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November 9, 2004

**To:** Council Members

From: Peter Paquet, Manager Wildlife and Resident Fish

**Subject:** Avian Predation on Juvenile Salmonids

**Action** Concurrence with staff recommendations on strategies to address issues

concerning avian predation on juvenile salmon.

### **Background**

At last month's meeting in Missoula, the Council was briefed by staff on potential issues related to the reduction of predation on juvenile salmonids by several species of fish-eating birds (Attachment 1). The staff briefing identified several issues that could potentially have biological and fiscal impacts on regional fish and wildlife mitigation efforts focused on salmon and steelhead recovery and posed several questions with regard to the Council's involvement in these issues. Following a discussion of the issues by the Council, staff was asked to develop recommendations on possible strategies for Council involvement in these issues, with particular focus on three specific areas: 1) Management of Caspian terns in the estuary; 2) The development of a regional strategy for avian predator management; and 3) Potential budget impacts from increased emphasis on predator control as a mitigation strategy.

#### **Discussion**

➤ Caspian Tern EIS – The comment period for the Draft Caspian Tern Environmental Impact Statement ended on September 20<sup>th</sup> and the USFWS and COE anticipate having Record of Decision signed by February, 2005. The Draft EIS, prepared in cooperation with the U.S. Army Corps of Engineers and the National Marine Fisheries Service (NOAA Fisheries), is part of a 2002 settlement agreement between the Service and the Corps and the National Audubon Society, Defenders of Wildlife, Seattle Audubon

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Society and the American Bird Conservancy. As this process is nearly complete, it appears that the best course of action would be to wait for the decision on the preferred alternative before deciding on how the Council might want to engage in this process. Depending on the outcome of the EIS process, there may be some issues remaining, particularly with regard to state concerns on potential relocation sites, but these could be addressed following the decision on a preferred alternative. Staff will continue to consult with the parties, and will provide regular briefings to the Council on the issue.

➤ Regional Approach to Avian Juvenile Fish Predation – The problem of avian predation on juvenile salmonids is not limited to the Lower River and estuary. There are a variety of avian species that are predatory on juvenile salmon and they occur throughout their range. The vast majority of these birds are native to the Columbia and Snake rivers and they are natural predators on salmonids. However, because of human activities which have both altered existing reproductive habitat and created increased habitat for many of these species, they have greatly expanded both there geographic and population size. Although Caspian terns and Double-crested cormorants have received the most attention to date, recent studies in the Mid-Columbia indicate that both gulls and mergansers may be of significant concern whereas, terns and cormorants may have no significant impact on juvenile fish. Additionally, we are faced with increasing populations of Double-crested cormorants in the estuary, which are diminishing the effectiveness of the tern relocation program.

At the Missoula meeting staff asked what role, if any, the Council should take in promoting a regional strategy to address this issue. Since that time, staff has had discussions with a number of the parties focusing on this issue. As part of their ESA implementation responsibilities, Bonneville is in the process of developing avian predation strategies and proposed actions for the Draft Biological Opinion. They have indicated that contain a mix of "on the ground" activities and research on a number of aspects of avian predation. This document will be available by the end of this month.

The BiOp implementation strategy being developed by Bonneville will likely provide a framework for the development of a regional strategy for research on and management of avian predators in the Columbia River. Currently this document is in a predeciscional stage and is not available for distribution. Given this circumstance, staff would recommend that the Council revisit this issue after reviewing the proposed Bonneville process. Staff will continue to consult with the federal agencies, states, tribes and other interested parties and inform the Council on the issues.

➤ **Budget Issues** – Increased emphasis on predator control in the recent draft Biological Opinion is likely to cause a shift in budget priorities for the federal implementing agencies. The increasing numbers of Double-crested cormorants will mean that additional research and population analysis will be required, as well as the initiation and competition of an EIS for population redistribution and implementation of the preferred

alternative. As we learn more about the impact of other species, similar efforts for those species may need to be initiated.

Discussion with Bonneville has indicated that there should be no impact on the FY 2005 Fish and Wildlife Program budget. However, there are likely to be increased costs for avian predation work in FY 2006 and beyond. Because many of the activities that are the cause for the increase in avian predation on juvenile salmonids are not directly associated with the hydroelectric system there are questions concerning which costs should be included in the Bonneville fish and wildlife budget. In the past, Bonneville has provided partial funding for these activities, with the remainder of the funding coming from the Corps of Engineers and other Federal agencies. The Corps and the other agencies will be seeking further funding from Congress to continue these activities over the next several years.

The Federal agencies are likely to seek the Council's support in presenting their budgets to Congress. Because of this we would recommend that the Council direct the staff to work with the regional entities on these issues and to develop recommendations to the Council for an appropriate course of action. Issues that specifically need to be addressed include: Possible effects on the Fish and Wildlife Program budget; Regional cost savings (e.g. Programmatic EIS); Support for federal agency budgets; and the Cost effectiveness of these activities in reducing juvenile salmonid mortality.

## Attachment 1

**Judi Danielson Chair** Idaho

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> **Ed Bartlett** Montana

John Hines Montana

October 4, 2004

**To:** Fish and Wildlife Committee

From: Peter Paquet

**Subject:** Avian Predation Management Issues

### Action

No action required. This item is for discussion only.

# **Background**

At its meeting in Seattle last month, the Council heard several reports on the predation of juvenile salmonids by several species of fish-eating birds. A report by the Corps of Engineers focused primarily on the lower river and estuary and the management strategies for Caspian Terns, which is the current subject of Environmental Impact Statement which describes potential strategies for reducing tern predation on juvenile salmonids. Additionally, they discussed the increasing populations of Double-crested cormorants and the corresponding increased consumption of juvenile salmonids (See, http://migratorybirds.fws.gov/CATE.htm) for a detailed summary of the issues). Dr. Julia Parrish, of the University of Washington presented findings from the mid and upper Columbia indicating that while terns and cormorants were not a significant problem in that area, other species, common mergansers and several species of gulls were (See material from Seattle Council meeting). The referenced material provides summaries of the problem, as well as a discussion of the proposed solutions. Additionally, as reported at the

last meeting, the current draft Biological Opinion calls for the increased use of predator control to increase mainstem survival of juvenile fish.

#### **Discussion**

At the Seattle meeting several issues were raised by both Council members and the presenters that have potential short and long-term policy implications for the Council's Fish and Wildlife Program. Staff has identified several of these potential issues that it believes merit further discussion.

- ➤ Caspian Tern EIS The comment period for the Draft Caspian Tern Environmental Impact Statement ended on September 20<sup>th</sup> and the USFWS hopes to have the final document completed by January, 2005. However, the preferred alternative relies on a strategy which calls for relocating birds to other geographic areas in Oregon, Washington and California, including areas outside the historical breeding range. Currently, the management agencies in those states have indicated that they would only be willing to accept birds in areas in which they historically occurred. This could lead to a situation where it could be impossible to implement the EIS preferred alternative. When they made their presentation in Seattle, the Corps contingent specifically asked for the Council's help in resolving this issue. Is this a role that the Council wishes to take on? What are the implications for managing Caspian Terns in FY 2005? Are there short-term alternatives?
- ➤ Regional Approach to Avian Juvenile Fish Predation The problem of avian predation on juvenile salmonids is not limited to the Lower River and estuary. There are a variety of avian species that are predatory on juvenile salmon and they occur throughout their range. The vast majority of these birds are native to the Columbia and Snake rivers and they are natural predators salmonids. However, because of human activities which have both altered existing reproductive habitat and created increased habitat for many of these species, they have greatly expanded both there geographic and population size. Although Caspian terns and Double-crested cormorants have received the most attention to date, recent studies in the Mid-Columbia indicate that both gulls and mergansers may be of significant concern whereas, terns and cormorants may have no significant impact on juvenile fish. Additionally, we are faced with increasing populations of Double-crested cormorants in the estuary, which are diminishing the effectiveness of the tern relocation program.

While we are faced with a number of these problems in varying locations throughout the basin there is currently no regional strategy for addressing the issue of avian predation. Dr. Parrish, in her presentation to the Council suggested that such an approach could provide a more integrated approach to the problem. What role, if any, should the Council take in promoting a regional strategy?

➤ **Budget Issues** – All of the above, as well as several other eventualities could have short or long-term impacts for the Fish and Wildlife Program budget. Increased emphasis on

predator control in the recent draft Biological Opinion is likely to cause a shift in budget priorities for the federal implementing agencies. The increasing numbers of Double-crested cormorants will mean that additional research and population analysis will be required, as well as the initiation and competition of an EIS for population redistribution and implementation of the preferred alternative. As we learn more about the impact of other species, similar efforts for those species may need to be initiated. This raises questions such as: Who should pay for these initiatives? What are the hydrosystem responsibilities? Would a regional strategy be more cost effective?