GREAT LAKES PIPING PLOVER CRITICAL HABITAT QUESTIONS AND ANSWERS

The U.S. Fish and Wildlife Service (Service) is designating critical habitat for the piping plover on its breeding grounds in the Great Lakes area. Critical habitat is a term used in the Endangered Species Act that refers to specific geographic areas that contain habitat features essential for the conservation of a threatened or endangered species. These areas may require special management considerations or protection for the species. The final critical habitat determination for the Great Lakes breeding habitat will be published in the Federal Register. The following frequently asked questions are provided with responses to help you understand the critical habitat designation for the piping plover.

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1. What is a piping plover?

The piping plover (*Charadrius melodus*), named for its melodic mating call, is a small, pale-colored North American shorebird. The bird's light sand-colored plumage blends in with the sandy beaches and shorelines that are its primary habitat. It weighs 1-2 ounces (43-63 grams) and is 6-6 ½ inches (17-18 centimeters) long. During the breeding season the legs are bright orange and the short stout bill is orange with a black tip. There are two single dark bands, one around the neck and one across the forehead between the eyes. Plumage and leg color help distinguish this bird from other plovers. The female's neck band is often incomplete and is usually thinner than the male's neck band. In winter, the bill turns black, the legs remain orange but pale, and the black plumage bands on the head and neck are lost. Chicks have speckled gray, buff, and brown down, black beaks, orange legs, and a white collar around the neck. Juveniles resemble wintering adults and obtain their adult plumage the spring after they fledge.

2. Where do piping plovers live?

Historically, piping plovers bred across three geographic regions. These regions include: the United States and Canadian Northern Great Plains from Alberta to Manitoba and south to Nebraska; the Great Lakes beaches; and the Atlantic coastal beaches from Newfoundland to North Carolina. Currently, piping plovers live in an area similar to their historical range, although the numbers of those breeding in the Great Lakes region have decreased significantly since the 1930s. The Great Lakes breeding population is now found only in Michigan. Generally, piping plovers favor open sand, gravel, or cobble beaches for breeding. Breeding sites are generally found on islands, lakeshores, coastal shorelines, and river margins.

Piping plovers winter in coastal areas of the United States from North Carolina to Texas. They also winter along the coast of eastern Mexico and on Caribbean islands from Barbados to Cuba and the Bahamas. Information from observation of color-banded piping plovers indicates that the winter range of the three breeding populations overlap, to a significant degree. Therefore, the source breeding population of a given wintering individual cannot be accurately determined in the field, without having marked the individual.

Piping plovers begin arriving on the wintering grounds in early July, with some late nesting birds arriving in September. A few individuals can be found on the wintering grounds throughout the year, but sightings are rare in June and early July.

3. What do piping plovers eat?

Piping plovers feed along beaches and intertidal mud and sand flats. Primary prey for piping plovers includes worms, crustaceans, insects, and occasionally bivalve mollusks.

4. How many piping plovers are there?

2000 census numbers: Great Lakes - approximately 30 breeding pairs (all are in Michigan). 1996 census numbers: Northern Great Plains (including the Canadian Prairie region) - approximately 1,398 breeding pairs; and the Atlantic Coast - approximately 1,372 breeding pairs.

5. Is the piping plover an endangered species?

The piping plover first received protection under the Endangered Species Act (ESA) in 1985. Piping plovers nesting in the Great Lakes are listed as endangered; piping plovers nesting along the Atlantic Coasts and in the northern Great Plains of the U.S. and Canada are listed as threatened. All piping plovers on the wintering grounds are considered threatened.

6. What do the terms "endangered" and "threatened" mean?

An endangered species, by definition, is one that is in danger of extinction throughout all or a significant portion of its range. A threatened species is one likely to become endangered within the foreseeable future. Except for special circumstances outlined at the time of listing, regulations applicable to endangered species are also applicable to threatened species.

7. Why are piping plover populations declining? What are the threats to the piping plover?

Piping plovers often nest on beaches where people like to live and enjoy the shoreline. Their nests accidently get stepped on or crushed by people and vehicles. The presence of people also may cause the birds to desert the nest, exposing eggs or chicks to the hot sun and predators. Interruption of feeding may stress juvenile birds during critical periods in their life cycle. Pets, especially dogs, may harass or kill the birds. Many of the coastal beaches traditionally used by piping plovers for nesting, feeding, and roosting have been lost to commercial, residential, and recreational developments. Also, developments near beaches provide food that attracts increased numbers of predators such as racoons, skunks, and foxes. Water level manipulation along the major rivers may also lead to loss of breeding habitat. In order to recover the piping plover and remove it from the endangered species list, threats to reproductive success at breeding grounds must be addressed. Availability of quality foraging and roosting habitat in the regions where this species winters is necessary in order to ensure that an adequate number of adults survive to migrate back to breeding sites and successfully nest.

8. What is being done to protect the piping plover?

A variety of protection measures are implemented as prescribed in recovery plans, and include:

Listing: In 1985, the Great Lakes breeding population of the piping plover was listed as

endangered, while populations in all other portions of the species' range were listed as threatened.

Recovery Plans: The Service developed recovery plans that describe actions that need to be taken to help the bird survive and recover. Recovery plans currently exist for all three areas of the breeding range. These recovery plans are in various stages of revision.

Research: Several cooperative research groups have been set up among Federal and state agencies, university and private research centers, and the Canadian Wildlife Service. Studies are being conducted to estimate numbers, evaluate reproductive success, monitor long-term changes in populations, and determine where plovers breed and winter. Other studies have addressed the effectiveness of captive breeding efforts. The effectiveness of predator exclosures and habitat manipulations have also been evaluated.

Management and Habitat Protection: Measures to ensure successful nesting are conducted each year, including controlling human access to nesting areas, monitoring nesting activity, and protecting nests, eggs and young birds from predators. This requires intensive management efforts and significant participation by dedicated volunteers. In Michigan, several landowners have formally agreed to protect plover nesting habitat. Protection of habitat also requires constant vigilance and includes managing residential and industrial development to ensure that projects are designed to limit impacts to habitat, and properly managing water flow to ensure that the geologic processes which have historically maintained habitat for the plover can continue to function.

Public Education: Many states and private agencies are running successful public information campaigns to raise awareness of the plover's plight. In Michigan, residents of coastal communities where the birds nest have been contacted by an "ambassador" and provided information about the plight of the piping plover.

9. What are the recovery goals for the piping plover?

The recovery goals for the piping plovers breeding in the Great Lakes were outlined in the Recovery Plan for the Great Lakes and Northern Great Plains Piping Plover. These goals are to have 100 breeding pairs in the State of Michigan and 50 breeding pairs in other Great Lakes states and for these numbers to remain stable for 15 years. Goals for wintering areas have been suggested in existing recovery plans and include protection of specific sites that provide the essential requirements for the wintering populations of the piping plover. As populations in all three breeding areas begin to recover, densities on both the breeding and wintering grounds will increase. In order to achieve recovery, it is necessary to maintain sufficient habitat to ensure the survival of these birds.

10. What protection does the piping plover receive as a listed species?

The ESA prohibits the import, export, or interstate or foreign sale of protected animals and plants without a special permit. It also makes "take" illegal – forbidding the killing, harming, harassing, possessing, or removing of protected animals from the wild. Federal agencies must consult with the Service to conserve listed species and ensure that any activity they fund, authorize, or carry out will not jeopardize the continued survival and recovery of a listed species. This is referred to as a section 7 consultation process.

Under section 10 of the ESA, permits may be issued to take listed wildlife species for scientific purposes, to enhance the propagation, survival or recovery of the species, and for incidental

take in the course of certain otherwise lawful activities.

In addition, the ESA requires that Federal agencies not only take action to prevent further loss of a species, but also pursue actions to recover species to the point where they no longer require protection and can be de-listed.

11. What is critical habitat?

Critical habitat is a term used in the Endangered Species Act of 1973, as amended. It refers to specific geographic areas that are essential for the conservation of a threatened or endangered species and that may require special management consideration or protection. These areas do not necessarily have to be occupied by the species at the time of designation. This means that areas must be identified which will allow for the protection of the current population, and any population increases that may be required to achieve recovery (allowing the species to be removed from the endangered species list).

12. Do listed species in critical habitat areas receive more protection?

A critical habitat designation does not set up a preserve or refuge, it only affects activities with Federal involvement, such as Federal funding or a Federal permit. Listed species and their habitats are protected by the ESA whether or not they are in areas designated as critical habitat.

Designation of critical habitat can help focus conservation activities for a listed species by identifying areas that contain the physical and biological features that are essential for the conservation of that species. Critical habitat also alerts the public as well as land managing agencies to the importance of these areas, but the ESA only imposes additional restrictions on actions or programs that are authorized, funded, permitted, or carried out by a Federal agency.

13. What is the purpose of designating critical habitat?

Designating critical habitat is a tool to identify areas that are important to the recovery of a listed species. It is also a tool used to notify Federal agencies of areas that must be given special consideration when they are planning, implementing, or funding activities. Federal agencies are required to consult with the Service on actions they carry out, authorize, fund, or permit, that may affect critical habitat. A critical habitat designation has no effect when a federal agency is not involved. For example, a landowner undertaking a project on private land that involves no Federal funding or permit has no additional responsibilities if his property falls within critical habitat boundaries.

14. Do Federal agencies have to consult with the Service outside critical habitat areas?

Not always. It is the responsibility of the Federal agency to determine if a proposed project may affect threatened or endangered species. If a "may affect" determination is made, that requires the Federal agency to initiate the section 7 process. Even when critical habitat is not designated, Federal agencies must consult with the Service, if an action that they fund, ~~or~~ authorize, or permit may affect listed species.

15. What impact will critical habitat designation have on beach use?

There may be a need on some Federally managed beaches to temporarily restrict use in some areas during the spring and early summer to allow for piping plovers to nest. However, most beaches within designated critical habitat do not come under Federal authority, and therefore are not affected by the designation. In those limited cases we will work with the Federal agency to protect potential breeding sites while keeping any restrictions on humans' enjoyment of the areas as minimal as possible.

16. What activities could adversely affect critical habitat?

Some activities could have an adverse effect on piping plover critical habitat. Such activities might include:

- dredging and dredge spoil placement
- seismic exploration
- construction and installation of facilities, pipelines, and roads associated with oil and gas development
- oil spills and oil spill clean-up
- construction of dwellings, roads, marinas, and other structures and associated impacts such as staging of equipment and materials
- beach nourishment, stabilization and cleaning
- certain types and levels of recreational activities such as all-terrain vehicle activity
- stormwater and wastewater discharge from communities
- sale, exchange, or lease of Federal land that contains suitable habitat that is likely to result in the habitat being degraded
- military maneuvers.

Specific threats are likely unique to each area and are best addressed in recovery plans, management plans, and section 7 consultations.

17. How does the Service determine which areas to designate as critical habitat?

Biologists identify physical or biological habitat features needed for life and successful reproduction of the species. These features are known as primary constituent elements and include, but are not limited to:

- space for individual and population growth and for normal behavior;
- food, water, air, light, minerals, or other nutritional or physiological requirements;
- cover or shelter;
- sites for breeding and rearing of offspring; and
- habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

Areas containing these elements of the habitat are identified in the landscape. By law, the Service is required to identify sufficient areas containing these characteristics to ensure conservation of the listed species.

18. Are all areas within the piping plover critical habitat boundaries considered critical habitat?

No. Paved areas and areas that contain structures such as marinas, boat ramps, and parking lots are not critical habitat. Areas that are now ocean or lake are also not considered critical habitat although if these areas , because of coastal dynamics, become land in the future, they will be critical habitat.

19. Does the ESA require an economic analysis as part of designating critical habitat?

Yes. The Service must take into account the economic and other relevant impacts of specifying any particular areas as critical habitat. The Service may exclude any area from critical habitat if it determines that the benefits of such exclusion outweigh the benefits of specifying the area as part of critical habitat unless it determines, based on the best scientific and commercial data available, that the failure to designate the area as critical habitat will result in the extinction of the species. The Service contracted independent economists to develop an economic analysis for the critical habitat designation. The draft analysis was made available during the public comment period. According to the analysis, in general, while critical habitat designation for the piping plover may lead to additional consultations by the Service and other Federal agencies, project modifications that will be required as a result of the designation are expected to be minimal. The draft economic analysis and final addendum are available on the Service's website at http://midwest.fws.gov/endangered/pipingplover.

20. Does this economic analysis have any effect on the decision to list a species?

No. Under the ESA, a decision to list a species is made solely on the basis of scientific data and analysis.

21. What is the impact of a critical habitat designation on economic development?

The vast majority of activities that require a section 7 consultation with the U.S. Fish and Wildlife Service proceed with little or no modification. If a proposed project were to affect critical habitat of the piping plover, consultation under section 7 of the Endangered Species Act would be required. During this process, coordination between the agencies involved would examine modifications to the project that would reduce impacts to piping plover and designated critical habitat areas. In cases where critical habitat has been designated for areas occupied by the listed species, consultations would likely have been required, regardless of the designation of critical habitat. In those cases, critical habitat designation would have little or no additional impact on economic development.

22. For how many species has the Service designated critical habitat?

To date, the Service has designated critical habitat for 135 of the 1,243 species listed as threatened or endangered.

23. Why hasn't the Service designated critical habitat for more species?

In the past the Service assigned a low priority to designating critical habitat because we believe that a more effective use of limited resources is to place imperiled species on the threatened and endangered species list. Recent court decisions however, have required the Service to designate critical habitat for an increasing number of listed species.

24. Why is critical habitat being designated for the piping plover?

Section 4(a)(3) of the ESA states that when a species is added to the threatened or endangered species list, we must designate critical habitat "to the maximum extent prudent." The 1985 final listing rule for the piping plover did not include a critical habitat designation, but deferred the determination for one year. We did not determine whether critical habitat designation was prudent or designate critical habitat by the end of that year. Because of this omission, in December 1996, Defenders of Wildlife filed a lawsuit against the Department of the Interior and the Service for failing to designate critical habitat for the piping plover. As a result of the lawsuit, the court has ordered the Service to designate critical habitat for the piping plover in the Great Lakes breeding area by April 30, 2001. The Service was also ordered to designate critical habitat for the Great Plains population by March 15, 2002.

25. What did the Service do with the comments it received?

Public comments are an important factor in making our final decision on how to proceed with the proposed action. All substantive input received by the close of the comment period was considered in our decision-making process. The Service does not reply to individual comments, but the final *Federal Register* document provides responses to significant and relevant issues raised by those who commented and explains why suggested changes are, or are not, incorporated. In finalizing the critical habitat designation, the Service revised its proposal after reviewing input received from the public.

26. How does the final determination differ from the proposal?

Based on a review of public comments received on the proposed determination of critical habitat for the Great Lakes breeding population of the piping plover, we re-evaluated our proposed designation of critical habitat for the piping plover. As a result, we made three significant changes in the final determination.

(1) We removed three sites -- Pensaukee Harbor and Peshtigo Point in Wisconsin and Erie Pier/Hearding Island (retaining Interstate Island) in Minnesota -- from the final critical habitat designation. We determined that these sites do not have, and are unlikely to develop, the features and habitat characteristics that are necessary to sustain the species and thus are no longer considered essential for the conservation of the species.

(2) The inland boundary for all critical habitat units was changed from the proposed 1 km to 500 meters (1,640 feet) inland from normal high water line. The proposed 1 km (0.6 mi.) inland boundary was intended to incorporate blow-out areas and extensive dune-wetland systems. These inland areas provide important foraging habitat as well as cobble pans between the dunes where plovers occasionally nest. Information received during the comment period indicates that the majority of the dune systems within designated critical habitat do not extend further than 500 meters (1,640 feet) inland from the normal high water line.

(3) We excluded lands covered by an approved Habitat Conservation Plan (HCP) from the final determination of critical habitat for the Great Lakes breeding population of the piping plover. In our proposed determination of critical habitat for the Great Lakes population of the piping plover, we asked for public comment on the appropriate relationship between approved

HCPs and designated critical habitat. After considering the comments we received, we have chosen to evaluate areas covered by an approved HCP for the piping plover for exclusion under the benefits-balancing test found in section 4(b)(2) of the Act. This section allows us to exclude areas upon determination that the benefits of excluding the area outweigh the benefits of including the area in the critical habitat designation, provided the exclusion would not result in the extinction of the species.

Currently, one approved HCP (The Magic Carpet Woods Association HCP) exists for the piping plover in the Great Lakes region. This HCP covers approximately 2,600 feet (792 meters) of shoreline along Cathead Bay in Leelanau County, Michigan. This plan addresses the piping plover as a covered species and provides conservation management and protection for the species. We evaluated this plan and determined that the conservation management measures and protection afforded the piping plover are sufficient to assure its conservation on the involved lands.

27. The original proposal for piping plover critical habitat included approximately 189 miles (305 km) of shoreline. This final determination includes approximately 201 miles (325 km) of shoreline as designated critical habitat. Are you adding more land to the critical habitat designation?

No, we are not adding more land to this final determination. In fact, more than 8 miles of shoreline (13 km) were removed from the proposed critical habitat determination. Most of the apparent shoreline additions are the result of corrections made in response to public comments. While the descriptions in the proposed rule accurately represented the areas, in some cases the length of the shoreline was not accurate and was corrected in this final determination.

28. Why is unoccupied habitat being designated?

Currently, there are about 30 breeding pairs of piping plovers in the Great Lakes area, all of which occur in Michigan. The Great Lakes and Northern Great Plains Piping Plover Recovery Plan (1988) establishes a recovery goal of 150 breeding pairs in the Great Lakes watershed. This number is considered a minimum for the recovery of the species and eventual removal from the protections of Act. Of these 150 breeding pairs, at least 100 are planned in Michigan and at least 50 in other Great Lakes states. In order to achieve this recovery goal, additional habitat areas are needed beyond those currently occupied by the species. We have designated unoccupied areas as critical habitat on the basis of historical occurrence and the existence of some or all of the primary constituent elements.

29. When does the final determination become effective?

This final determination of critical habitat goes into effect 30 days following its publication in the *Federal Register*.

30. Where can I get more information on the piping plover and critical habitat?

For more information, visit our web sites at: http://midwest.fws.gov/endangered/pipingplover You may also telephone the Fort Snelling, Minnesota, Division of Endangered Species office at 612-713-5350.