



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

P.O. Box 1306  
Albuquerque, New Mexico 87103



In Reply Refer To:  
FWS/R2/HC-EC/046795

DEC 01 2010

11/02/2010  
75 FR 67406

Chief, Rules, Announcements, and Directives Branch  
U.S. Nuclear Regulatory Commission  
Division of Administrative Services  
Office of Administration  
Mailstop TWB-05-B01M  
Washington, D.C. 20555-0001

(1)

RECEIVED

2010 DEC - 8 AM 8:50

RULES AND DIRECTIVES  
BRANCH  
USNRC

Dear Sir:

The U.S. Fish and Wildlife Service (Service) is providing the following comments in response to the U.S. Nuclear Regulatory Commission's Notice of Intent to Prepare an Environmental Impact Statement (EIS) and Conduct Scoping Process for the Exelon Nuclear Texas Holdings, LLC; Victoria County Station Early Site Permit Application, Victoria County, Texas, that was published in 75 FR 67406, November 2, 2010. Exelon Nuclear Texas Holdings, LLC (Exelon) has submitted an application for the issuance of an Early Site Permit approving the Victoria County Station (VCS) site as suitable for construction and operation of a new nuclear power generating facility. The VCS is located on approximately 11,500 acres of coastal plain habitat and approximately 13.3 miles south of Victoria, Texas. The Service is providing these comments to assist in assessing and avoiding impacts to federally listed species, wetlands, and other fish and wildlife resources.

### General Comments:

#### Important Habitats

Several important wildlife refuges, sanctuaries, preserves, and habitat that support rare or protected resources are in proximity to the VCS. The Texas Parks and Wildlife Department's (TPWD) Guadalupe River Delta Wildlife Management Area is approximately 11 miles southeast of the proposed site near the junction of Calhoun, Refugio, and Victoria Counties. The Aransas National Wildlife Refuge is approximately 18 miles south of the VCS in Aransas, Calhoun, and Refugio Counties. The TPWD's Welder Flats Coastal Preserve is near the junction of the Victoria Barge Canal and the Gulf Intracoastal Waterway, approximately 26 miles southeast of the proposed site. The VCS site is also located within the endangered Attwater's prairie chicken priority habitat and lands enrolled under a Safe Harbor Agreement, where proactive management actions are identified and undertaken on the enrolled lands in order to achieve a net conservation

SO NRI Review Complete  
Template = ADM-013

E-REDS = ADM-03  
Add = IT. TERRY (TLT2)

benefit for the species. Loss of habitat, impacts to species, or reduction of water quantity or quality could affect the habitat function of each of the above mentioned conservation areas.

#### Water Quantity and Quality

Since 2002, Guadalupe River flows have been impaired due to high bacterial loads in some segments and are currently heavily allocated or used. Upstream reservoir construction and water diversions reduce freshwater inflows. Human growth and increased pumping from the Edwards Aquifer is also a threat to freshwater inflows to the Guadalupe River. The Edwards Aquifer can provide up to 70 percent of the Guadalupe River water during drought. However, as human growth expands; increased pumping and continued appropriation of water rights amplify threats to freshwater inflows.

Groundwater withdrawals from the Evangeline Aquifer could also affect local hydrology. Adequate freshwater inflows primarily from the Guadalupe and San Antonio Rivers are needed to maintain proper salinity gradients, nutrient loading, and sediments to sustain healthy endangered whooping crane wintering habitat and critical habitat. Instream flows maintain low salinity coastal waters that provide drinking water for whooping cranes and reduce the need for the species to fly inland for fresh drinking water, and increase blue crab populations (primary food of whooping cranes). Construction and operation of the facility could divert or remove Kuy Creek, a perennial stream located north of the VCS site to the confluence of the Guadalupe River, along with several other unnamed ephemeral/intermittent streams. We recommend discussing this issue at greater length in the EIS so that the nature of the impact(s) is clear. Also, low-lying depressions on site could be removed in addition to makeup water (water which is supplied, as to a cooling tower, to compensate for losses by evaporation and leakage) being pumped from the Guadalupe River. This may further impact freshwater inflows and normal water flows within the floodplain, thus impacting threatened and endangered species downstream, including the endangered whooping crane.

Additionally, water quality is currently affected in this system. The groundwater has high levels of Total Dissolved Solids. Guadalupe Bay Segment 2462-02 is on the Texas Commission of Environmental Quality's (TCEQ) list of impaired waters due to high levels of bacteria. Discharges, intakes, and blowdown temperatures of approximately 100 degrees Fahrenheit and salt deposition could change the water quality of the Guadalupe River. Accidental oil discharges or hazardous materials spills are of concern depending on the type, size, and the on-site ability to contain spills. Construction activities from transmission lines and haul roads could also have water quality impacts to streams or rivers in or near the corridors. We recommend a more detailed water quality impact discussion on potential changes in the Guadalupe River.

#### Transmission Lines

Whooping cranes and other migratory bird species may be impacted by colliding with power lines, fences and other structures during migration. Since 1956, collisions with power lines are responsible for the death or serious injury of at least 44 whooping cranes. Additional power lines within the migration corridor will increase the potential for collision mortalities. According

to the Service's Whooping Crane Coordinator Data, approximately 56 whooping cranes were sighted utilizing various marshes and lands in Victoria, Aransas, Refugio, Calhoun, Goliad, Matagorda, Wharton, and Jackson Counties between 1982 and 2007. The VCS site surveys also reported sightings of sandhill cranes. Many of the sandhill cranes reported were documented migrating with whooping cranes; therefore, it is possible whooping cranes have been on the site and were not detected at the time of the surveys. We recommend avoidance of possible whooping crane stopover habitat and that all transition lines are marked with bird diverters, as described in, "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994," by the Avian Power Line Interaction Committee.

#### Aquatic Habitat and Essential Fish Habitat

Some National Marine Fisheries Service (NMFS) species of concern were found in the aquatic surveys. We recommend Exelon contact NMFS for further review and recommendations, and discuss potential impacts to Essential Fish Habitat.

#### Climate Change

Global warming and associated climate changes also constitute a potential threat to whooping crane and other species habitat. Increasing temperatures and other climate change factors such as the sea level rise, coastal wetland flooding, interior wetlands desiccation, and an increase in precipitation events may impact species through habitat loss (i.e., changes in groundwater tables or salinity). We recommend a thorough discussion of climate change in the EIS that addresses our concerns outlined above.

#### Biological Assessment

The Service agrees with Exelon that formal consultation is appropriate and a Biological Assessment should be prepared. Guidance for preparing a Biological Assessment is attached (Attachment 1). Because an Endangered Species Act (ESA) section 7 consultation is conducted between two Federal agencies, the Service would be consulting with the Nuclear Regulatory Commission (NRC). If Exelon will be acting as the non-Federal representative for the NRC, the NRC should provide a designation letter to the Service. We have also attached an updated county by county species list for your information (Attachment 2). Additionally, the EIS should incorporate appropriate mitigation and/or compensation for those resource impacts that cannot be avoided or minimized.

#### **Specific Comments:**

##### Threatened and Endangered Species

Page 2.4-9 Whooping crane - The whooping crane, its habitat, and its designated critical habitat are vulnerable to impacts from construction and operation of the nuclear facility. This species is documented to occur in the vicinity of the VCS site, and is dependent on flows from the Guadalupe and San Antonio Rivers for food and water. We recommend careful and extensive analysis of impacts to the whooping crane.

Page 2.4-9 Piping plover - Wintering habitat for the threatened piping plover is located along the shoreline of Matagorda Island, approximately 25 miles south of the VCS site in Calhoun County. Matagorda Island and other coastal areas are designated critical habitat for this species. We recommend careful analysis of impacts to the piping plover.

Page 2.4-9 Attwater's Prairie Chicken - Portions of the VCS site are enrolled in a Safe Harbor Agreement for the Attwater's prairie chicken, and the species is known to occur in Victoria County where enrolled landowners agreed to manage vegetation on their property for the benefit of this species. The VCS site also lies within a priority management zone because of the Safe Harbor Agreement management activities and site proximity to historic breeding grounds. Mammal trappings were conducted in this priority management zone. We recommend that if Exelon plans to conduct future mammal trapping surveys or other survey activities they should request information from appropriate state fish and wildlife and/or Federal agencies as to whether permits are required.

Page 2.4-4, 2.4-9 Bald eagle - Although the bald eagle has been delisted, the species is afforded protection under the Bald and Golden Eagle Protection Act, and we continue to monitor the species. Three possible routes (A, B, and C) for the makeup water pipeline have been surveyed. Each route crosses the San Antonio River and/or its tributaries which have documented bald eagle nests. Survey data for the VCS site identified a bald eagle near Linn Lake. We recommend a monitoring plan be incorporated into the EIS for the bald eagle.

Page 2.4-12 Sea turtles - Five species of sea turtles nest on Texas barrier islands and could possibly occur in San Antonio Bay. The hawksbill and the leatherback turtles are rare nesters to the coast. We recommend the sea turtles be included in the Biological Assessment.

Page 2.4-12 West Indian Manatee - Manatees occurring in Texas probably migrate up from Mexico. There have been several sightings over the last few years of manatees along the coastal counties. In early November 2010, one individual was documented in Nueces County, Texas. We recommend the manatee be included in the Biological Assessment.

Page 2.4-12 Brown pelican - Although the brown pelican has been delisted, we continue to monitor the species post-delisting. The brown pelicans are located in Aransas, Calhoun, and Matagorda Counties, which is near the VCS site. We recommend that a monitoring plan be incorporated into the EIS, if brown pelicans will be disturbed.

Page 2.4-13 Jaguarundi and Ocelot - The cats are limited because of loss of habitat. However, there have been some unconfirmed sightings at Aransas National Wildlife Refuge. We recommend the cats be included in the Biological Assessment.

Page 2.4-13 Eskimo Curlew - The last Eskimo curlew was documented in April 1962 in the Galveston, Texas area. However, the species does occur in coastal prairie habitats. We recommend the Eskimo curlew be included in the Biological Assessment.

Page 2.4-45 Mountain Plover - The mountain plover is currently proposed to be listed as threatened, and was documented on the VCS site survey. Although this species is not afforded any legal protection under the ESA, we recommend that Exelon propose conservation measures aimed at benefiting the species and its habitat.

Page 2.4-47 Yellow billed cuckoo - The yellow billed cuckoo is listed as a candidate species, and was documented on the VCS site survey. Although it is not afforded any legal protection under the ESA, we recommend that Exelon propose conservation measures aimed at benefiting the species and its habitat.

#### Migratory Birds

Page 2.4-7 Site surveys and data collected on breeding bird surveys near the VCS site identified around 200 species present at some point in the annual cycle. The Service does not provide concurrences with the Migratory Bird Treaty Act, and there is no permit issued for the take of migratory birds. The Service recommends avoidance of nest disturbance by surveying and providing a buffer around the nest until young fledge or contact the Service's Regional Office for a relocation permit to take birds to an approved rehabilitation facility. Please refer to Attachment 3, Suggested Priority of Migratory Bird Conservation Actions for Projects, March 9, 2010, for further guidance on migratory birds and construction projects.

#### Wetlands/Floodplain

Page 4.3-2 VCS site surveys indicated the presence of 1,843 acres of wetlands. The U.S. Army Corps of Engineers has not concurred on the wetlands delineation or determined the extent of federally jurisdictional waters at the site. It appears that 62 wetland areas (42 are isolated but may still be usable by whooping cranes and migratory birds) are present in the project area. Most of these areas will be permanently impacted in addition to several streams that would be covered by the footprint of the infrastructure. There are also 78 acres of depressional wetlands to be temporarily impacted by laydown yards. There will be approximately 28 miles of stream lost by the footprint. We recommend laydown yards, staging areas, and equipment be placed in disturbed areas, avoiding important habitat areas.

Additionally, the VCS site contains part of its footprint within the 100 year flood plain. We recommend that infrastructure within the project footprint be realigned to avoid the floodplain area on the southeast end of the site.

#### Transmission corridors

Page 4.3-7 Transmission corridors may impact bald eagle nests or habitat and may be a potential hazard to whooping cranes. Noise impacts (temporary and permanent), as well as lighting impacts from construction and security for the facility, need to be assessed and considered in compensation. Exact routes of these corridors have yet to be determined. However, it is important to identify alternative corridors in order to determine in the EIS the corridor with the least amount of impact to habitat and listed species. We recommend placing bird diverters on all transmission lines and towers, as described in, "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994," by the Avian Power Line Interaction Committee.

Water Quantity and Quality

Page 4.2-1 Exelon states 39,968 acre-feet of groundwater could be extracted per year without violating TCEQ specified constraints, and that supplies from surface water, according to 2006 models, are considered to be "dependable during drought." Available surplus surface water rights are only estimated to be 39,000 acre-feet, but Exelon states 75,000 acre-feet per year will be taken from the intake to replenish the cooling basin. The cooling basin will need between 42,250 and 97,396 gallons per minute (gpm), and that two groundwater wells with 600 gpm per well from the Evangeline Aquifer will be necessary. It is believed Victoria County has projected 7,487 acre-feet per year or 4,500 gpm available for the project. It is unclear how much groundwater or surface water will be going in and out of the plant and its destination. We recommend that the effects of water withdrawal be conducted, and that appropriate mitigation based on the effects be incorporated into the project.

The location of the plant is noted as being downstream of the Vicksburg Fault Zone. We recommend Exelon include guidance or requirements on the distance of a nuclear reactor facility from a fault zone and any potential impacts that could occur if the facility is constructed near a fault zone.

We appreciate the efforts of Exelon and NRC staff to assess potential impacts to fish and wildlife resources and look forward to further coordination on developing feasible alternatives for protecting fish and wildlife resources. If you have any questions, please contact Mary Orms, Ecological Services Field Office, Corpus Christi, Texas, at 361-994-9005, extension 246, or by email at [mary\\_orms@fws.gov](mailto:mary_orms@fws.gov).

Sincerely,



**ACTING** Regional Director

Chief, Rules, Announcements, and Directives Branch

7

cc: Supervisor, Ecological Services Field Office, Corpus Christi, TX  
Chief, Habitat Conservation and Environmental Contaminants, Ecological Services,  
Region 2, Albuquerque, NM  
Regional Environmental Officer, OEPC, Albuquerque, NM  
Refuge Manager, Aransas National Wildlife Refuge, Region 2  
Director (AFHC-HRC), Attention: Stephanie Nash

## Attachment 1

### Section 7 Consultation - Guidance for Preparing a Biological Assessment

The purpose for this guidance is to assist project proponents in documenting their analyses for actions that may affect listed species. Federal agencies are required to determine whether their actions may affect listed or proposed species and designated and proposed critical habitat (henceforth, referred to as protected resources). Once a “may affect” determination is made, the Federal agency must either request our concurrence with a “may affect, but not likely to adversely affect” finding or request initiation of formal consultation<sup>1</sup>. Both require a written analysis to be submitted to us. This analysis is typically transmitted in a document referred to as a Biological Assessment or Biological Evaluation. The former is defined in regulation and is required under specific circumstances<sup>2</sup>. The latter is a generic term used to document analyses and section 7 determinations when a Biological Assessment (BA) is not required. Both documents are for the same purpose<sup>3</sup>, and hence for this guidance, we will use only the term BA.

Biological Assessments may serve multiple purposes, but the primary role is to document an agency’s conclusions and the rationale to support those conclusions regarding the effects of their proposed actions on protected resources. Although there are no statutory or regulatory mandated contents for a BA, recommended elements are identified at 50 CFR §402.12(f). The bulleted list below highlights the elements that are essential for our review of your project.

**Project description** - Describe the what, when, where, and how of the project. Describe (1) **what** the project or action is; (2) **where** the project is (refer to attached maps); (3) **when** the action is going to take place, time line/implementation schedules; (4) **who** is going to do the action and under what authority, include name and address of the applicant; and (5) **how** the action will be accomplished—*e.g.*, bulldozer, pile driver, feller-buncher, chain saw, steam roller. If it is multi-phased, describe the what, when, where and how of each phased separately. Identify any conservation measures that will be implemented to avoid, reduce, or eliminate adverse effects or that would benefit the protected species or critical habitat.

**Describe the project area** - For determining whether a species or critical habitat “may be present,” it is necessary to delineate the “action area.” Action area is defined as all areas that may be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. It encompasses the geographic extent of environmental changes (*i.e.*, the physical, chemical and biotic effects) that will result directly and indirectly from the action. Action area is typically larger than the area directly affected by of the action.

**Describe the physical and biological attributes of the action area** (*e.g.*, topography, vegetation, condition and trend). It is helpful to include a map delineating where the action will occur. Also, identify any management or activities already occurring in the area.

**Identify listed or proposed species that “may be present.”** List all species that “may be present” in the area and where you obtain this information. You may submit your own list to the Service or request a list from the Service. We recommend including candidate species, in addition to proposed and listed species and proposed and designated critical habitat. If you determined that



a particular species that may be present in the general area, *but not in the action area*, it is helpful to identify that species and to explain why it is not present in the action area. This serves two purposes. First, it will provide documentation for your administrative record. Second, it will avoid need for additional correspondence with us regarding that particular species. If a species is missing from the list, we will either ask you for an explanation of why the species would not be present in the action area or why they are likely to be present. For additional guidance in determining whether a protected resource "may be present," see our Section 7(a)(2) Process (Step 1) website.

For each species that "may be present," describe the current habitat conditions within the action area. If known, include population status and trend. For critical habitat, identify the primary constituent elements that occur in the action area. For a description of the primary constituent elements, refer to the rule in the Federal Register that designated the critical habitat. Describe how the action may affect each protected resource - This section should document your conclusion and supporting rationale. Document your analysis of the what, when and how the protected resources will be exposed to and how such individuals or habitat are likely to respond to this exposure. Remember that you must consider effects that may occur later in time (e.g., after completion of initial construction). If species experts were contacted, include a summary of the conversations/conclusions reached. Include the references for the literature that your analysis relied upon.

Following this analysis, you need to make a section 7 finding for proposed or listed species and proposed or designated critical habitat that may be present in the action area. Your section 7 conclusion should be explicit. Generally, one of the following three determinations will apply<sup>4</sup>. For additional guidance in making a section 7 determination, please see our Section 7(a)(2) Process (Steps 1-3) website.

"No effect" means there will be no impacts, positive or negative, to listed or proposed resources. Generally, this means no listed resources will be exposed to action and its environmental consequences. Concurrence from the Service is not required.

"May affect, but not likely to adversely affect" means that all effects are beneficial, insignificant, or discountable. Beneficial effects have contemporaneous positive effects without any adverse effects to the species or habitat. Insignificant effects relate to the size of the impact and include those effects that are undetectable, not measurable, or cannot be evaluated. Discountable effects are those extremely unlikely to occur. These determinations require written concurrence from the Service.

"May affect, and is likely to adversely affect" means that listed resources are likely to be exposed to the action or its environmental consequences and will respond in a negative manner to the exposure.

Include relevant reports - Results from species or habitat surveys should be included. If a survey was conducted, include a description of the survey methodology. It is important to note the specifics of your methodology. Explain the scope of the survey; did the survey cover the entire

action area or only part of it? Identify who did the survey and when. Supporting documents, such as environmental assessments or other planning documents, are helpful for our review.

Provide copies of supporting documentation, especially any agency reports or data that are not readily available.

Complete a cumulative effects analysis - Cumulative effects are effects resulting from future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation. This step is necessary only if listed resources will be adversely affected and Formal Consultation is necessary.

### **Sample Outline for a Biological Assessment**

Please include a cover letter with your BA. This letter should indicate that you are submitting a BA for a particular project. It is helpful if you summarize your determinations and explicitly request an action from us, i.e., concur with your “may affect, but not likely to adversely affect” determination or initiate formal consultation.

**Note:** For projects that will adversely affect proposed or listed species or proposed or designated critical habitat, we strongly recommend that you contact our office for technical assistance before preparing or submitting a final BA.

#### **I. Introduction**

A. State the purpose of document, e.g., to assess the effects of the proposed action on federally protected resources.

B. Briefly specify the proposed action. If applicable, include both the Federal action (e.g., issue 404 permit) and the applicant’s action (e.g., build residential complex).

#### **II. Project description**

A. Subdivide proposed action into project elements (e.g., construction, operation, and maintenance), if applicable.

B. Describe the where, when, and how for each project element

C. Include a map delineating the location of each project element

D. Identify any conservation measures that will be incorporated into the project design

#### **III. Action Area**

A. Delineate the geographic area that will be affected, i.e., the area where the physical, chemical, and biotic effects will occur.

B. Delineate the specific areas that will be affected by each of the project elements

C. Identify any ongoing activities that may be affecting the species or habitat

#### IV. Species/Critical Habitat Considered

A. Identify the species or critical habitat that "may be present."

B. Document how you identify these listed resources.

C. Describe the current population and habitat conditions (status and trend, if known) in the action area for each protected resource that "may be present"

#### V. Effects Analysis

A. For each species or critical habitat parcel, explain how it will or will not be exposed to the project elements; be sure to consider effects to all life stage.

B. Describe the anticipated response (e.g., none, abandoned the area, decrease foraging success, reduced fecundity, injury, death, etc.) from any likely exposure

C. Cumulative Effects Analysis (for actions that are likely to adversely affect listed resources). Identify any future state or private activities, not involving Federal activities, that are reasonably certain to occur within the action area. Describe how such activities will affect listed resources within the action area

#### VI. Conclusion and Determination of Effects for each protected resource

A. For each protected resource, make a section 7 determination and include your rationale.

B. For a "may affect, but not likely to adversely affect" finding, request our concurrence. For a "may affect, likely to adversely affect" finding, request initiation of Formal Consultation.

#### VII. Literature Cited

#### VIII. List of Contacts Made and Preparers

<sup>1</sup> Per regulations (50 CFR 402.14), Federal agencies must submit an initiation package before formal consultation may begin. The required contents of the package are identified in the regulations. With exception of a cumulative effects analysis and a catch-all of any other relevant information, the required information for an initiation package is the same as the information we recommend submitting with a BA.

<sup>2</sup> Biological Assessments are only required for "major construction activities," which are Federal actions that may significantly affect the quality of the human environment as referred to in the National Environmental Policy Act of 1969. The purpose of a biological assessment is to evaluate the potential effects of the action on listed and proposed species and designated and proposed critical habitat and determine whether any such species or habitat are likely to be adversely affected by the action.

<sup>3</sup> Agencies are required to review all their actions—not just those that qualify as a “major construction activity.” This review entails assessing and documenting the effects of their action on protected resources. Whether an action qualifies as a “major construction activity” has no influence on how an agency should analyze its action or document its section 7 review. Hence, the purpose and contents of a Biological Assessment and a Biological Evaluation should be the same.

<sup>4</sup> Formal Consultation is required if an action is likely to “adversely affect” listed species and designated critical habitat. For proposed species, further consultation is required only if the action is likely to “jeopardize the continued existence” of the species or result in “destruction or adverse modification” of critical habitat. To appropriately apply these determinations, you need to fully understand the terms “jeopardy” and “adverse modification” and must have complete knowledge of the rangewide status of the species and condition of the habitat, respectively. For these reasons, agencies typically conclude “may affect, and likely to adversely affect” and contact the Service for further guidance in making the jeopardy and adverse modification determinations for proposed species/critical habitat.

Attachment 2

Federally Listed as Threatened and Endangered Species of Texas  
September 22, 2010

County-by-County lists containing species information is available at the U.S. Fish and Wildlife Service's (Service), Southwest Region, web site:  
<http://www.fws.gov/southwest/es/EndangeredSpecies/lists>.

This list represents species that may be found in counties throughout the state. It is recommended that the field station responsible for a project area be contacted if additional information is needed.

**DISCLAIMER**

This County by County list is based on information available to the U.S. Fish and Wildlife Service at the time of preparation, date on page 1. This list is subject to change, without notice, as new biological information is gathered and should not be used as the sole source for identifying species that may be impacted by a project.

**Calhoun County**

Bald eagle	(DM)	<i>Haliaeetus leucocephalus</i>
Brown pelican	(DM)	<i>Pelecanus occidentalis</i>
Green sea turtle	(T)	<i>Chelonia mydas</i>
Hawksbill sea turtle	(E w/CHI)	<i>Eretmochelys imbricata</i>
Kemp's Ridley sea turtle	(E)	<i>Lepidochelys kempii</i>
Leatherback sea turtle	(E w/CHI)	<i>Dermochelys coriacea</i>
Loggerhead sea turtle	(T)	<i>Caretta caretta</i>
Northern aplomado falcon	(E)	<i>Falco femoralis septentrionalis</i>
Piping plover	(T w/CH)	<i>Charadrius melodus</i>
West Indian manatee	(E)	<i>Trichechus manatus</i>
Whooping crane	(E w/CH)	<i>Grus americana</i>
Gulf Coast jaguarundi	(E)	<i>Herpailurus yagouaroundi cacomitli</i>

**DeWitt County**

Bald eagle	(DM)	<i>Haliaeetus leucocephalus</i>
Whooping crane	(E w/CH)	<i>Grus americana</i>

**Goliad County**

Attwater's greater prairie-chicken	(E)	<i>Tympanuchus cupido attwateri</i>
Bald eagle	(DM)	<i>Haliaeetus leucocephalus</i>
Whooping crane	(E w/CH)	<i>Grus americana</i>

**Jackson County**

Bald eagle	(DM)	<i>Haliaeetus leucocephalus</i>
West Indian manatee	(E)	<i>Trichechus manatus</i>
Whooping crane	(E w/CH)	<i>Grus americana</i>

### Matagorda County

Bald eagle	(DM)	<i>Haliaeetus leucocephalus</i>
Brown pelican	(DM)	<i>Pelecanus occidentalis</i>
Green sea turtle	(T)	<i>Chelonia mydas</i>
Hawksbill sea turtle	(E w/CHI)	<i>Eretmochelys imbricata</i>
Kemp's Ridley sea turtle	(E)	<i>Lepidochelys kempii</i>
Leatherback sea turtle	(E w/CHI)	<i>Dermochelys coriacea</i>
Loggerhead sea turtle	(T)	<i>Caretta caretta</i>
Northern aplomado falcon	(E)	<i>Falco femoralis septentrionalis</i>
Piping plover	(T w/CH)	<i>Charadrius melodus</i>
Slender rush-pea	(E)	<i>Hoffmannseggia tenella</i>
West Indian manatee	(E)	<i>Trichechus manatus</i>
Whooping crane	(E w/CH)	<i>Grus Americana</i>

### Refugio County

Attwater's greater prairie-chicken	(E)	<i>Tympanuchus cupido attwateri</i>
Bald eagle	(DM)	<i>Haliaeetus leucocephalus</i>
Black lace cactus	(E)	<i>Echinocereus reichenbachii</i> var. <i>albertii</i>
Brown pelican	(DM)	<i>Pelecanus occidentalis</i>
Green sea turtle	(T)	<i>Chelonia mydas</i>
Gulf Coast jaguarundi	(E)	<i>Herpailurus yagouaroundi cacomitli</i>
Hawksbill sea turtle	(E w/CHI)	<i>Eretmochelys imbricata</i>
Kemp's Ridley sea turtle	(E)	<i>Lepidochelys kempii</i>
Leatherback sea turtle	(E w/CHI)	<i>Dermochelys coriacea</i>
Loggerhead sea turtle	(T)	<i>Caretta caretta</i>
Mountain Plover	(P/T)	<i>Charadrius montanus</i>
Northern aplomado falcon	(E)	<i>Falco femoralis septentrionalis</i>
Ocelot	(E)	<i>Leopardus pardalis</i>
Piping plover	(T w/CH)	<i>Charadrius melodus</i>
West Indian manatee	(E)	<i>Trichechus manatus</i>
Whooping crane	(E w/CH)	<i>Grus americana</i>

### Victoria County

Attwater's greater prairie-chicken	(E)	<i>Tympanuchus cupido attwateri</i>
Bald eagle	(DM)	<i>Haliaeetus leucocephalus</i>
Whooping crane	(E w/CH)	<i>Grus americana</i>

### Wharton County

Bald eagle	(DM)	<i>Haliaeetus leucocephalus</i>
Mountain Plover	(P/T)	<i>Charadrius montanus</i>
Northern aplomado falcon	(E)	<i>Falco femoralis septentrionalis</i>
Slender rush-pea	(E)	<i>Hoffmannseggia tenella</i>
Whooping crane	(E w/CH)	<i>Grus americana</i>

### INDEX

Statewide or areawide migrants are not included by county, except where they breed or occur in concentrations. The whooping crane is an exception; an attempt is made to include all confirmed sightings on this list.

- E = Species in danger of extinction throughout all or a significant portion of its range.
- T = Species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
- DM = Delisted, monitoring for 5 years
- C = Species for which the Service has on file enough substantial information to warrant listing as threatened or endangered.
- CH = Critical Habitat (in Texas unless annotated I)
- P/ = Proposed ...
- P/E = Species proposed to be listed as endangered.
- P/T = Species proposed to be listed as threatened.
- G = with special rule
- I = CH designated (or proposed) outside Texas
- ~ = protection restricted to populations found in the interior of the United States. In Texas, the least tern receives full protection, except within 50 miles (80 km) of the Gulf Coast.

Attachment 3  
**Suggested Priority of Migratory Bird Conservation Actions for Projects**  
**U.S. Fish and Wildlife Service, Migratory Bird Management**  
**(For External Distribution)**  
**March 9, 2010**

1. Avoid any take of migratory birds and/or minimize the loss, destruction, or degradation of migratory bird habitat while completing the proposed project or action.
2. Determine if the proposed project or action will involve below - and/or above-ground construction activities since recommended practices and timing of surveys and clearances could differ accordingly.
3. If the proposed project or action includes a reasonable likelihood that take of migratory birds will occur, then complete actions that could take migratory birds outside of their nesting season. This includes clearing or cutting of vegetation, grubbing, etc. The primary nesting season for migratory birds varies greatly between species and geographic location, but generally extends from early April to mid-July. However, the maximum time period for the migratory bird nesting season can extend from early February through late August. Also, eagles may initiate nesting as early as late December or January depending on the geographic area. Due to this variability, project proponents should consult with the appropriate Regional Migratory Bird Program (USFWS) for specific nesting seasons. Strive to complete all disruptive activities outside the peak of migratory bird nesting season to the greatest extent possible. Always avoid any habitat alteration, removal, or destruction during the primary nesting season for migratory birds. Additionally, clearing of vegetation in the year prior to construction (but not within the nesting season) may discourage birds from attempting to nest in the proposed construction area, thereby decreasing chance of take during construction activities.
4. If a proposed project or action includes the potential for take of migratory birds and/or the loss or degradation of migratory bird habitat and work cannot occur outside the migratory bird nesting season (either the primary or maximum nesting season), project proponents will need to provide the USFWS with an explanation for why work has to occur during the migratory bird nesting season. Further, in these cases, project proponents also need to demonstrate that all efforts to complete work outside the migratory bird nesting season were attempted, and that the reasons work needs to be completed during the nesting season were beyond the proponent's control.

Also, where project work cannot occur outside the migratory bird nesting season, project proponents must survey those portions of the project area during the nesting season prior to construction occurring to determine if migratory birds are present and nesting in those areas. In addition to conducting surveys during the nesting season/construction phase, companies may also benefit from conducting surveys during the prior nesting season. Such surveys will assist the company in any decisions about the likely presence of nesting migratory birds or sensitive species in the proposed project or work area. While



individual migratory birds will not necessarily return to nest at the exact site as in previous years, a survey in the nesting season in the year before construction allows the company to become familiar with species and numbers present in the project area well before the nesting season in the year of construction. Bird surveys should be completed during the nesting season in the best biological timeframe for detecting the presence of nesting migratory birds, using accepted bird survey protocols. USFWS Offices can be contacted for recommendations on appropriate survey guidance. Project proponents should also be aware that results of migratory bird surveys are subject to spatial and temporal variability. Finally, project proponents will need to conduct migratory bird surveys during the actual year of construction, if they cannot avoid work during the primary nesting season (see above) and if construction will impact habitats suitable for supporting nesting birds.

5. If no migratory birds are found nesting in proposed project or action areas immediately prior to the time when construction and associated activities are to occur, then the project activity may proceed as planned.
6. If migratory birds are present and nesting in the proposed project or action area, contact your nearest USFWS Ecological Services Field Office and USFWS Region Migratory Birds Program for guidance as to appropriate next steps to take to minimize impacts to migratory birds associated with the proposed project or action.

\* Note: these proposed conservation measures assume that there are no Endangered or Threatened migratory bird species present in the project/action area, or any other Endangered or Threatened animal or plant species present in this area. If Endangered or Threatened species are present, or they could potentially be present, and the project/action may affect these species, then consult with your nearest USFWS Ecological Services Office before proceeding with any project/action.

\*\* The Migratory Bird Treaty Act prohibits the taking, killing, possession, and transportation, (among other actions) of migratory birds, their eggs, parts, and nests, except when specifically permitted by regulations. While the Act has no provision for allowing unauthorized take, the USFWS realizes that some birds may be killed during construction and operation of energy infrastructure, even if all known reasonable and effective measures to protect birds are used. The USFWS Office of Law Enforcement carries out its mission to protect migratory birds through investigations and enforcement, as well as by fostering relationships with individuals, companies, and industries that have taken effective steps to avoid take of migratory birds, and by encouraging others to implement measures to avoid take of migratory birds. It is not possible to absolve individuals, companies, or agencies from liability even if they implement bird mortality avoidance or other similar protective measures. However, the Office of Law Enforcement focuses its resources on investigating and prosecuting individuals and companies that take migratory birds without identifying and implementing all reasonable, prudent and effective measures to avoid that take. Companies are encouraged to work closely with Service biologists to identify available protective measures when developing project plans and/or avian protection plans, and to implement those measures prior to/during construction or similar activities.

\*\*\* Also note that Bald and Golden Eagles receive additional protection under the Bald and Golden Eagle Protection Act (BGEPA). BGEPA prohibits the take, possession, sale, purchase, barter, offer to sell, purchase, or barter, transport, export or import, of any Bald or Golden Eagle, alive or dead, including any part, nest, or egg, unless allowed by permit. Further, activities that would disturb Bald or Golden Eagles are prohibited under BGEPA. "Disturb" means to agitate or bother a Bald or Golden Eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an Eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior. If a proposed project or action would occur in areas where nesting, feeding, or roosting eagles occur, then project proponents may need to take additional conservation measures to achieve compliance with BGEPA. New regulations (50 CFR § 22.26 and § 22.27) allow the take of bald and golden eagles and their nests, respectively, to protect interests in a particular locality. However, consultation with the Migratory Bird, Ecological Services, and Law Enforcement programs of the Service will be required before a permit may be issued.