

**Anahuac National Wildlife Refuge
Dove Hunt Plan**

September 2015

**U.S. Fish and Wildlife Service
Anahuac National Wildlife Refuge
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ANAHUAC NATIONAL WILDLIFE REFUGE DOVE HUNTING PLAN

I. Introduction

Anahuac National Wildlife Refuge (Anahuac NWR) was established by the Federal Property and Administrative Service Act of 1949 (40 U.S.C. 471-535), as amended; Fish and Wildlife Coordination Act of 1934 (16 U.S.C. 661-666c) as amended; Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j Stat. 1119) as amended; the Act of May 19, 1948, Public Law 80-537 (16 U.S.C. 667b-667d; 62 Stat. 240) as amended; and The National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended.

In order to meet specific Refuge and other broader U.S. Fish and Wildlife Service (Service) directives, the following purposes were established for Anahuac NWR:

The Refuge's official purpose statement is:

"... the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions..." 16 U.S.C. 3901(b), 100 Sta. 3583 (Emergency Wetlands Resources Act);

"...suitable for—(1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species..." 16 U.S.C. 460K-1 (Refuge Recreation Act); and, "...for the conservation, maintenance, and management of wildlife, resources thereof, and its habitat thereon,..." 16 U.S.C. 661-667e (Fish and Wildlife Coordination Act).

Anahuac NWR is located in southeastern Texas and is part of the Texas Chenier Plain National Wildlife Refuge Complex (Refuge Complex). It is composed of coastal marshes and prairies adjacent to the northeastern portion of Galveston Bay. Anahuac NWR was established to preserve and protect migratory birds and other native fish and wildlife and the habitats upon which they depend. Anahuac NWR contains important coastal habitats and teems with an abundance of wildlife including waterfowl, shorebirds, wading birds and other migratory birds, and a thriving population of American alligators.

The Anahuac NWR was established on February 27, 1963, under the authority of the Migratory Bird Conservation Act (16 U.S.C. 715d), "...for use as an inviolate sanctuary, and for any other management purposes, for migratory birds." The Refuge Complex is administered by the Service, U.S. Department of the Interior, as a unit of the National Wildlife Refuge System. Lands or certain interests in lands added to the Refuge Complex since their original establishment were also acquired under the authority of the Migratory Bird Conservation Act, with the same establishment purpose.

Public hunts on Anahuac NWR began in 1980, with the introduction of waterfowl hunting on the Pace Tract. Water fowl hunting areas on the East unit and the Middleton unit were added in later years as more refuge lands were purchased. This hunt provides the visitor with an additional

recreational hunting opportunity where hunting on public land is limited. We will be adding white-winged, Eurasian collared, rock pigeon and mourning dove to the hunting program on areas of the east unit that are adjacent to the waterfowl hunting areas. The waterfowl and dove hunting areas do not overlap.

II. Conformance with Statutory Authorities

The Refuge Recreation Act of 1962 (16 U.S.C. 460K) authorizes the Secretary of the Interior to administer refuges, hatcheries, and other conservation areas for recreational use. The Refuge Recreation Act requires 1) that any recreational use permitted will not interfere with the primary purpose for which the area was established; and 2) that funds are available for the development, operation, and maintenance of the permitted forms of recreation.

Fundamental to the management of lands within the National Wildlife Refuge System (System) is the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57), an amendment to the National Wildlife Refuge System Administration Act of 1966. The National Wildlife Refuge System Improvement Act of 1997 provided a mission for the System and clear standards for its management, use, planning, and growth. The National Wildlife Refuge System Improvement Act of 1997 recognized that wildlife-dependent recreational uses involving hunting, fishing, wildlife observation and photography, and environmental education and interpretation, when determined to be compatible with the mission of the System and purposes of the Refuge, are legitimate and appropriate public uses of the System. Compatible wildlife-dependent recreational uses are the priority general public uses of the System and shall receive priority consideration in planning and management. Hunting as specified in this plan is a wildlife-dependent recreational use and the law states that as such, it “shall receive priority consideration in national wildlife refuge planning and management.” The Secretary of Interior may permit hunting on a refuge if it is determined that the use is compatible. The hunting program would not materially interfere with or detract from the fulfillment of the purposes of the refuge or the mission of the National Wildlife Refuge System.

Recreational hunting authorized by the regulations should not interfere with the primary purpose for which Anahuac NWR was established. This determination is based upon the completion of a Compatibility Determination (Section D).

III. Statement of Objectives

The objectives of a dove hunting program on Anahuac NWR are to provide:

1. Dove hunting opportunities compatible with Refuge purposes in designated areas, and consistent with the Refuge Complex Comprehensive Conservation Plan (CCP), which was developed in compliance with National Environmental Policy Act (NEPA) standards
 - a. Hunting is a wildlife-dependent, priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Improvement Act of

1997.

2. Opportunities for the development of local organization partnerships.
 - a. Dove hunting is a long-standing traditional use in southeast Texas. Dove hunting on Anahuac NWR will be administered through an agreement with Texas Parks and Wildlife Department and their “Short Term Public Hunting Lease Program.” Opportunities for dove hunting on Anahuac NWR will be available within the State designated season. The dove hunting season generally falls within the period September- January. Public hunting of dove would be allowed on designated days and times as a “Youth/Adult” hunt. Hunt areas will be on a designated portion(s) of the Refuge. Dove hunt areas will be determined annually as described in the Texas Parks and Wildlife Department Public Dove Hunting Areas Supplement to the Public Hunting Lands Map Booklet, but will not exceed 550 acres. Means of access to the hunt area(s) will be by foot. With more than 97% of the state privately owned (TPWD 2004), limited public hunting opportunities are available in Texas. State and Federal public hunting areas provide important wildlife-dependent recreational opportunities for the general public.
3. The general public an opportunity to see and understand wildlife, and provide visitors with a high-quality wildlife-dependent recreation experience.
 - a. A “Youth/Adult” dove hunt conforms to this objective. Youth/Adult hunt requires hunters 18 years of age or older be accompanied by a youth hunter 17 years of age or younger. The proposed hunt should provide the highest quality wildlife-dependent (hunting) experience in the Houston metropolitan area by offering an un-crowded, highly individualistic experience. The hunt areas and existing public use areas do not overlap.
 - b. Current Visitor Services programs will not be interrupted by the hunt. All areas currently open to the public will remain so during the proposed dove hunts, including the refuge wildlife drive, wildlife viewing areas, and hiking trails.

IV. Assessment

A. Are wildlife populations present in numbers sufficient to sustain optimum population levels for hunting?

Anahuac NWR falls within the regulations of the south zone, according to TPWD, for dove hunting. This zone is from the section of the state south of the International Toll Bridge in Del Rio, follows northeast along U.S. Highway 277 Spur to U.S. Highway 90 in Del Rio, and then east along U.S. Highway 90 to State Loop 1604. It then follows Loop 1604 south and east, continuing north to Interstate Highway 10 and then keeping on east to the Texas-Louisiana state line.

Legal dove hunt game in Texas, according to TPWD, are mourning dove (*Zenaida macroura*), white-winged dove (*Zenaida asiatica*), rock pigeon (*Columba livia*), and Eurasian collared dove (*Streptopelia decaocto*). Texas has the nation’s largest dove population; an estimated 26.55 million breeding pairs in 2014. Even though the numbers of birds that are actually harvested

don't have a long term effect on the dove populations, lead poisoning does, and is documented as a problem. To address this issue and halt any further impact, it will be required that all hunters use non-toxic shot during their hunt on Refuge.

Mourning dove

Regional Analysis- Nationwide, hunters (850,000) only harvested about 5.6% of the total dove population (274 million) in 2013 (Seamans, M. E., 2014).

Local Analysis- The total population for the State of Texas is around 26.55 million. The Gulf Coast Plains eco-region itself has 5.7% (1.52 million) of that population (Oldenburger, S.L 2014). The harvest for all Texas Annual Public Hunt Program dove hunting areas for mourning doves in the surrounding 3 counties is less than .01% of the Gulf Coast Plains eco-region population. It is estimated that the hunt on TCP will not equal that harvest. So the overall impacts of this hunt program will be much less than .01% of the Gulf Coast Plains eco-region's population.

White-winged dove

Regional Analysis- US populations are estimated to be around 19 million.

Local Analysis- The total population for the state of Texas is around 6.77 million. The Gulf Coast Plains eco-region itself has 0.7% (48,600) of that population (Oldenburger, S.L 2014). The harvest for all Texas Annual Public Hunt Program dove hunting areas for white winged dove in the surrounding 3 counties is less than 100 birds, which is less than 2% of the Gulf Coast Plains eco-region population. Since white winged dove population tend to be utilizing mainly urban habitats in this part of Texas, it is unlikely that number of birds will be harvested during the season. So the overall impacts of this hunt program will be insignificant to both the continental and eco-region's population.

Rock pigeon

Rock pigeons are an invasive species with a US population of around 8.4 million. This is an exotic invasive species and there are no restrictions on the harvest.

Eurasian collared dove

The Eurasian collared doves are an invasive species increasing in population by ~15% each year. This species was first documented in Texas in 1995 and now are breeding in every county in Texas.

Local analysis- The total population for the state of Texas is around 2.8 million. The Gulf Coast Plains eco-region itself has 4.4% (124,300) of that population. This is an exotic invasive specie's and there are no restrictions on the harvest.

Observation from refuge staff, and TPWD estimates, indicates that dove populations vary daily

from a less than a couple hundred to several thousand, depending on what part of migration is occurring. These numbers are sufficient for limited public hunting. If populations, habitat, or hunter success rates significantly change or effect wildlife populations, modifications to the hunt program will be addressed as soon as possible. Anahuac NWR may suspend dove hunting in any given year to reduce or eliminate any negative impacts to the refuge or hunt area.

There is a possibility of incidental take of rock pigeon and Eurasian collared dove during mourning dove and white-winged dove hunting which is compatible with USFWS goals by removing exotic invasive species for refuge lands.

B. Is there competition for habitat between target species and other wildlife?

Habitat competition between the target species and other wildlife has not been directly studied on the Refuge. The proposed hunt area is located in refuge's East Unit, which is composed of approximately 17,000 acres of coastal marshes and prairies, and is adjacent to the northeastern portion of Galveston Bay. The East Unit is bordered on the west by East Bay Bayou, the east by Onion Bayou, the south by Jackson Ditch, and the north by Farm to Market Road 1985. This East Unit is primarily grasslands, prairie, marsh, rice fields and moist soil units used by waterfowl, shorebirds, wading birds, and secretive marsh birds. The specific unit where the dove hunt is proposed is called 17 ponds field. It currently is composed of grasslands and man-made ponds. The historical topography and vegetative community was destroyed by previous owner's agriculture practices. The resources described below are those that could be impacted (directly or indirectly) by the alternative discussed in this document.. Competition between species targeted by the hunting program and other wildlife for their habitats is not considered a limiting factor on population size.

C. Are there unacceptable levels of predation by target species on other wildlife forms?

Predation levels by dove in reference to other wildlife on the Refuge have not been measured because doves are herbivores and insectivores. They feed mostly on seed, grain, and occasionally berries, grasses, and herbs. They are known to eat insects on occasion, however, but there are no known insect populations that will greatly be affected by the dove in this area.

V. Description of Hunting Program

A. Areas of the Refuge that support populations of the target species.

All three species of dove and the rock pigeon in the area of Anahuac NWR occur in open grasslands and agricultural fields to feed, and they occur in scattered trees and along the edges of woodlots to nest. These four species of birds are considered common on the Refuge and can be seen throughout the year. Refuge distribution is seasonally variable with the accessibility of food. Coastal prairie, freshwater, intermediate, brackish, and saltwater marshes, coastline, and scattered woodlot habitat on the Refuge totals about 36,000 acres, of this acreage, the Refuge proposes a hunt site of no more than 550 acres to use for the dove hunt unit, which will be comprised of coastal prairie, with plants such as little bluestem, marsh hay cordgrass, partridge pea, eastern gamagrass, and evening primrose, and scattered Hackberry, Live oak, and willow

trees. This will include feeding sites, created by abandoned agriculture fields that have gone back to natural coastal prairie, for the four species.

B. Areas to be opened to hunting.

Dove hunting will occur on Anahuac NWR, Chambers County, Texas at 29° 40' 13.89" N, 94° 26' 22.38" W, along Farm to Market Road 1985. The area of impact is a specific area of no more than 550 acres, an area not currently being used for waterfowl hunting, and is located approximately .5 miles south of Farm to Market Road 1985 on the Refuge's East Unit. The East Unit is composed of approximately 17,000 acres of coastal marshes and prairies, and is adjacent to the northeastern portion of Galveston Bay. It is bordered on the west by East Bay Bayou, the east by Onion Bayou, the south by Jackson Ditch, and the north by Farm to Market Road 1985. This East Unit (Figure 1) is primarily prairie, marsh, rice fields and moist soil units used by waterfowl, shorebirds, wading birds, and secretive marsh birds.

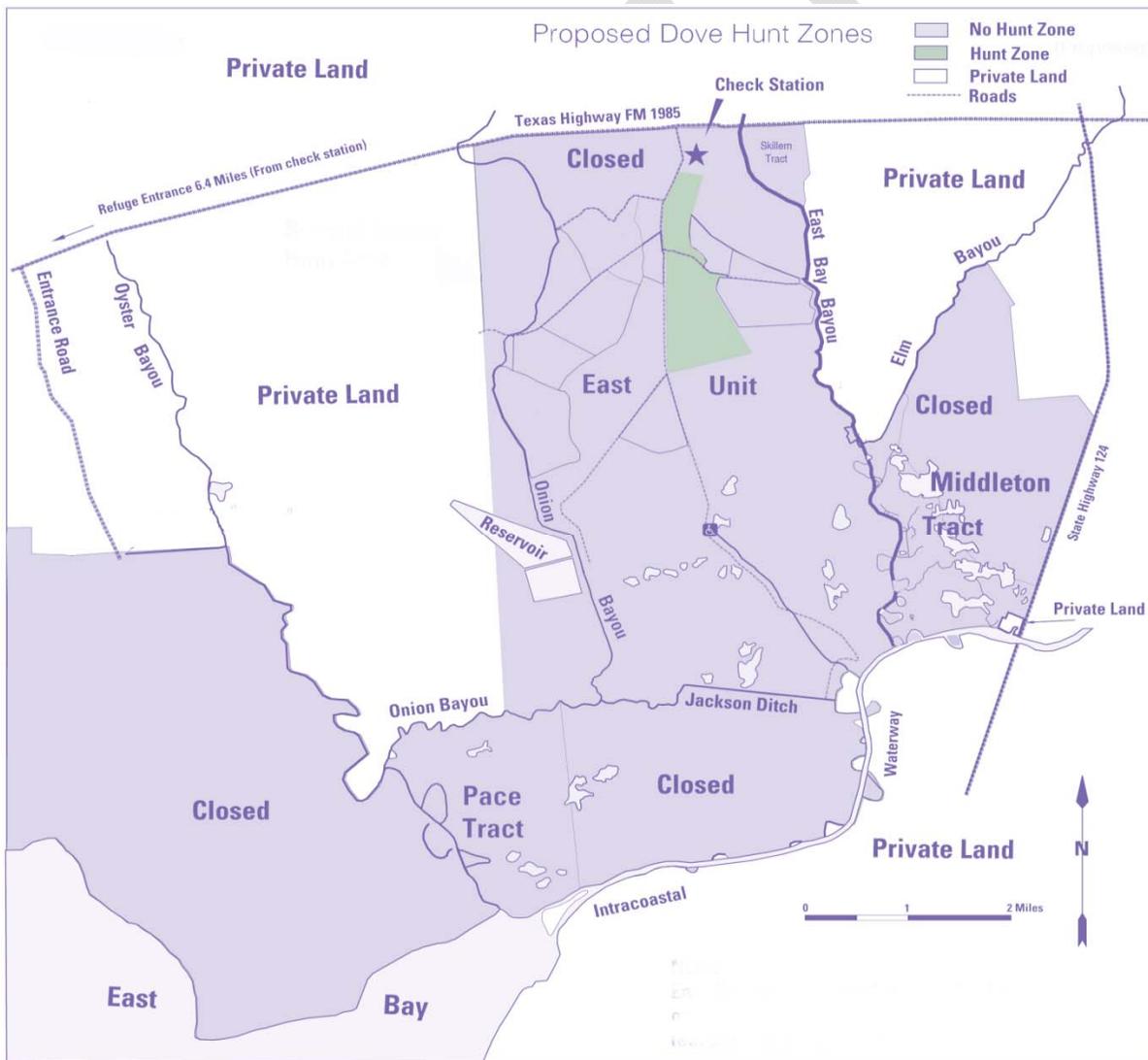


Figure 1. Anahuac Hunt Map

C. Species to be taken, hunting periods, hunting access

Mourning dove and white winged dove, with an occasional Eurasian collard dove or rock pigeon, will be taken by dove hunters, in accordance with Texas Parks and Wildlife Department (TPWD) and refuge specific regulations. Hunting seasons for this hunt will follow all hunt dates issued by TPWD, but will be limited to the first two weeks (14 Days) of the hunt season. Hunting access will be through the main gate to the East Unit off of Farm to Market Road 1985. Hunters will park along side of the gravel entrance road and walk into the hunt area.

D. Justification for the permit, if one is required

No hunting permit will be issued by the Refuge. Permits will be issued by TPWD as part of the Annual Public Hunt Permit Program.

E. Consultation and Coordination with the State.

The dove hunting program will be reviewed on an annual basis by refuge staff in consultation with TPWD. If populations, habitat, or hunter success rates significantly change or effect wildlife populations, necessary changes and/or modifications will be incorporated accordingly. Based on the population statistics stated in the assessment, the Refuge should not adversely impact its native dove population by providing dove hunt opportunities.

F. Law Enforcement

The following methods would be used to control and enforce hunting regulations:

- Refuge and hunt area boundaries will be clearly posted.
- TPWD will provide a regulations hand-out and general permit that includes a map of all hunt areas.
- Service law enforcement staff will randomly check hunters for compliance with Federal and State laws and regulations.
- Service law enforcement staff will coordinate with TPWD and other law enforcement agencies; and
- Information will be made available to hunters via the kiosk located at the hunt area.

G. Funding and Staffing Requirements

Administering the dove hunt would require staff time to coordinate with TPWD and other cooperators for conducting hunter and visitor outreach, minimizing conflicts among users, to conduct law enforcement, maintain boundary posting and visitor information sites, monitor impacts to wildlife, habitat and visitor use, and to ensure public safety.

Start-up hunt administration costs including salary, sign and boundary maintenance, road maintenance, fuel, etc. will total \$2,000. Funds are available to meet the conditions set forth in the Refuge Recreation Act. After the first year, it is anticipated that the annual costs for the hunt, and estimated \$1,500, will be paid by the Recreation Fee Program (8081), the Law Enforcement

Program (1264), and the Visitor Services Program (1263).

VI. Measures Taken to Avoid Conflicts with Other Management Objectives

A. Biological Conflicts

Endangered/Threatened Species

None of the current or projected future lands within the acquisition boundary of the refuge have been designated critical habitat for any species listed as endangered under the Endangered Species Act of 1973, as amended.

Anahuac NWR lies within the historic ranges of six Federally-listed Threatened and Endangered species: Attwater's Prairie Chicken (*Tympanuchus cupido attwateri*), Red wolf (*Canis rufus*), Eskimo Curlew (*Numenius borealis*), West Indian Manatee (*Trichechus manatus*), brown pelican, and piping plover. The first four species have been extirpated within the region and the remaining two do not use any habitat similar to what is found on the proposed hunt area.

Differences in duck densities among sanctuaries and hunted WMAs in the Mississippi Alluvial Valley (MAV), are consistent with varying levels of disturbance (Hockin et al. 1992; Madsen 1998 *a,b*). Density of dabbling species, with ecologies similar to the mottled duck, increase in sanctuaries across the hunt season. Findings by St. James suggest that ducks may have been using spatial sanctuaries even when temporal sanctuaries were available. Findings from the MAV indicate that a hunt season on dove on Anahuac NWR may affect movements and habitat use of the mottled duck, which is a species of concern for the USFWS Migratory Bird Office, and other early waterfowl migrants to the area.

The limited numbers of hunters and the shortened length of this proposed hunt should not cause any significant or long-term conflicts with any other species of animals found on the refuge. If it is determined that there are excessive disturbances to non-targeted species, changes will be made by restricting some uses to include: reducing amounts of the hunters, reducing days allowed to hunt, or restricting open hunt areas. Refuge law enforcement officers will make every effort to maximize protection of other non-targeted species.

Data for TPWD Public hunting areas utilized for dove hunting was analyzed from the 2012 to 2014 dove hunting season. Average number of dove hunters using each of the TPWD Type 2 hunting areas in the surrounding 3 counties during a season within this period was 15.3 hunters annually. Maximum number of hunters using one area on a given day was 20. This maximum number appearing on Anahuac NWR would average to 27 acres per hunter. (TPWD personnel communication)

Total number of doves harvested in these 3 years across all of the 17 TPWD APHA hunt areas that were open for dove hunting during this period was 857 birds. Average numbers of doves harvested per hunt area on all areas during the three year period was 50.4 doves. (TPWD personnel communication)

Average number of days each of the TPWD APHA hunt areas were used for dove hunting was 22.7 days or 28% of the total days the season was open for dove hunting. (TPWD personnel communication)

B. Public Use Conflicts

The majority of the recreational visitation occurs between October and May annually, which is during the winter bird migration, when opportunities to observe and photograph wildlife are at their peak. Since the proposed dove hunts will be held in the early fall, it is projected that refuge visitation will be much lower than the busy winter and spring months. The hunts will occur in areas otherwise closed to the public that only had 4305 visitors engaged in waterfowl hunting last year during this period. This area is further separated from the main public use areas on the refuge by an average of $\frac{1}{4}$ of a mile or greater on each side. Fishing is prohibited year round in the areas where the dove hunt would be conducted. Considering the seasonal and spatial separation of the major public uses at Anahuac NWR, there is no overlap in the proposed hunt area; therefore, no foreseeable public use conflicts are expected.

C. Administrative Conflicts

At this time, no administrative conflicts are anticipated by opening the refuge to dove hunting. As the refuge establishes and provides opportunities for priority public use activities, the Refuge Manager will set station priorities to assure that administrative staff time required to administer the hunting program is adequate. As this hunt program evolves over the years, the refuge-specific regulations and fee costs may change at the Refuge Manager's discretion. Assistance may be sought from the state if serious conflicts do arise. A modification of this hunt plan should be initiated if this hunt is no longer held in conjunction with the Annual Hunt Permit Program, as effort and costs will be very different from this proposal.

VII. Conduct of the Hunting Program

Listed below are refuge-specific regulations that pertain to Anahuac NWR as of the date of this plan. These regulations may be modified as conditions change or if refuge expansion continues/occurs.

A. Refuge-Specific Dove Hunting Regulations

Change from:

A. Migratory Game Bird Hunting. We allow hunting of goose, duck, and coot on designated areas of the refuge in accordance ...

Change to:

A. Migratory Game Bird Hunting. We allow hunting of goose, duck, coot, white-winged dove, mourning dove, Eurasian collared doves, and rock pigeon on designated areas of the refuge in accordance ...

Change from:

1. Season dates will be concurrent with the State for the September teal season, youth only season, and duck and coot regular season in the Texas South Zone, and goose regular season in the Texas East Zone, with the exception that we will prohibit duck (not including the September teal and youth only seasons) and coot hunting on the refuge until the last Saturday in October.
2. You must possess and carry a current signed refuge hunting permit while hunting on all hunt units of the refuge.
3. Hunters may enter the refuge hunt units no earlier than 4 a.m. Hunting starts at the designated legal shooting time and it ends at 12 p.m. (noon). Hunters must leave the refuge hunt units by 12:30 p.m. We close refuge hunt units on Thanksgiving, Christmas, and New Year's Day.
4. We allow hunting in portions of the East Unit on Saturdays, Sundays, and Tuesdays during regular waterfowl seasons. We require payment of a \$10 daily or \$40 annual fee to hunt on the East Unit. All hunters must check in and out through the check station when accessing the East Unit by vehicle. We will allow a limited number of parties to access the East Unit by vehicle. All hunters entering the East Unit through the check station will designate a hunt area on a first-come-first-served basis (special duck hunt areas will be assigned through a random drawing). We will require hunters to remain in an assigned area for that day's hunt. We allow hunters to access designated areas of the East Unit by boat from Jackson Ditch, East Bay Bayou, or Onion Bayou to pay the \$40 annual fee. We prohibit access to the East Unit Reservoir from Onion Bayou via boat. We prohibit the use of motorized boats on the East Unit, except on ponds accessed from Jackson Ditch via Onion Bayou. We prohibit motorized boats launching from the East Unit.

Change to:

1. Season dates for waterfowl will be concurrent with the State for the September teal season, youth only season, and duck and coot regular season in the Texas South Zone, and goose regular season in the Texas East Zone, with the exception that we will prohibit duck (not including the September teal and youth only seasons) and coot hunting on the refuge until the last Saturday in October.the State-specified season date. For dove hunting the season dates will be the first 16 days of the first split for this area.
2. You must possess and carry a current signed refuge hunting permit while waterfowl hunting on all refuge hunt units. For Dove hunting, hunters will be required to have a Texas Parks and Wildlife Department TPWD Annual Public Hunting (AHP) Permit to participate in the hunt on designated areas. This dove hunt is a designated youth/adult hunt requiring at least one person 17 years or younger to be hunting with each hunt party.
3. For waterfowl hunting, hunters may enter the refuge hunt units no earlier than 4 a.m. Hunting starts at the designated legal shooting time and ends at 12 p.m. (noon). Hunters must leave refuge hunt units by 12:30 p.m. For dove hunting, hunters may enter the refuge an hour before sunrise and must leave the refuge by ½ hour after sunset. Hunting

starts at the designated legal shooting time and at sunset for dove hunting. We close refuge hunt units on Thanksgiving, Christmas, and New Year's Day.

4. For waterfowl hunting, we allow hunting in portions of the East Unit on Saturdays, Sundays, and Tuesdays during regular waterfowl seasons. We require payment of a \$10 daily or \$40 annual fee to hunt on the East Unit. All hunters must check in and out through the check station when accessing the East Unit by vehicle. We will allow a limited number of parties to access the East Unit by vehicle. All hunters entering the East Unit through the check station will designate a hunt area on a first-come-first-served basis (special duck hunt areas will be assigned through a random drawing). We will require hunters to remain in an assigned area for that day's hunt. We allow hunters to access designated areas of the East Unit by boat from Jackson Ditch, East Bayou, or Onion Bayou to pay the \$40 annual fee. We prohibit access to the East Unit Reservoir from Onion Bayou via boat. We prohibit the use of motorized boats on the East Unit, except on ponds accessed from Jackson Ditch via Onion Bayou. We prohibit motorized boats launching from the East Unit. For dove hunting hunters are allowed to access and hunt the designated areas on the East Unit by vehicles via Farm Market Rd 1985 only. Hunters will be required to follow rules published annually by TPWD relating to the TPWD AHP.

B. Anticipated Public Reaction to the Hunting Program

Public scoping of the proposed action was originally initiated for the Compatibility Determination on the ANWR Dove Hunt, which has been published with the Texas Chenier Plain Refuge Complex CCP/EIS; this document was available for public review and comment. Formal public hearings on the Draft CCP/EIS were held, at which time comments on the Draft Compatibility Determination were also taken. A Notice of Availability for the Draft CCP/EIS was published in the Federal Register. There were no negative or positive comments related to dove hunting on TCP registered when the CCP/EIS were being reviewed. Since the time span between the publishing of the CCP and the final development of the Dove Hunt Plan was more than 5 years, additional scoping was conducted during the summer of 2014 and again in July 2015. No public comments were received during either scoping period.

Representatives from TPWD have requested that the refuge implement a public dove hunt.

C. Hunter Application and Registration Procedures (if applicable)

Hunters will not have to apply for refuge permits. All hunters must have the required State permits as stated under the TPWD Annual Public Hunt Permit.

D. Description of Hunter Selection Process.

Hunters will not be selected; this will be a public youth/adult hunt where there will be no reservations or hunter limits required. All hunters must follow all rules and regulations mandated by TPWD and ANWR.

E. Media Selection for Announcing and Publicizing the Hunting Program

Newspapers in Anahuac, Houston, Port Arthur, Liberty, Winnie, Beaumont, Dayton and Baytown areas will be provided news releases regarding hunt information and application processes. This information will also be made available at the refuge visitor information station (VIS) and the headquarters office and visitor center. Additional information will be available on the refuge web-site.

F. General Requirements

General information regarding dove hunting and other public uses can be obtained at the Refuge Headquarters at 4017 FM 563, Anahuac, Texas, by calling (409) 267-3337. Additionally, hunters may contact Texas Parks and Wildlife Department in Port Arthur, TX at (409) 736-2551 for information on the TPWD Annual Public Hunting Permit.

G. Hunter Requirements

1. Each hunt party must have a “youth hunter” under the age of 18 that is participating in the hunt.
2. Hunters 17 and under must be accompanied by an adult chaperone according to state regulations.
3. The Refuge will permit the use of legal sporting arms, including shotguns fired from the shoulder no larger than 10 gauge. Non-toxic shotgun ammunition is required.
4. Open fires are not permitted on the refuge
5. Hunters will be required to obtain an Annual Hunt Permit, have current license required for hunting doves in the state of Texas, and will be required to sign-in at the hunter check station
6. Hunters will be required to use the self-check program. They must check in and out of the hunt area and have their harvest information available to be recorded.
7. Persons possessing, transporting, or carrying firearms on National Wildlife Refuges must comply with all provisions of state and local law. Persons may only use (discharge) firearms in accordance with refuge regulations (50 CFR 27.42 and specific refuge regulations in 50 CFR Part 32).

Hunter Safety Training - Hunters born on or after September 2, 1971 must successfully complete a Hunter Education Training Course. Hunters between the ages of 12 and 16 are encouraged to take this Hunter Education Training Course as well but it is not required.

VIII. Compatibility Determination

A compatibility determination was completed within the Texas Chenier Plain Refuge Complex CCP/EIS for dove hunting on ANWR and related activities in 2007. Hunting and all associated program activities proposed in this plan are found to be compatible with purposes of the refuge. An updated compatibility determination was completed and is available for review with the Hunt Plan and Environmental Assessment.

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Literature Cited

- Gehrt, S. D. 2003. Raccoon in Feldhammer, G. A., B. C. Thompson and J. A. Chapman, eds. *Wild Mammals of North America, Biology, Management, and Conservation*, 2nd ed. The John Hopkins University Press.
- Gosselink, J.G., C.L. Cordes, and J.W. Parsons. 1979. *An Ecological Characterization Study of the Chenier Plain Coastal Ecosystem of Louisiana and Texas*. 3rd Volume. U. S. Dept. of the Interior, U.S. Fish and Wildlife Service, Office of Biological Services. Slidell, LA. USFWS/OBS – 78/9 through 78/11.
- Harcombe, P.A. and J.E. Neville. 1977. Vegetation Types of Chambers County, Texas. *Texas Journal of Science* Vol. XXIX, Nos. 3-4, December. 209-234.
- Lightfoot, Steve. 2010. Press Release, TPWD. TPWD to Wrap up Dove Lethality Study. <http://www.tpwd.state.tx.us/newsmedia/releases/?req=20100226a>
- Madsen, J, 1998*a*. Experimental refuges for migratory waterfowl in Danish wetlands II: Tests of hunting disturbance effects. *Journal of Applied Ecology* 35: 398-417.
- Madsen, J, 1998*b*. Experimental refuges for migratory waterfowl in Danish wetlands I: Baseline assessment of the disturbance effects of recreational activities. *Journal of Applied Ecology* 35: 386-397.
- Otis, David L., John H. Schulz, David Miller, R. E. Mirarchi and T. S. Baskett. 2008. mourning dove (*Zenaida macroura*), *The Birds of North America Online* (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/117>
- Oldenburger, S.L., M. Frisbie, J. Purvis, N. A. Heger, J. Roberson, and D. Morrison. 2014. 2014 Texas Mourning Dove, Eurasian-collared, and White-winged Dove Population Status and Harvest, Texas Parks and Wildlife Department, Austin, Texas, USA.
- Powers, Lorilei C. and Glimp, Hudson A. 1996. Impacts of shorebirds: a review and application to shorebirds of the western Great Basin. *International Wader Studies* 9: 55-63.
- Seamans, M. E., and T. A. Sanders. 2014. Mourning dove population status, 2014. U.S. Department of the Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Washington, D.C.
- Shackelford, C. E. and M. W. Lockwood. 2000. *Rare and Declining Birds of Texas: Conservation Needed*. 2nd ed. Texas Parks and Wildlife, Austin, Texas, USA.
- St. James, E., 2011. Effect of hunting frequency on duck abundance, harvest, and hunt quality in Mississippi. Thesis, Mississippi State University. 70 pp.

- Texas Parks and Wildlife Department. 2004. Performance Report, Federal Aid Grant Number W-126-R-10, Project No. 11: Fur-bearing Animal Regulations/Evaluation of Annual Fur Harvest.
- United States Census Bureau. 2001. State and County QuickFacts. Available online: <http://quickfacts.census.gov/qfd/states/48000.html>. Accessed March 16, 2006.
- U. S. Department of Agriculture, Soil Conservation Service. 1960. Soil survey of Jefferson County, Texas. Natural Resource Conservation Service, Temple, TX, USA.
- U. S. Department of Agriculture, Soil Conservation Service. 1976. Soil survey of Chambers County, Texas. Natural Resource Conservation Service, Temple, TX, USA.
- U.S. Geological Survey. 2000. Nutria, eating Louisiana's coast. Accessed online 10 April 2007. USGS FS-020-00 (Updated 4/20/01)
- U. S. Fish and Wildlife Service. 2004. A Blueprint for the Future of Migratory Birds, Migratory Bird Program Strategic Plan 2004-2014, Appendix 4.
- White, W.A., and T.A. Tremblay. 1995. Submergence of Wetlands as a Result of Human Induced Subsidence and Faulting Along the Upper Texas Gulf Coast. *Journal of Coastal Research*. 11 (3):788- 807.