONFORMANCE WITH STATUTORY AUTHORITY

The U.S. Fish and Wildlife Service maintain the policy of managing feral animals on refuges where it is compatible with the purposes for which the refuge was established. The following laws, regulations, and Executive Orders relate to the management of feral animals on Federal lands:

1. The National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997, permits the uses of refuges provided that the proposed use is compatible with the primary purpose for which a refuge was established.
2. The Refuge Recreation Act of 1962, as amended, authorizes public hunting on refuges where the hunting program is compatible with the other major purposes for which the area was established.
3. The Fish and Wildlife Act of 1956, as amended, authorizes development, advancement, management, conservation, and protection of fish and wildlife resources.
4. Executive Order 12996, "Management and General Public Use of the National Wildlife Refuge System" recognizes compatible wildlife-dependent recreational activities involving hunting, among others, as priority general public uses of the National Wildlife Refuge System.
5. Title 50 CFR, Section 31.2 lists hunting as a method of surplus wildlife population control.
6. Title 50 CFR, Part 31, Section 14: (a) Animal species which are surplus or detrimental to the management program of a wildlife area may be taken in accordance with federal and state laws and regulations by federal or state personnel or by permit issued to private individuals. (b) Animal species which damage or destroy federal property within a wildlife refuge area may be taken or destroyed by federal personnel.
7. Title 50 CFR, Part 30, Section 11 (a) states that feral animals, including horses, burros, cattle, swine, sheep, goats, reindeer, dogs, and cats, without ownership that have reverted to the wild from a domestic state may be taken by authorized federal or state personnel or by private persons operating under permit in accordance with applicable provisions of federal or state law or regulation.
8. Executive Order 13112 (Federal Register/ Vol. 64 No. 25 / Monday, Feb. 8, 1999/ Presidential Documents 6183) states in Sec. 2. Federal Agency Duties. that we should; (i) detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner; (ii) monitor invasive species populations accurately and reliably; (iii) provide for restoration of native species

and habitat conditions in ecosystems that have been invaded; (iv) conduct research on invasive species and develop technologies to prevent introduction and provide for environmentally sound control of invasive species.

9. Title 50 CFR 32.1 states that the opening of a wildlife refuge area to hunting will be dependent upon the provisions of law applicable to the area and upon a determination by the Secretary of the Interior that the opening of the area to hunting of migratory game birds, upland game, or big game will be compatible with the principles of sound wildlife management and will otherwise be in the public interest.
10. Title 50 CFR 32.2 provides provisions which apply to each person while engaged in public hunting on a wildlife refuge.

The purposes of SNWR are:

Executive Order 7764 , dated December 6, 1937 stated the official purpose of the refuge, "...as a refuge and breeding ground for migratory birds and other wildlife." A secondary purpose of the refuge is "*...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds*" (16 U.S.C. 715d (Migratory Bird Conservation Act)).

The mission of the U.S. Fish & Wildlife Service is:

"...working with others to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of the American people."

In addition to the overall mission of the Service, the National Wildlife Refuge System also has its own mission as set forth by congress in the National Wildlife Refuge System Improvement Act of 1997. It is as follows:

"...to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans."

III. STATEMENT OF OBJECTIVES

The management goals for SNWR are to (USFWS 2007)

- maintain and perpetuate refuge wetlands for wintering waterfowl
- provide for the needs of endangered plants and animals;
- allow compatible public uses, such as hunting, fishing, trapping, wildlife observation, and photography; and
- promote research on marsh and aquatic wildlife

Program Objective and Strategies

Objective

Intensively control feral hog populations by 95% to aid in achieving habitat management goals identified in the SCCP.

Discussion

The purpose of controlling feral hogs is to protect 125,790 acres of fresh, intermediate and brackish refuge marshes from feral hog (*Sus scrofa*) induced erosion, mottled duck and other native species habitat destruction and avian nesting mortality. Currently and in past years, feral hogs have roamed at large on private property adjacent to SNWR and have gone unchecked and unmanaged. The rapidly expanding distribution of feral hogs in the United States has caused great concern for many land and resource managers (See Figure 1 in the SNWR Feral Hog Management Plan Environmental Assessment). The ecologically-rich marshes of SNWR have not been immune to the invasion of these animals. cursory observations suggest accelerated increases over the last few years. Feral hogs are omnivores devouring flora and fauna alike.

Marsh habitat, throughout SNWR, has been compromised because of extensive rooting (foraging for food) by feral hogs. Since 1990, feral hog sightings have been primarily reported on the western side of SNWR known as Marceaux Island. Marceaux Island is an area of concern, as it has been designated as “Marceaux Island Prairie Natural Area” by the Louisiana Department of Wildlife and Fisheries as well as the Louisiana Natural Heritage Foundation, based on the existence of remnant prairie habitat. Since, SNWR was established in 1937: “...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds...” (16 U.S.C. 715d (Migratory Bird Conservation Act)) and “...as a refuge and breeding ground for migratory birds and other wildlife...” (16 U.S.C. 715e (Migratory Bird Conservation Act)), controlling the feral hog population in this sensitive area and throughout the Refuge should be a priority. Authority to control wildlife populations for management is governed by title 50 CFR, Part 31, Section 14:

Strategies:

- 1) Initial Treatment - Aerial gunning (from a helicopter) operations conducted by USDA Wildlife Services (WS) as requested by USFWS personnel;
- 2) Secondary tool- Public hunting regulated by Special Use Permit;
- 3) Secondary tool -Ground shooting near feeders by USFWS personnel and/or USDA (WS) ;
- 4) Secondary tool - Corral trapping conducted by USFWS personnel and/or USDA (WS), followed by on-site euthanasia.

IV. ASSESSMENT

1. Compatibility with Refuge Objectives

The strategies identified to aid in the control of feral hogs are consistent with the goals and objectives associated with the SCCP Habitat Goals and Undesirable Animals Objectives and Strategies.

2. Biological Soundness

The purpose of controlling feral hogs is to protect 125,790 acres of fresh, intermediate and brackish refuge marshes from feral hog (*Sus scrofa*) induced erosion, mottled duck and other native species habitat destruction and avian nesting mortality. Currently and in past years, feral hogs have roamed at large on private property adjacent to SNWR and have gone unchecked and unmanaged. The rapidly expanding distribution of feral hogs in the United States has caused great concern for many land and resource managers. The ecologically-rich marshes of SNWR have not been immune to the invasion of these animals. cursory observations suggest accelerated increases over the last few years. Feral hogs are omnivores devouring flora and fauna alike.

According to the Louisiana State University Agricultural Center, feral hog populations are growing and expanding in the state and throughout the southeastern states. Hogs are becoming one of the most serious concerns for wildlife managers. They root up food plots, eat the corn at feeders, tear up hardwood stands looking for acorns, and scare other wildlife away. Hogs also prey on young wildlife, compete with wildlife, carry diseases and pollute streams. Feral hogs damage forest regeneration and other agricultural crops like sugarcane, corn and rice (LSU AgCenter).

Feral hogs are a result of domestic hogs that have been released or a hybrid of domestic hogs and introduced Russian boars. Feral hogs are adaptable to a wide range of habitats -- from piney woods to bottomland hardwoods and even marshlands. Their average size is 100 to 150 pounds, but they can reach over 400 pounds.

Feral hogs are the most prolific exotic mammal in North America with the population able to double in four months. Sows breed throughout the year or seasonally beginning at eight to 10 months of age. They can produce two litters every 12 to 18 months with an average of four to eight piglets per litter. Older sows may have litters of 10 to 13.

Feral hogs carry many diseases that can transmit to humans. Brucellosis is the most dangerous but also the most preventable disease. The disease causes Undulant Fever in humans, which can result in fever, orchitis or oophoritis. Treatment can last for months, and the problems can re-occur at any time. The disease is contracted when butchering or handling the meat of feral hogs. The simple solution is to wear rubber or latex gloves when processing a hog or handling uncooked meat. Properly cooked meat is safe to eat (LSU AgCenter).

Many biologists and wildlife managers recommended trapping or shooting as the best control methods. Feral hogs are considered unregulated quadrupeds in Louisiana. They can be shot by anyone with a legal hunting license during legal daylight shooting hours year-round.

3. Economic Feasibility

Annual administration costs associated with the Hog Control Program include salary, equipment, contract support with USDA Wildlife Services, hunt area boundary and sign maintenance, fuel, etc. A cost of approximately \$70K will be required once every 5 years for initial and potential follow control operations using USDA Wildlife Services. After action follow-up tools will be implemented as appropriate. It is anticipated that normal operations using follow-up tools would cost approximately \$40K per year during any given year after initial treatment is performed. When public hunting is used hunts will be administered by refuge personnel and partners such as the LDWF. It is anticipated that existing funding sources available to the Southwest Louisiana National Wildlife Refuge Complex are adequate to implement this plan.

4. Relationship with other Refuge Programs

The proposed program will not cause any major conflicts with non-consumptive users. All control operations will be conducted during low public use periods. Non-consumptive users on the refuge during control operations are generally relegated to public areas in the vicinity of the boat launches along the state highway that passes through the refuge.

5. Recreational Opportunity

The nature and vast size of SNWR dictates that much of the area will be under-utilized as compared to other areas its size when the public hunting tool is used as a control measure. Several factors contribute to this situation. Foremost, the refuge and its hog control areas are primarily tidal marsh with varying water levels. Tidal marsh conditions make access very challenging and sometimes difficult. The organic layers associated with the marsh makes accessing the control areas on foot very difficult. Hurricanes Rita and Ike left their impacts (2005 and 2008 respectively) that also negatively affected routes of travel with storm debris. Although a road (Vastar Road) has been established to help improve public access, most of the refuge is still, at times, is difficult to traverse.

V. DESCRIPTION OF FERAL HOG MANAGEMENT PROGRAM

Aerial Gunning: Aerial gunning accounted for over thirty-five percent of the feral hogs taken by the USDA Wildlife Service during a 1998 field investigation (TWDMS Annual Report, 1998). In Texas, helicopters are the primary aircraft used for aerial control of feral hogs. This is a very selective method and depredation problems can be stopped quickly. Large numbers of feral hogs can be taken in a single aerial control operation (Mapston 1997).

During October, 2007, an experimental project was initiated by Southwest Louisiana NWR Complex/WS (Wildlife Services, USDA) focused on feral swine removal from refuge property. Methods authorized for this project included corral traps, snares, night shooting, ground shooting near feeders, and aerial hunting via a helicopter owned by WS. WS also collected blood serum from some of the collected animals in support of a national disease surveillance program for classical swine fever (CSF), swine brucellosis (SW), and pseudorabies (PRB). A total of 223 hogs were taken from October 2007 through September 2008. Fourteen feral swine were tested for Classical Swine Fever (CSF), Swine Brucellosis (SB), and Pseudorabies (PRV). Of these samples six tested positive for PRV; and all tested negative for both CSF and SB.

Based on the 2007 experience, limited accessibility to the SNWR and studies conducted in Texas, aerial gunning will be the first method used to immediately and significantly set back population levels which can then be controlled by other tools as needed. It is anticipated that aerial gunning may be needed once every three to five years to address the encroachment of feral hogs from adjacent private lands if follow up tools such as public hunting, professional shooting by USFWS staff or trapping is not successful. All aerial control activities will be accomplished through a cooperative agreement with USDA-Wildlife Services and performed in accordance with the Department of Interior Aerial, Capture Eradication and Tagging of Animals (ACETA) Handbook (351 DM-2-351 DM 3). USFWS personnel will not participate in this operation (see attached Environmental Assessment). A pre-treatment survey will be conducted in an effort to determine hog densities in targeted areas prior to aerial gunning. After aerial gunning the USFWS will then initiate an aerial population assessment survey. If the 95% population eradication objective is not met then the USFWS will move forward with the secondary tools identified below. If the objective is met the USFWS may still move forward with secondary measures in an effort to continue to keep hog populations at the desired level in an effort to reduce the more costly aerial gunning technique in the future.

Public Hunting: Public hunting on National Wildlife Refuges, state wildlife management areas and private lands has been a time honored method of attempting to control feral hogs throughout the United States. However, this tool usually needs to be used in conjunction with other tools to effectively reduce numbers and to achieve long term eradication of feral hogs within a given geographical area.

Hunting with dogs is an ancient control method that can be effective for feral hogs. Many factors come into play for this method to be successful. The experience of the dogs, the hunter, and the hogs are all important. There are a wide variety of opinions on the best hog dog breeds, dog characteristics, and training of hog dogs. Many different breeds and cross breeds of dogs have proven satisfactory to hunters (Littauer, 1993). Over four percent of the hogs taken in a Texas state program were taken with the use of dogs in FY 1998 (TWDMS Annual Report, 1998). A limited number of dogs may be permitted during the public hunt on the Refuge. Permittees will be granted a multi day permit during specific periods of time and during selected seasons to attempt to take as many hogs as possible during their permit period. All hogs removed from the refuge must be dead. Permittees will be selected by a drawing or other method to be decided upon yearly based on the effectiveness of the overall process.

Shooting at feeders: Hogs can be shot when the opportunity arises by USFWS/WS personnel but, this usually will not reduce the population to a great extent. Ground shooting might be effective if it is intensive and if the hog population is small (Texas A&M). Shooting techniques for feral hog are essentially the same as those for white-tailed deer. Stand hunting or still hunting can be conducted in baited areas or at feeders. As feral hogs are attracted to supplemental feeding sites and feeders, these can be prime areas for taking feral hogs. However, feral hogs are very intelligent and can be a challenging foe. Intensive hunting may cause feral hogs to shift their home range or become more nocturnal. When this happens, hogs can be shot at night using a spotlight with a red filter. It is recognized that extended baiting for purposes of shooting or trapping could have an unintended positive effect on hogs by way of supplemental feeding. Care will be taken to keep baiting short-term. Bait will be removed from the targeted area after each period of time hogs are being taken by hunters or other authorized individuals.

Trapping: These devices can be used as lethal control method. Most designs are based on a basic box shape with some type of a gate door (Littauer, 1993). They may be used for single or multiple animal catches. Corrals or traps may have spring-loaded gates (Taylor, 1991), trip gates, drop gates, or hinged gates depending upon the trap-maker's preference (Littauer, 1993). The TWDMS uses a cage trap made of heavy gauge stock panels welded to a steel tubing frame to make it rigid. Four panels are wired together to make a pen if a large trap is needed. Smaller and more portable traps are made with all parts welded together making a permanent pen. The gate consists of a rectangular hinged door, hinged at the top to allow the hogs to "root" the door open and allow access into the trap. Once inside a trapped hog will generally attract others who push the gate open and enter (Littauer, 1993). Bait is needed to attract hogs to the trap. Soured grain, usually fermented corn, is highly preferred bait. Carrion can be used but is more effective in the cool season. Prebaiting the trap is important in order to achieve the maximum effectiveness of a cage trap. Letting the hogs become comfortable in and around the trap greatly increases the chance for multiple catches. The availability of natural foods may decrease attractiveness of trap baits and hence will hinder trap success. This is particularly true in the warm months of the year (Littauer, 1993).

VI. MEASURES TAKEN TO AVOID CONFLICTS WITH OTHER MANAGEMENT OBJECTIVES

A. Biological Conflicts

Refer to Decision Document Package, Environmental Assessment (attached).

B. Public Use Conflicts

Hog control operations may overlap with sport fishing and migratory bird hunting to some degree during control activities however; all efforts will be made to avoid the peak fishing and migratory bird hunting time period. Most control efforts be outside the designated migratory bird hunting area. The demand for non-consumptive wildlife oriented use on SNWR is expected to be high. Conflicts between hog control personnel and non-consumptive users may occur. Restrictions on taking methods and restrictions on taking hogs near designated public use facilities, canals and

trails should aid in reducing potential conflicts. Should serious conflicts arise, considerations will be given to time and space scheduling and/or zoning.

The demand for consumptive uses is also expected to be high from March 15 through October 15. While conflicts within user groups are expected to be minimal, it may occur. To mitigate potential conflicts, when the hunting tool is use it will limit the number of users through a lottery, Special Use Permit system and through time and space scheduling and/or zoning.

C. Administrative Conflicts

Staffing and funding is available to administer this program. Actions will not be encumbered with unnecessary procedures requiring funds and manpower to enforce. The only considerations to be observed will be procedures to ensure that the resources are not damaged, that participants are assured of safety and experience a quality hunt. Presently, little labor intensive data is collected during the hunts. SNWR wildlife and recreational management programs are administered utilizing current personnel and funds allocated to the Southwest Louisiana National Wildlife Refuge Complex. Special Use permit conditions will be made as simple as possible, if needed, in order to minimize the personnel and funding needed to administer the hunt program. Staggered tours of duty by law enforcement personnel minimize staffing shortages. Assistance may be sought from other refuges and from state personnel if serious conflicts arise.

VII. CONDUCT OF THE HOG CONTROL PROGRAM

Federal Register Publication

Not required – Hog control will be regulated through contracts and special use permits.

A. Refuge-specific Special Use Permit conditions when hunting is used as a tool

The hog management program provides for the use of four tools. The only tool requiring specific public restrictions would be the public hunting tool which will be regulated by a special use permit issued by the USFWS. The custom of Special Use permits to regulate hunting for specialized hunts is a time honored program that has been successfully implemented for alligator hunting within the Southwest Louisiana NWRC for over two decades.

An example of some of the special conditions that would be in the special use permit are as follows:

1. The *Permittee* must furnish his or her own hunting equipment prior to the hunt.
2. No alcohol may be in possession while on the refuge. No littering of any sort on National Wildlife Refuges, carry all trash and waste out.

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3. Refuge managers have the authority to cancel this permit at any time. Violation of any federal, state, or refuge regulation, or special condition will result in immediate cancellation of the *Special Use Permit (SUP)*.
 4. There is no size limit to any mudboats, go-devils, or outboard motors while scouting or during the hunting season; no airboats are allowed. Access will be defined by the refuge manager.
 5. Boats operated before sunrise and after sunset must have proper running lights.
 6. Each *Permittee* must personally hunt their assigned unit each morning and begin harvesting hogs at official sunrise (nighttime hunting is prohibited unless explicitly authorized by the Refuge Manager).
 7. In case of illness or injury to the *Permittee*, a designated assistant may hunt the unit for the *Permittee* with prior approval from the refuge manager.
 8. Authorized Firearms to dispatch hogs will include shotguns, muzzleloaders and center fire handguns. Extreme caution must be exercised when using firearms.
 9. Hunters will attempt to kill all hogs encountered. No “high grading” is allowed. All hogs removed from the refuge must be dead.
 10. Each *Permittee* must report the number of hogs killed and their location once there permit period expires.
 11. Each *Permittee* must remove all sets, markers, boats, trailers, or other gear within twenty-four hours of season closure
 12. Hunters are allowed to leave a maximum of two boats with equipment on the refuge while hunting. The refuge is not responsible for theft or damage.
 13. Permittee may not sell, barter, or gain any other economic benefit from this hunt other than the sale of the alligators, taken by the *Permittee* and their approved assistants, to State authorized processors.

B. Anticipated Public Reaction to the Program

During 2007 the U S Fish and Wildlife Service completed the SNWR Comprehensive Conservation Plan and Environmental Assessment (SCCP). The Sabine SCCP took nearly 5 years to complete and went through an extensive public scoping and public comment process. Feral Hog removal never surfaced as a major negative issue in the SCCP.

C. Hunter Application and Registration Procedures

This is only applicable to the Public Hunting Tool. The process will occur in the same manner as the Alligator Hunting program currently managed on the refuge which is through a lottery process.

D. Media Selection for Announcing and Publicizing the Hunt

A 30 day public review and comment process has been announced via a U S Fish and Wildlife Service News Release. The draft environmental assessment can be found on the internet at <http://www.fws.gov.swlarefugecomplex> or by contacting the Southwest Louisiana National Wildlife Refuge Complex at 337-598-2216.

Literature Cited

Annual Report, 1988. Texas Wildlife Damage Management Service, San Antonio.

Compendium for Resource Managers. Texas Agricultural Extension Service, San Angelo. PP 139-148.

Littauer, Gary A., 1993. Control Techniques for Feral Hogs, Feral Swine: A

Louisiana Coastal Wetlands Conservation and Restoration Task Force. 2002. Hydrologic

Louisiana State University Agriculture Center, 2009. From Web Site Agriculture & Natural Resources, Updated November 9, 2009

Investigation of the Louisiana Chenier Plain. Baton Rouge, Louisiana: Louisiana Department of Natural Resources, Coastal Restoration Division. 135 pp. plus appendices.

Mapston, Mark E., 1997. Feral Hog Control in Texas, Proceedings National Feral Swine Symposium, Industry Section, Riverdale. PP 1-3.

O'Neil, T. 1949. The muskrat in Louisiana coastal marshes. Louisiana Department of Wildlife and Fisheries, Baton Rouge, Louisiana.

Taylor, Rick, 1991. The Feral Hog in Texas, Texas Parks and Wildlife Department Federal Aid Report Series Number 28, Austin. 20 PP.

Texas A&M . Feral Hogs in Texas ,Cooperative Extension Publication B-6149, 5-04

U. S. Fish and Wildlife Service. 1996. Final Environmental Assessment of Alligator Harvest Methods on SNWR. SNWR, Hackberry, Louisiana.

Valentine, J. M. 1979. An evaluation of the proposed water control structures on water quality, vegetation, estuarine-dependent fisheries, and other wildlife-Appendix L.U.S. Fish and Wildlife Service.