

Whooping Crane Reintroduction in Louisiana

Questions and Answers about the

Environmental Assessment and

Nonessential, Experimental Designation

History and Background

Q: Why are the Service and the Louisiana Department of Wildlife and Fisheries (LDWF) reintroducing a nonmigratory flock of whooping cranes to Louisiana?

A: Whooping cranes currently exist in three wild populations and within captive breeding populations at 12 locations. The only self-sustaining natural wild population nests in the Northwest Territories and adjacent areas of Alberta, Canada, primarily within the boundaries of Wood Buffalo National Park. It is possible that all or most of the populations of these endangered birds could be wiped out from a single event such as a hurricane, disease outbreak, toxic spill, or prolonged drought.

This makes the species vulnerable to extinction. The recovery plan identifies the need for three self-sustaining wild populations—consisting of 40 nesting pairs in the Aransas-Wood Buffalo Population (AWBP) and two additional, separate and self-sustaining, populations consisting of 25 nesting pairs each—to be in existence before the whooping crane’s status is considered improved enough for reclassification to threatened status. Those new populations may be migratory or nonmigratory.

Q: Have other whooping crane reintroduction projects been conducted?

A: There have been three reintroduction projects to date. There are no cranes remaining in the Rocky Mountain population. The Florida Nonmigratory Population numbers 21 birds (9 males, 12 females). Only two pairs attempted to breed during the 2009 drought, and one pair fledged a chick. In 2010, there are nine nests and one pair has fledged a chick so far. Currently, the Eastern Migratory Population numbers 106 birds. Nine pairs nested and two chicks fledged and remain alive as of November 19, 2010.

Q: What are the objectives of this reintroduction?

A: The objectives of this reintroduction into Louisiana are to: (1) advance recovery of the endangered whooping crane;(2) implement a primary recovery action for a federally listed endangered species; (3) further assess the suitability of southwest Louisiana as whooping crane habitat; and, (4) evaluate the suitability of releasing captive and parent-reared whooping cranes, conditioned for wild release, as a technique for establishing a self-sustaining, nonmigratory population. The LDWF and Service will collect information on survival of released birds, movements, behavior, and causes of losses, reproductive success, and other data throughout the project.

Q: Who is responsible for the reintroduction?

A: In 1985, the Director-General of the Canadian Wildlife Service and the Director of the U.S. Fish and Wildlife Service signed a Memorandum of Understanding (MOU) entitled “Conservation of the Whooping Crane Related to Coordinated Management Activities.” The MOU was revised and signed

in 1990. The U.S. Geological Survey-Biological Resources Division (Patuxent) and Parks Canada (Wood Buffalo National Park) were added as signatories in 1995. The MOU was last updated in 2001. It discusses disposition of birds and eggs, postmortem analysis, population restoration and objectives, new population sites, international management, recovery plans, and consultation and coordination. All captive whooping cranes and their future progeny are the joint responsibility of the U.S. Fish and Wildlife Service and the Canadian Wildlife Service. Consequently, both nations are involved in recovery decisions. The U.S. Fish and Wildlife Service and the LDWF are jointly implementing this proposed reintroduction in Louisiana. The LDWF will have the primary role in the reintroduction and monitoring.

Q: Where will the reintroduced cranes come from?

A: Reintroduction efforts will focus on using young hatched from whooping cranes already in captivity at captive breeding centers.

A. Why not relocate some of the migratory whooping cranes from the Aransas/Wood Buffalo flock?

Since the Aransas/Wood Buffalo flock is the only self-sustaining wild migratory population, it is too risky to do anything that might harm this population.

Q: Why was the White Lake Wetlands Conservation (WLWCA) Area in Louisiana chosen for the reintroduction?

A: Louisiana was chosen for a new population for several reasons. The likelihood of the releases resulting in a self-sustaining population is believed to be good. Whooping cranes historically occurred in Louisiana in both a resident, nonmigratory flock and a migratory flock that wintered in Louisiana. The release area, White Lake, is the location where whooping cranes were historically documented raising young in Louisiana. Louisiana's long tradition of environmental commitment and support from the public increases the chances for success within the state. Louisiana's conservation efforts have helped to recover the American alligator, Bald eagle and most recently the Brown pelican.

There are approximately 1.3 million acres of marsh, open water, and chenier habitat in southwestern coastal Louisiana. This area, also known as the Chenier Plain, has experienced one of the lowest coastal land loss rates of all the Louisiana coastal regions. In addition, 31 coastal restoration projects have been approved in this area via the Coastal Wetlands Planning, Protection, and Restoration Act and are anticipated to yield an estimated 29,000 additional acres of wetlands over their 20-year life span.

Q. Does the WLWCA have enough food and forage such as blue crabs to support a whooping crane population?

A. The historic non-migratory whooping crane population was dependent upon the fresh water marshes and wet prairie. Whooping cranes are known only to nest in fresh water wetlands; therefore, the availability of blue crabs and other estuarine prey items as forage at the WLWCA was not a factor when deciding upon the release location. Other water dependent birds with diet preferences similar to whooping cranes are abundant at the WLWCA. Whooping cranes are generalists, quite adaptive, and will utilize the food sources that are available.

Q. Will the whooping cranes be at risk from contaminants at the WLWCA?

A. We reviewed the WLWCA to determine if it supported a healthy population of aquatic and terrestrial wildlife, especially fish-eating birds which are at a similar risk in regard to contaminant exposure because of their level in the food chain. Our review concluded that there was indeed a stable abundance and wide diversity of terrestrial and aquatic species that has been sustained at the release site. In an effort to reduce our uncertainty about the potential risks, the Service will undertake three actions: (1) we will initiate a review of the available information on contaminants in watersheds and the potential pathways into the proposed release site; (2) we will collaborate with current efforts that are examining the forage base at the proposed release site in order to obtain samples for potential chemical analysis; (3) because all whooping cranes will be fitted with tracking transmitters which will allow us to monitor where they forage, we will be able to collect samples from known foraging areas. The transmitters will also enable us to determine if the cranes move to an unsafe area at which point they would be captured and relocated, and if one should unfortunately die, we would be able to recover the body and determine the cause of death. Finally, we will also be conducting periodic health checks on the population and the health screening will include contamination assessment from blood and feathers and other samples. Health exams and mortality events will be important learning opportunities for examining contaminant concerns.

Q: Who owns the subsurface mineral rights to WLWCA and would that affect the reintroduction effort?

A: In July 2002, BP America Production White Lake Properties donated the WLWCA property, which it previously owned and managed, to the State of Louisiana. White Lake Preservation Inc, a non-profit, managed the property for the State until July 2005, when the Louisiana Department of Wildlife and Fisheries (LDWF) took control.

BP retains the mineral rights to WLWCA. Those rights can be distributed by BP to others who lease from them. In order to drill a well, the lessee would need either a State coastal use permit (for the southern portion of WLWCA) or a US Army Corps of Engineers (Corps) permit (for the northern portion of WLWCA) and a use permit (or agreement) from LDWF. As such, LDWF would have control over how oil and gas exploration would occur on the WLWCA. Louisiana would be able to ensure that any drilling activities would fully consider whooping crane reintroduction efforts. There is currently one active oil well on WLWCA and several inactive ones. Impacts on the reintroduced nonmigratory whooping cranes are not anticipated due to extraction activities related to oil and gas on WLWCA that are conducted in compliance with applicable laws and regulations.

Q: Were these wetlands impacted by the Deepwater Horizon oil spill that impacted southeastern Louisiana coastal areas?

A: The Deepwater Horizon/MC252 Oil Spill and cleanup activities have not affected the WLWCA release area which is located in a fresh-to-brackish marsh, north of the Gulf of Mexico shoreline and about 17 miles from the coast. Additionally, there are multiple physical barriers to stop crude oil from entering WLWCA such as the Gulf of Mexico Beach Rim, Levees, Water Control Structures, Locks, and Spill Control Equipment. Two small segments of shoreline approximately 30 to 45 miles (28 to 57 km) away from the WLWCA experienced light oiling (on Marsh Island and on adjacent

western shore) during the oil spill. As of November 5, the nearest location of coastal areas with oiling are located on the eastern edge of Atchafalaya Bay, approximately 78 miles (125 km) or farther away from the WLWCA in St. Mary and Terrebonne Parishes.

Q: Why was it decided to make the Louisiana flock nonmigratory?

A: Historically, a nonmigratory population of whooping cranes occurred in Louisiana. The Service and LDWF are attempting to establish a nonmigratory flock as it occurred historically and doing so also avoids interactions with the existing Aransas-Wood Buffalo Population in Texas and the Eastern Migratory Population.

Q: If this reintroduction is successful, will the whooping crane be taken off the endangered species list?

A: If this reintroduction is successful and the ongoing reintroduction of a migratory whooping crane population in the Eastern United States also is successful, the federal status of the species could be changed, eventually, from endangered to threatened. This is a less restrictive designation for species that are likely to become endangered in the foreseeable future. While it may be possible in the long term to fully recover the species, removal of the whooping crane from the federal list of threatened and endangered species would require further steps.

Q: What did the Service do to meet requirements under the National Environmental Policy Act (NEPA) in making this designation?

A: The Service published a Notice of Availability in the August 19, 2010, *Federal Register* announcing the draft Environmental Assessment (EA) of the proposal to reintroduce a nonmigratory flock of whooping cranes in Louisiana was available for public review and comment. The EA analyzed a number of different alternatives for accomplishing the goal of reintroducing whooping cranes as a nonmigratory population in Louisiana. We received several comments on the EA and made changes as appropriate before finalizing it.

Reintroduction Components

Q: Where would the chicks for the whooping crane reintroduction come from?

A: The chicks will come from existing captive breeding flocks. The three primary captive breeding centers are located at the U.S. Geologic Survey's Patuxent Wildlife Research Center in Maryland, the International Crane Foundation in Wisconsin, and the Calgary Zoo in Alberta, Canada.

Q: Where would the reintroduction candidate cranes be reared?

A: The crane chicks in 2010 would be captive-reared at the U.S. Geological Survey's Patuxent Wildlife Research Center and remain at that facility until they are transferred to Louisiana for a February 2011 release. Birds in the future may also be raised at the Audubon Species Survival Center in New Orleans, or the International Crane Foundation in Wisconsin.

Q: What happens to the young birds after they have been released at White Lake?

A: Whooping cranes will be managed and monitored by Louisiana Department of Wildlife and Fisheries and other personnel prior to and after release. The birds will be observed daily while they are in the conditioning-gentle release pen. Facilities for captive maintenance of the birds will be modeled after facilities at the Patuxent Wildlife Research Center and the International Crane Foundation. To promote wildness in the birds, every attempt is made to provide as natural an experience as possible as the pen will be constructed in a wetland habitat and access by people restricted. The pen does not have a top and thus the cranes can come and go and use the habitat within and nearby. The pen will also be provisioned with food and fresh water until they gain experience to forage on their own. The pen will help improve survival of the young birds as it will also provide a safe place to roost away from potential predators.

Q: How will you keep track of these birds after they have been released?

A: To ensure contact with the released birds, each crane will be equipped with a legband-mounted radio transmitter and/or a solar powered global positioning system (GPS) satellite transmitter. Subsequent to being gently released, the birds will be monitored regularly to assess movements and dispersal from the area of the release pen. Whooping cranes will be checked regularly for mortality or indications of disease (listlessness, social exclusion, flightlessness, or obvious weakness). Social behavior (e.g., pair formation, dominance, cohort loyalty) will also be evaluated.

Q: What would you feed and how would you feed the cranes during the early release period?

A: The birds would be fed a pelletized food that was developed by USGS/Patuxent Wildlife Research Center and commercially produced. It contains all the minerals, proteins and vitamins needed by the growing birds, as well as medication to prevent parasites. The chicks would also be allowed to forage on natural foods as they grow older so that they could make the transition to survival in the wild.

Q: After the cranes have learned to fly, is there a chance that they would leave the White Lake area and fly to nearby wetlands?

A: At that early stage of life, the birds may wander but they do not go far. This behavior is natural as the birds learn about their environment and begin to explore. Whooping cranes within the proposed Louisiana nonmigratory population are expected to occur mostly within the White Lake Wetlands Conservation Area and the adjacent wetlands in Vermilion Parish. The marshes and wetlands of southwestern Louisiana are expected to receive occasional use by the cranes and may be used in the event of future population expansion.

Q: Would people be allowed to view any part of the crane reintroduction area at White Lake?

A: Maintaining the cranes' wild nature is critical to their future survival in the wild after they have been released. The Service will need to prevent the birds from associating food or care of any sort from contact with humans during the release period. Currently, the Louisiana Department of Wildlife and Fisheries allows limited, controlled access to the White Lake Wetlands Conservation Area. If this reintroduction is successful, the Service hopes that someday the public will be able to view these birds in the Louisiana coastal marshes.

Endangered Species Act Protection for a “Non-essential Experimental Population” of Whooping Cranes

Q: Why does the proposal to reintroduce a flock of whooping cranes include designating the flock as a “non-essential experimental” population?

A: The designation under this rule allows for management flexibility under the Endangered Species Act, which has already demonstrated and can be expected to result in increased public acceptance of the reintroduction.

This designation is made possible by provisions contained within section 10(j) of the Endangered Species Act, as amended. The population is considered *experimental* because it is being (re)introduced into suitable habitat that is outside of the whooping crane’s current range, but within its historic range. It is designated *not essential* because the likelihood of survival of the whooping crane, as a species, would not be reduced if this entire population was not successful and was lost.

Continued existence of the whooping crane as a species has been determined to be secure based upon the existence of the wild, migratory population and the captive breeding flocks in multiple locations. The non-essential, experimental population status will protect this whooping crane population as appropriate to conserve the population, while still allowing the presence of the cranes to be compatible with routine human activities in the reintroduction area. The Service believes the non-essential experimental designation will allow it to retain the full support of the public which will be critical to the success of the project.

Q: What would happen if someone shoots one of the whooping cranes in this population?

A: Because of the experimental non-essential designation in this rule, if the shooting is determined to be accidental and occurred incidentally to an otherwise lawful activity that was being carried out in full compliance with all applicable laws and regulations, no prosecution under the Endangered Species Act would occur. In the case of an intentional shooting, the full protection of the Endangered Species Act could apply.

Q: Are there other laws that would protect this flock of whooping cranes?

A: Yes, they would be protected under applicable state laws for non-game species and the federal Migratory Bird Treaty Act, which protects all birds that migrate such as herons, egrets, and songbirds.

Q: What would happen if whooping cranes from this population try to nest on my property - will this affect how I can use my property?

A: As a result of this rule's provisions to provide management flexibility, no conflicts are envisioned between the whooping cranes' reintroduction and activities on private lands. Any disturbance of nesting cranes on private property that is accidental or incidental to an otherwise lawful activity, such as recreation (hunting, trapping), agricultural practices (plowing, planting, application of pesticides, etc.), construction or water management would not be considered an illegal activity under the Endangered Species Act.

Crane Biology

Q: Don't we already have cranes in Louisiana?

A: Whooping cranes occurred historically in Louisiana – both migratory and nonmigratory birds. The last whooping was removed from the wild in Louisiana in 1950. Sandhill cranes, a similar species, are known to occur in Louisiana during the fall and winter.

Q: How are whooping cranes different from sandhill cranes?

A: Whooping cranes stand nearly five feet tall, and are the tallest birds in North America. Sandhill crane adults are about four feet tall. Adult whooping crane plumage is white with black wing tips, whereas adult sandhills are grey or sometimes grey and tan. They both have a bald spot – a red, bare patch of skin on their forehead. Whooping cranes are aquatic birds, spending virtually all of the time in wetlands. Sandhill cranes will use wetlands, but also feed in upland habitats.

Whereas sandhill cranes have adapted to human agriculture and feed extensively on grain, seeds and tubers, whooping cranes prefer marsh habitat and prefer to eat crabs, invertebrates, frogs and minnows. And of course, sandhill cranes are much more common than the endangered whooping crane. Sandhill cranes occur throughout much of North America and number in the tens of thousands. Whooping cranes are known from a limited area in North America and the total world population is about 550 individuals.

Q: What is the current status of the whooping crane - is it in danger of extinction?

A: The whooping crane is a federally listed endangered species in the United States. It is one of the world's rarest birds. The species was thought to number "in the thousands" in North America before European settlement caused population declines. Archival evidence suggests that by 1865, its population was 700 to 1,400. Their numbers dropped rapidly and by 1890 the whooping crane had disappeared from the heart of its breeding range in the north central United States. By 1938, only two small flocks remained - one nonmigratory flock in southwest Louisiana, and one migratory flock that nested in Canada and wintered in Texas. In 1941, there were only 21 whooping cranes in North America.

From near extinction 60 years ago with only 15 or 16 individuals, the protection provided by the Endangered Species Act and captive breeding efforts have enabled whooping crane populations to slowly increase. The natural flock which breeds in Canada and winters in Texas is approaching 290 individuals, there are 21 nonmigratory birds in Florida, 106 in the Eastern Migratory population and approximately 150 in captivity.

While whooping cranes are not in imminent danger of extinction, extinction in the wild without reintroductions would be likely because of the small size of the single wild natural migratory flock. For this reason, multiple efforts are underway to reduce the danger of extinction by increasing populations in the wild, including a new migratory population in the East.

Q: What caused the whooping crane's near extinction?

A: Several factors contributed to the historic decline of whooping cranes. Much of their wetland habitat was drained and converted to farm land. The migratory populations in the central U.S. and

Canada lost large portions of their breeding and wintering habitat in the late 1800s and early 1900s. Then the nonmigratory population lost much of its habitat in the coastal marshes and prairies of Louisiana and Texas as wetlands were converted for rice production. In addition to outright habitat loss, these activities increased the amount of human disturbance, which may have had adverse effects on crane behavior. At the same time, hunting, egg collecting, and specimen collecting were a substantial drain on the population, particularly from 1870 to 1920.

Q: What are the current threats to whooping cranes?

A: The primary threats to whooping cranes relate to the species' low abundance and limited distribution. Both factors make the species particularly susceptible to naturally occurring catastrophic events such as drought or hurricanes and human-caused catastrophic events such oil/chemical spills. Also, at this time, only the Aransas-wood Buffalo population is consistently able to fledge chicks, which significantly slows the species' ability to expand its distribution.

Q: Why don't you expect the Louisiana reintroduced whooping cranes to migrate?

A: Migration is a behavior that must be learned by cranes, and the Louisiana whooping cranes are expected to remain in areas near where they were released. The dispersal of two pair of cranes from the nonmigratory flock in Florida is thought to have occurred as a result of a severe drought in Florida which made their home marshes unsuitable for breeding. Dispersal is expected to be rare and infrequent.

Q: What habitats do whooping cranes use?

A: Whooping cranes spend most of their time in shallow water wetlands where they feed, roost, and nest. Nests are built in freshwater marshes on small islands of bulrushes, cattails, and sedges that provide protection from predators. At night, whooping cranes stand (roost) in shallow water where they are safe from coyotes and bobcats.

Q: What do whooping cranes eat?

A: Whooping cranes are generalists, quite adaptive, and will utilize the food sources that are available. The Louisiana nonmigratory whooping cranes are being released into freshwater habitats. We expect that they will feed in shallow water wetlands and eat insects, insect larvae,, minnows, fish, tadpoles, frogs snakes, crawfish, and other food items. Like other wading bird species, whooping cranes will target wetlands that are drying down and concentrating prey items. Whooping cranes will also target areas that have been flooded or burned. There they forage for acorns, snails, insects, rodents, and other food items.

Q: How long do whooping cranes live?

A: Whooping cranes may live greater than 30 years in the wild. Captive birds have lived up to 40 years.

Q: How many young does each whooping crane pair produce each year?

A: In Wood Buffalo Park, 70 pairs of cranes produce from 15 to 40 chicks each year. Whooping cranes

do not start breeding until they are three to five years old even though they have their adult plumage by the time they are a little over one year old. When they do mate, they are monogamous and have the same mate for life; although, if one of the pairs dies, the remaining bird will mate with another.

Whooping cranes usually nest once each year, but sometimes they will lay a second clutch of eggs if their first is destroyed. Occasionally a pair will skip a nesting season if conditions are unsuitable or for no apparent reason.

Whooping crane pairs lay two eggs in late April to mid-May, with hatching one month later. The parents share incubation and rearing duties although the female takes the primary role in feeding and caring for the young. Most often, successful nesting pairs raise one young each year. As a rule, fierce competition between the two chicks usually results in the death of the smaller, weaker sibling.

Occasionally, when food supplies are abundant and the chicks are perhaps more evenly matched in size and strength, whooping cranes have been known to successfully raise two chicks.

Q: Are the remaining whooping cranes genetically diverse enough to survive into the future?

A: The Aransas population reached a low of 15 birds in 1941 which resulted in a decline in diversity and changes in gene frequencies. However, the population continues to expand and genetic diversity, though reduced, appears to be comparable to many other crane populations.