INTRA-SERVICE SECTION 7 BIOLOGICAL EVALUATION FORM

I. Region: 3; Minnesota

II. Service activity: Migratory Birds and State Programs Section 7 Consultation on the Implementation of the Public Resource Depredation Order (PRDO) for Double-crested Cormorant (DCCO) Management in the State of Minnesota.

III. Pertinent species and critical habitat:

A. Listed species and/or critical habitat within the action area:

Piping plover	(*Charadrius melodus*) [Endangered (E) and Threatened (T)]
Bald eagle	(*Haliaeetus leucocephalus*) [T]
Whooping Crane	(*Grus americanus*) [Experimental, non-essential (XN)]

B. Proposed species and/or proposed critical habitat within the action area

None

C. Candidate species within the action area:

None

IV. Location: The PRDO applies to all lands and freshwaters where DCCOs may be found nesting, loafing, roosting, feeding, and migrating in the State of Minnesota. This includes ponds and lakes (natural and artificial), slow-moving rivers, open coastlines, and small rocky or sandy islands. Nests are built in trees, on structures, or on the ground. Nesting trees and structures are usually standing in or near water, on islands, in swamps, or on tree-lined lakes. Roosts and resting places are often on exposed sites such as rocks or sandbars, pilings, high-tension wires, or trees near favored fishing sites.

V. Description of proposed action: The proposed action is the control of DCCOs through a combination of non-lethal and lethal techniques under the PRDO as described in the Alternative 1 of the Draft Environmental Assessment entitled "Reducing Double-crested Cormorant Damage in Minnesota" (posted at http://www.fws.gov/midwest/nepa/MNcormorant/index.html). Currently, three options are available to reduce resource damages associated with DCCOs in Minnesota: (1) birds can be harassed (with shotgun blasts, fire crackers, propane cannons, or other scare devices); (2) the U.S. Fish and Wildlife Service (Service) can issue agencies or individuals a permit to take DCCOs (via shooting, egg oiling/destruction, or nest destruction); and (3) the Aquaculture Depredation Order (50 CFR 21.47) can be used to reduce depredation of aquaculture stock at private commercial aquaculture facilities and State and Federal fish hatcheries.

Through the Final Environmental Impact Statement on DCCO management in the United States and its associated regulations (50 CFR 21.48), the Service supplemented these three options with one additional one that can be used in the State of Minnesota - the PRDO. The PRDO authorizes State fish and wildlife agencies, Federally-recognized Tribes, and State Directors of the Wildlife Services program of the U.S. Department of Agriculture Animal and Plant Health Inspection Service (collectively termed "Agencies") to take, without a permit, DCCOs found committing or about to

commit, and to prevent, depredations on the public resources of fish (including hatchery stock at Federal, State, and Tribal facilities), wildlife, plants, and their habitats. Landowner approval is required and other terms and conditions apply to the PRDO. The specific control actions authorized under the PRDO include:

1) *Shooting:* Shooting DCCOs is a highly targeted specific technique that can be used to reduce local DCCO numbers and/or reinforce non-lethal harassment. In the case of DCCOs, shooting is always conducted with shotguns or rifles. When used by trained personnel, the risk of inadvertently taking nontarget species is minimal. Shooting can be conducted from a distance and while this quality minimizes the likelihood of direct human disturbance to species co-occurring with DCCOs, the noise associated with gunfire could cause indirect disturbance.

2) *Egg oiling and destruction:* DCCO eggs have been destroyed in attempts to reduce recruitment into populations and to eliminate colonies at specific locations. Egg oiling is a method of suppressing reproduction of nuisance birds by spraying a small quantity of 100% corn oil on eggs in nests. The oil prevents exchange of gases and causes asphyxiation of developing embryos. The Environmental Protection Agency has ruled that use of corn oil for this purpose is exempt from registration requirements under the Federal Insecticide, Fungicide, and Rodenticide Act. This method is extremely target-specific. However, it requires direct physical contact with DCCOs, their eggs, or their nests, which necessitates immediate human presence at nest and roost sites. Such control efforts are typically conducted on foot by a small number of personnel in order to minimize incidental disturbance to other species, especially at nest colonies.

3) *Nest destruction:* Nest destruction involves the removal of nesting materials during the construction phase of the nesting cycle. Nest destruction on the ground simply involves the physical breakup of nest structures. Tree nests present a greater challenge. Nests can be destroyed manually or by use of high pressure water to dislodge nests from trees.

4) *Cervical dislocation:* Cervical dislocation is sometimes used to euthanize birds that are captured by hand or in live traps and when relocation is not a feasible option. The bird is stretched and the neck is hyper-extended and dorsally twisted to separate the first cervical vertebrae from the skull. The American Veterinary Medical Association approves this technique as a humane method of euthanasia. In the case of DCCOs, this is a secondary technique that will generally be used only when damage control personnel are already on site using other methods such as egg oiling.

5) *CO_2 asphyxiation:* CO_2 is sometimes used to euthanize birds which are captured by hand or in live traps and when relocation is not a feasible option. Live birds are placed in a container such as a plastic 5-gallon bucket or chamber and sealed shut. CO_2 gas is released into the bucket or chamber and birds quickly die after inhaling the gas. This method is approved as a euthanizing agent by the American Veterinary Medical Association. In the case of DCCOs, this is a secondary technique that will generally be used only when damage control personnel are already on site using other methods such as egg oiling.

VI. Determination of effects:

A. Description of effects of the action on species and critical habitats in Items III:

Piping plover (*Charadrius melodus*) [E, T]: The piping plover is listed as endangered (Great

Lakes breeding population) and threatened (Northern Great Plains breeding population) in Minnesota. Piping plovers nest on sandy beaches, sandbars, dredge disposal islands, and drained floodplains. They are generally solitary nesters but may nest with terns. The Minnesota breeding population of piping plovers has been extirpated and the future outlook for breeders is questionable. However, piping plovers (largely composed of the Great Plains population) are rare but regular migrants in Minnesota during mid-April to mid-May and mid-July to early-September. They especially frequent the shores and islands of Minnesota's larger lakes, including Leech Lake, the site of proposed DCCO control activities, and typically stay 1-3 days. Activities authorized by the proposed action could lead to harassment (i.e., incidental take) of piping plovers. Piping plover critical habitat has been designated on Interstate Island, Lake Superior, in St. Louis County (Federal Register 66: 22947). No nesting has occurred on the island and DCCOs do not use the island.

Bald eagle (*Haliaeetus leucocephalus*) [T]: The bald eagle was proposed for delisting in 1999. The aquatic habitat preferences of the bald eagle make it likely to co-occur with DCCOs in Minnesota. An active nest is located on Big Pelican Island, adjacent to Little Pelican Island, which is the DCCO nesting site at Leech Lake. Because bald eagles are a widely recognized bird, the risk of direct take of bald eagles is low. However, it is possible that eagles could be harassed indirectly by activities associated with the proposed action (because of human disturbance in the vicinity of their nests or roosts).

Whooping crane (*Grus americana*) [XN]: Since 2001, successive cohorts of an experimental, nonessential population of whooping cranes have been raised at Necedah National Wildlife Refuge (WI) and then led in aerial migration to Chassahowitzka National Wildlife Refuge (FL). To date, their occurrence in Minnesota has been limited to a few spring vagrants and summer wanderers, and has been limited to the southern third of the state. They are not likely to be present in areas occupied by DCCOs.

B. Explanation of actions to be implemented to reduce adverse effects: Several factors will reduce the likelihood of adverse effects on listed species. Action agencies must abide by the following terms and conditions to undertake activities under the PRDO, and if they do not, the Service may suspend the privilege of agencies to take action under the PRDO:

1) Specific provisions in the PRDO regulations (50 CFR 21.48 (d)(8)) must be followed to protect piping plovers and bald eagles. The discharge/use of firearms to kill or harass DCCOs, or the use of other DCCO harassment methods, is prohibited within 1,000 feet of nesting or migrating piping plovers and piping plover critical habitat, and within 750 feet of active bald eagle nests. Use of other DCCO control activities (egg oiling and destruction, cervical dislocation, CO_2 asphyxiation, and nest destruction) is prohibited within 500 feet of nesting or migrating piping plovers and piping plover critical habitat, and within 750 feet of active bald eagle nests.

2) Non-toxic shot must be used, thus lessening the likelihood of lead poisoning of non-target wildlife.

3) The incidental take of any listed species must be reported to the Service.

VII. Effect determination and response requested:

A. Listed species/designated critical habitat:

Determination

No effect/no adverse modifications __X__ Concurrence

Whooping crane (*Grus americana*) [XN]

May affect, but is not likely to adversely affect species/adversely modify critical habitat
__X__ Concurrence

Piping plover (*Charadrius melodus*) [E, T]

Bald eagle (*Haliaeetus leucocephalus*) [T]

May affect, and is likely to adversely affect species/adversely modify critical habitat
__X__ Concurrence

NONE

B. Proposed species/designated critical habitat:

Determination

No effect on proposed action/no adverse modifications of proposed critical habitat
__X__ Concurrence

NONE

Is likely to jeopardize proposed species/ adversely modify proposed critical habitat
__X__ Concurrence

NONE

C. Candidate species:

Determination

No effect X Concurrence

NONE

Is likely to jeopardize candidate species X Concurrence

NONE

Stephen D. Wilds
Signature

4/14/05
Date

VIII. Reviewing Ecological Services Field Office evaluation:

A. Concurrence X Nonconcurrence

B. Formal consultation required ____

C. Informal consultation required

D. Informal conference required

E. Remarks

Jan P. Hinnett
Signature

April 18, 2005
Date

Field Supervisor
Twin Cities Ecological Services Office