

Pacific Seabird Group



DEDICATED TO THE STUDY AND CONSERVATION OF PACIFIC SEABIRDS AND THEIR ENVIRONMENT

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October 28, 1999

Mr. Todd Maddock, Chairman
Northwest Power Planning Council
851 S.W. Sixth Avenue, Suite 1100
Portland, Oregon 97204-1348

Re: Caspian Terns

Dear Mr. Maddock:

The Pacific Seabird Group (PSG) is concerned about the health of the Caspian Tern population in the Pacific Northwest. We understand that the Northwest Power Planning Council is considering options to attempt to enhance recovery of wild salmonids in the Columbia River. One option deals with limiting Caspian Tern populations because they feed on certain populations ("evolutionary significant units," or ESUs) of coho, chinook and steelhead smolts that the federal government has listed as endangered under the Endangered Species Act (ESA). This option is based upon a misguided belief that Caspian Terns are culprits in the demise of these populations. PSG opposes agency actions that jeopardize the health of Caspian Terns, especially federal efforts to make 30% of the Caspian Tern population in this nation a scapegoat for agency failures to manage fisheries or to mitigate effectively the damages to migratory fishes caused by dredging and the construction of enormous dams in the Columbia River system.

I. Pacific Seabird Group

PSG is an international organization that was founded in 1972 to promote knowledge, study and conservation of Pacific seabirds. PSG draws its professional biologist membership from the entire Pacific Basin, including Canada, Mexico, Japan, China, Australia, New Zealand, and Russia. Among PSG's members are biologists who have research interests in Pacific seabirds,

state and federal officials who manage seabird populations and refuges, and individuals with interests in seabird conservation. PSG is geared toward using science to manage seabird populations and issues, and has been especially active with regard to seabird-fishery issues, oil spill restoration plans, marine sanctuaries, and protection of endangered or threatened seabird species. Over the years we have advised and worked cooperatively with government agencies to further these interests.

PSG has been involved in the Caspian Tern issue in the Columbia River estuary for several years, attending a few working group meetings and preparing comments on various alternatives. Our goals have been to:

- Avoid any steps that would render the Caspian Tern a candidate for the ESA list (including emergency listing under ESA § 1533(b)(7)), perhaps as a Caspian Tern ESU); and
- Encourage restoration of former Caspian Tern nesting habitat in the Pacific Northwest.

Our second goal, obviously, is related to our first goal.

II. Caspian Terns in North America

The Caspian Tern occurs in the temperate zone worldwide, but in most areas it is very uncommon. Everywhere its populations are disjunct. In the United States the species is included by many states on lists of "species of special concern." The species has lost much of its original breeding habitat in North America to human encroachment and has been "saved" in recent decades by man-made dikes, levees and dredged-material islands. Only in two parts of North America is it "common" as a breeding species: the Columbia River and some lakes in Manitoba. It is a colonial breeding species.

An unwary assessment of the 10,000 or so pairs that breed on islands in the lower Columbia River and the 8,000 or so on islands on lakes in Manitoba might lead to a conclusion that this species is secure. It is not — its populations have recovered only because of active management. Almost all projects that deal with waterways must comply with the National Environmental Policy Act or analogous state statutes. These statutes have required mitigation of Caspian Tern habitat, which has been a success. Nevertheless it is listed as "vulnerable" in British Columbia, "threatened" in Michigan, "endangered" in Wisconsin, and a "species of special concern" in California, Utah, Wyoming, Virginia, Louisiana, and Florida. In most states it does not occur, so is not listed (i.e., it occurs mainly along coasts and where there are large bodies of water with islands for nesting).

Actions to "manage" the Caspian Tern population in the Columbia River system must be implemented with extreme care. The reason is simple: **We don't want another species added to the Federal ESA List.** The North American breeding population of this species is around 34,000 (33,000-35,000) pairs as of the 1990s. This is not a large population by any means.

(Only 20 years ago, before various environmental statutes came into play, its North American population was about 9,500 pairs.) The current Columbia River population comprises 30% of the North American total. The West Coast population, with the next closest concentrations being in Utah and Manitoba, totals about 13,000 pairs; 72% of this number breeds in the Columbia River estuary. Without the Columbia River population, the West Coast population (3,500 pairs) would be similar to the federally endangered California Brown Pelican and the federally threatened Marbled Murrelet and Snowy Plover. The latter two species are jeopardized by the loss of coastal nesting habitat. Justification for listing the Caspian Tern, if the Columbia River population were lost, would be consistent with these two species. The Caspian Tern has "always" nested in the Pacific Northwest, but uneducated agency decisions forced it out of several areas. Now, in this region, the species has only the habitat provided by dredged-material islands in the Columbia River because much of its natural habitat has disappeared.

The Caspian Tern is a natural inhabitant of the Columbia River system, and did not cause the salmon and steelhead to disappear. Changes in its distribution are the normal ebb and flow of ranges as weather patterns shift, as exemplified by the "Mini Ice Age" that lasted from about 1500 to the late 19th century.¹ Removing Caspian Terns from the system, while satisfying some emotional and political agendas, will not recover the endangered salmonid stocks. A multitude of factors has far more impact, including the "take" by other predators in the ocean and the estuary, natural fluctuations in the quality of salmon feeding habitat in the ocean, the take by dams and human fisheries, and the elimination or degradation of spawning and rearing habitat for salmonids throughout the Columbia Basin.

After careful consideration, enumerated previously in letters to the U.S. Fish and Wildlife Service and the U.S. Army Corps of Engineers, we are sure that the justification for annihilation of Caspian Terns in the Columbia River estuary does not stand up to scientific scrutiny. The terns now are more concentrated in the estuary than they were two decades ago, owing to 1) their general recovery from former persecution; and 2) the destruction of former nesting habitat elsewhere in the region. Currently, no Caspian Tern colonies exist in coastal Oregon and Washington, except at Rice Island and East Sand Island. Since 1957, the region has seen the loss of five colonies: three in Grays Harbor, one in Willapa Bay, and one in Puget Sound. Federal agencies forced terns to leave the colony at Everett Naval Station apparently without obtaining a Migratory Bird Treaty Act permit. The others have been lost due to encroachment of human activities on the sandy islands required by the species.

III. Legal Authorities and Legal Procedures

Any action that significantly alters the nesting habitat of the Pacific Northwest population of Caspian Terns would be a "major federal action significantly affecting the quality of the human environment" under § 102(2)(C) of the National Environmental Policy Act. This requires the preparation of an environmental impact statement. Under 40 C.F.R. Part 1502, it must provide a full and fair discussion of environmental impacts, discuss direct and indirect effects, and provide

¹ J.C. Varekamp, E. Thomas and O. Van de Plassche. 1992. Relative Sea-level rise and Climate change over the last 1500 years. *Terra Nova* 4: 293-304.

means to mitigate adverse environmental impacts. A discussion of reasonable alternatives "is the heart" of the environmental impact statement. 40 C.F.R. section 1502.14. Any "full and fair discussion" of alternatives cannot focus on Caspian Tern predation in isolation from dozens of other options including changing water flows in Columbia River dams (e.g., Bonneville 1,061 Mwe; Dalles 1,814 MWe; John Day 2,160 MWe; McNary 986 MWe), improvements in fish hatcheries and elimination of commercial and recreation fishing.

Neither the public nor the decision making agencies have seen a carefully reasoned scientific analysis of the impact of various perturbations on wild salmon smolts in the Columbia River system, including Caspian Terns. Salmonids produce a super abundance of ova and larval fish, which are inevitably drastically reduced during their life cycle. Thus the terns' consumption of smolts does not necessarily imply that the return of adult salmon has been affected. Indeed, spring chinook jack counts in 1999 were the highest since the mid-1970s, indicating that Caspian Terns did not significantly affect survivorship. Moreover, many NMFS scientists agree that ocean conditions and factors affecting ocean survivorship of salmon are far more important than tern foraging habits.² Unfortunately, many NMFS hatchery managers remain in the Dark Ages with regard to scientific management.

There needs to be much greater emphasis on bringing fish hatcheries into the modern era. The percentage of smolts that return to breed in Pacific Northwest drainages is less than 1%, in contrast to returns of 4-5% in Iceland and Alaska. Hatchery-raised smolts should not be fed by hand, which trains them to aggregate in the upper water column searching for food. They lack resilience and tend to be dazed when they are placed in the wild. Caspian Terns can be expected to take advantage of any readily available prey of suitable size, including temporary abundances of dazed and confused salmonid smolts in surface waters. Many of the smolts that Caspian Terns eat would never have survived. In addition, pulses of hatchery raised salmon deplete availability of prey for wild salmon, thus discrediting the view of hatchery managers that survival at sea is not density-dependent.³

Hatchery smolts cannot be considered to be ESUs or be protected under the ESA. The coho, chinook and steelhead are populations not species. They are common elsewhere, unlike Caspian Terns. This is a crucial distinction in weighing competing agency obligations as natural resource trustees regarding salmonids and seabirds. It is both unscientific and contrary to law to jeopardize healthy seabird colonies because fishery managers have not devoted the resources necessary to enable the salmonid populations to reproduce successfully in an alien environment that has destroyed their natural breeding strategies.

Finally, we believe that the 9th Circuit Court of Appeals (Oregon and Washington) would require any federal agency to secure Migratory Bird Treaty Act permits to intentionally destroy

² J. McGowan et al. 1998. Climate-Ocean Variability and Ecosystem Response in the Northeast Pacific, *Science* 281: 210-217.

³ Shimimoto et al. 1997. *Marine Ecology Progress Series* 150: 75-85.

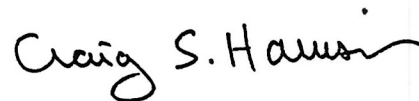
the largest Caspian Tern colony in the world. The 9th Circuit takes a very strict view of environmental statutes and is very unlikely to allow such actions to proceed without permits.

IV. Conclusion

If for emotional and political reasons, the number of Caspian Terns breeding in the Columbia River estuary must be reduced, then compensatory steps must be taken to restore former nesting habitat in Washington and Oregon. Caspian Tern nesting habitat cannot be destroyed until there is certainty that sufficient suitable habitat has been created elsewhere. Because Caspian Terns are long-lived (surviving to at least 26 years of age) and removal of breeding adults would undermine the survival of the population, lethal control is not an option.

We would be happy to assist you in the effort to move the terns elsewhere. Fortunately, this species' natural history strategy, geared to the shifting gravel bars of lakes and rivers (including, formerly, the Columbia), renders this restoration a proven option. It would be unprofessional to ignore the well-practiced, successful management techniques available for dealing with this issue. It would also be contrary to law to destroy Caspian Tern nesting habitat without first restoring or creating sufficient suitable habitat elsewhere.

Sincerely yours,



Craig S. Harrison

cc: Mr. Will Stelle, Regional Administrator
National Marine Fisheries Service

Ms. Anne Badgley, Regional Director
U.S. Fish and Wildlife Service

Brig. General Carl A. Strock, Commander
U.S. Army Corps of Engineers