

# Pacific Seabird Group



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

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February 16, 2000

Chief Engineer  
U.S. Army Corps of Engineers, Portland District  
Attn: CENWP-EC-C  
P.O. Box 2946  
Portland, Oregon 97208-2946

## **Re: Comments on Draft Environmental Assessment: Caspian Tern Relocation**

Dear Sir:

These are the Pacific Seabird Group's (PSG) comments on the U.S. Army Corps of Engineers (Corps) draft Environmental Assessment: Caspian Tern Relocation FY 2000 ("Draft EA"). PSG supports creating alternative nesting habitat for Caspian terns but objects strongly to activities that interfere with Caspian terns nesting at Rice Island, the largest Caspian tern colony in the world. The federal agencies have not complied with the National Environmental Policy Act and have failed to evaluate, as required by law, all of the reasonable and feasible alternatives to the proposed action.

The Draft EA is intentionally misleading, intellectually dishonest and does not represent an accurate scientific analysis. It fails to state that Caspian terns consume primarily hatchery-raised steelhead, only a small fraction of which (8%) are evolutionary significant units (ESUs). Thus, there is no basis for the proposed action, which makes Caspian terns a scapegoat for the endangered status of certain salmon stocks. The Draft EA does not contain information that PSG has requested from the Corps and the National Marine Fisheries Service (NMFS) in correspondence dated July 20, 1998, November 30, 1998, April 7, 1999 and October 28, 1999 (Enclosures 1-4). **PSG firmly opposes actions that jeopardize the health of the Caspian tern population of the west coast.**

## **I. The 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 members from the rim of the entire Pacific Basin, including the United States, 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 marine conservation. Over the years we have advised and worked cooperatively with government agencies to further these interests. PSG is especially active with regard to seabird-fishery conflicts and oil spill restoration.

## **II. PSG's Recommended Actions**

PSG asked FWS in April 1999 to draft and immediately implement a regional plan to restore colonies formerly occupied by Caspian terns in Washington and Oregon. This action would mitigate for the ongoing destruction of the colony at Rice Island, and the apparent failure of the Corps and NMFS to provide sufficient suitable alternative habitat.

Although the only current Caspian tern colonies in coastal Oregon and Washington are on Rice Island (8,100 pairs) and East Sand Island (1,400 pairs), this has not always been the case. Since 1957, the region has lost 5 colonies -- three in Grays Harbor, one in Willapa Bay, and one in Puget Sound (the East Sand Island colony was a sixth until it was partially restored in 1999). Federal agencies destroyed the nesting habitat of a colony of 1,500-3,000 pairs of terns at Everett Naval Station in 1995, apparently without a Migratory Bird Treaty Act permit. The other colonies have been lost due to encroachment of human activities on the sandy islands required by the species, or due to weather. Rice Island, an artificial island composed of dredged materials, appeared just in time in 1984. As Caspian tern habitat was destroyed elsewhere in this region, the Rice Island colony grew accordingly. This species now relies predominantly on dredged material islands throughout its North American range because much of its natural nesting habitat has disappeared. The San Francisco Bay area is a microcosm of this species' predicament on a larger scale -- only three major colonies are left, each on artificial substrates because no natural habitat remains (Dr. David Ainley, pers. comm.).

The Rice Island-East Sand Island population constitutes 30% of the North American population of this species, 38% of the U.S. population and 72% of the U.S. west coast population. Besides the birds in the Columbia River, other concentrations occur only in Manitoba and to a lesser degree among the Great Lakes. Loss or major reduction of the Columbia River population, without compensatory increases elsewhere in the region, would reduce the U.S. population to the size comparable to those of other bird populations listed as threatened under the Endangered Species Act (ESA). Without the Rice Island-East Sand Island colonies, the total number of Caspian terns breeding in California, Oregon and Washington would number only about 4,000 pairs. Such a population would be similar to several species that are listed under the ESA, including roseate terns, marbled murrelets (lower 48 population), California brown pelicans, Hawaiian petrels, snowy plovers and Newell's shearwaters. Furthermore, because the underlying

genetic structure of the west coast populations is unknown, destruction of a significant fraction of the population could destroy unique genetic information, reduce population heterozygosity to unhealthy levels, and/or result in a detrimental restructuring of the west coast metapopulation.

PSG recommends that the species be restored to former nesting sites in the Pacific Northwest before any additional impacts are approved relative to the lower Columbia River colonies. Restoration should benefit Caspian terns by improving region-wide reproductive success as success is poor in the current, crowded situation on the Columbia River. *It is essential that such restoration be taken in a rational manner, without abrupt disruptions at any of the current colonies as proposed in the Draft EA.* Some NMFS scientists agree that alternative habitat is needed at “Willapa Bay, Grays Harbor and Puget Sound, the Oregon coast, and almost anywhere else possible” before interfering with nesting at Rice Island as a breeding colony.<sup>1</sup> One NMFS scientist notes that “in-season management strategies to limit or restrict terns on East Sand Island in 2000 by acreage or numbers is a mistake.”<sup>2</sup>

### **III. National Environmental Policy Act and Justification for Proposed Action**

Like Secretary Babbitt, we hope to avoid "train wrecks" and wish to ensure that Pacific Northwest Caspian terns do not become endangered. We are concerned that the Corps and NMFS propose to so mismanage Caspian terns in Washington and Oregon that PSG may have to petition the U.S. Fish & Wildlife Service (FWS) to list this population or ESU under the emergency provisions of § 1533(b)(7) of the ESA. Emergency listing would be warranted if, as now seems possible, the Corps and NMFS cause or contribute to its widespread nesting failure.

#### **A. Legal Requirements Under the National Environmental Policy Act**

The National Environmental Policy Act's purpose is to:

insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA.

40 C.F.R. § 1500.1.

A "major federal action significantly affecting the quality of the human environment" requires an environmental impact statement. National Environmental Policy Act, § 102(2)(C). Under 40 C.F.R., Part 1502, an environmental impact statement must provide a full and fair discussion of environmental impacts, discuss direct and indirect effects, and provide means to mitigate adverse

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<sup>1</sup> Memorandum from Michael Schiewe, NMFS, to Edmundo Casillas, NMFS (November 22, 1999), Enclosure 5.

<sup>2</sup> Memorandum from Cynthia Tynan, NMFS, to Michael Schiewe, NMFS (October 27, 1999), Enclosure 6.

environmental impacts. A discussion of reasonable alternatives "is the heart" of environmental assessment. *Id.*, § 1502.14. Agencies may not rush to "commit resources prejudicing selection of alternatives." *Id.*, § 1502.2.

As we have stated repeatedly, any action that eliminates the largest nesting colony of Caspian terns in the world and 72% of the west coast population requires a full environmental impact statement. Despite this statutory requirement, the Corps has merely prepared an environmental assessment. Even if the Corps and NMFS could fulfill the requirements of the National Environmental Policy Act with an environmental assessment, the Draft EA is "so inadequate as to preclude meaningful analysis." *See* 40 C.F.R. § 1502.9(a). It constitutes fraud for a public disclosure document to contain such a biased and selective rendition of the relevant facts and to fail to discuss many reasonable alternatives. The Draft EA cannot possibly be considered a "full and fair discussion" of the need for the proposed action or the impacts on Caspian terns.

## **B. The Draft EA is Insufficient to Support the Proposed Action**

The documents that NMFS disclosed pursuant to a Freedom of Information Act request by the National Audubon Society provide information that is central to public decisionmaking but is omitted from the Draft EA. This situation warrants a judicial investigation into determining which NMFS officials decided to withhold this information from the Draft EA, and a consideration of whether they are sufficiently honest to remain in public employment.

The stated goal of the Corps and NMFS is "to reduce predation by piscivorous (fish-eating) birds (terns, cormorants, gulls) on juvenile salmonids . . ." Draft EA, p. 2. More specifically, the "rationale behind moving Caspian terns from the Columbia River estuary has been to reduce predation on ESA stocks of juvenile salmonids." Draft EA, p. 28. NMFS scientist Dr. Tynan observes "there is no scientific evidence to support the statement that piscivorous birds 'may be one of the factors that currently limit salmonid stock recovery.'"<sup>3</sup> She notes the "fact that the other river systems, that do not support Caspian tern colonies, have also experienced substantial declines in salmon runs questions the validity of targeting terns as a significant factor in the Columbia River."<sup>4</sup> She also laments that "management decisions thus far have been based almost exclusively on estimates of predation rates of Caspian terns on smolts, without incorporation of analyses that quantify the effect of predation relative to all other factors affecting salmon recovery."<sup>5</sup> Caspian "terns forage primarily on hatchery steelhead smolts, with a small percentage of their diet consisting of wild chinook or steelhead."<sup>6</sup> The Draft EA (Table 2) indicates that less than 8% of hatchery steelhead are listed as ESUs. Thus statements that the Caspian terns are eating 77% salmon smolts (e.g., Draft EA, p. 3) are intentionally misleading.

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<sup>3</sup> Cynthia Tynan, NMFS, Review of "Management of Avian Predation on Salmon and Steelhead Smolts in the Columbia River in 2000" (September 13, 1999), Enclosure 7.

<sup>4</sup> *Id.*

<sup>5</sup> Cynthia Tynan, NMFS, Final Recommendations for the 2000 Management Plan to Reduce Predation by Caspian terns on Juvenile Salmonids in the Columbia River Estuary, Enclosure 8.

<sup>6</sup> Memorandum by Gene Matthews, NMFS (September 13, 1999), Enclosure 9.



Because terns forage primarily on surface-oriented hatchery steelhead smolts, Dr. Tynan concludes that

it is very possible that terns benefit the recovery of wild salmon and the survivorship of smolts that swamp the spring out-migration. A management plan must consider the possibility that removal of Caspian terns from the estuary could actually have an adverse effect on the recovery of salmon. It is well known that simply increasing the number of smolts reaching the mouth of the estuary, e.g., by increasing the load of hatchery smolts placed in the river, does not produce higher returns.<sup>7</sup>

Thus the proposal could “actually increase the risk to salmon by producing greater predation pressure on smolts [with] 15,000-20,000 confused terns flying about the estuary and river . . . .”<sup>8</sup> Indeed, the terns that are not allowed to nest at Rice Island “may continue to congregate at Rice Island or move further up the river to forage on smolts and search for alternative habitat.”<sup>9</sup> The Draft EA also fails to mention that “1999 jack returns in the Columbia River are the highest reported in 10 years. These returns suggest that ocean conditions and factors affecting ocean survivorship play a much greater role in salmon survivorship than avian predation.”<sup>10</sup> Dr. Tynan notes that the jack return information

is GOOD news for salmon and should be distributed as widely as all the adverse public attention that was drawn to the Caspian terns. . . . I certainly don’t want to see NMFS sued because important new data was available and brought into the management process. NMFS is destroying the largest Caspian Tern colony in the world. They better have excellent data to support this drastic step in the name of salmon recovery.<sup>11</sup>

It is elementary that most fish species produce a super abundance of offspring per reproductive cycle, large numbers of which are inevitably drastically reduced during their early life history. The failure to include these facts strongly suggests that the agencies lack the courage to provide

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<sup>7</sup> Cynthia Tynan, NMFS, Review of “Management of Avian Predation on Salmon and Steelhead Smolts in the Columbia River in 2000,” p. 2 (September 13, 1999), Enclosure 7. See Shimiotto et al. 1997. Marine Ecology Progress Series 150: 75-85.

<sup>8</sup> Memorandum from Cynthia Tynan, NMFS, to Michael Schiewe, NMFS (October 19, 1999), Enclosure 10.

<sup>9</sup> Cynthia Tynan, NMFS, Final Recommendations for the 2000 Management Plan to Reduce Predation by Caspian terns on Juvenile Salmonids in the Columbia River Estuary, Enclosure 8.

<sup>10</sup> Letter from Cynthia Barry, FWS Acting Regional Director, to Craig S. Harrison, Vice Chair for Conservation, PSG (July 2, 1999), Enclosure 11.

<sup>11</sup> Memorandum from Cynthia Tynan, NMFS, to Edmundo Casillas (September 13, 1999) (emphasis in original), Enclosure 9.

complete and accurate information because it would reveal that their management approach is poorly thought out and does not reconcile with known ecological fact.

In July 20, 1998 and again in November 30, 1998 PSG requested data on the percentage of smolts that have returned each year to spawn in the Columbia River system for each of the past 20 years so we could determine whether the growth of the Caspian tern colony since the mid-1980's has affected smolt return.<sup>12</sup> The Draft EA contains no such data. Instead, it provides 30 years of salmon runs from Grays Harbor (Table 4), and demonstrates that the salmon runs were not affected by the growth of the Caspian tern colony there. We agree that terns did not affect salmon in Grays Harbor. The data that NMFS and the Corps are hiding would lead reasonable people to draw an identical conclusion regarding the effects of terns on Columbia River salmon.

The Draft EA relies on a 33 year old, 8-page report by Junge (1967) that was not published in any peer reviewed journal to support the EA's central assumption that "if more live smolts can be delivered to the ocean, more adults will return." Draft EA, p. 4. Current scientific literature clearly shows that there is no such relationship between hatchery smolt production and year class survival. Recent studies using the Pacific States Marine Fisheries Commission coded wire tag database indicate that there is a negative relationship.<sup>13</sup> Dr. David Ainley's comments on the 1998 Draft EA, which we incorporate by reference, note that Junge's assumptions are violated here. He noted that hatchery-raised salmonid smolts do not behave the same as wild salmon and unnaturally large pulses of hatchery smolts draw the attention of seabirds and other predators.

A "full and fair discussion" of alternatives must include a discussion of adverse impacts by removing Caspian terns from the estuary, and the fact that there is considerable scientific evidence that the terns are having no effect on salmon recovery. The alternatives analysis must also evaluate breaching the four dams on the Lower Snake River to aid salmon recovery. In December 1999, the FWS Regional Director stated that many of the salmon stocks cannot recover without breaching those dams. She stated "the bottom line biological conclusion is really a no-brainer. For fish and wildlife a free-flowing river is better than a dammed river." The Draft EA fails to discuss improvements in fish hatcheries to bring Pacific Northwest fishery managers out of the Dark Ages and into the 21st century.<sup>14</sup> Finally, the alternatives analysis should evaluate forcing agricultural diversions which kill millions of juvenile salmon to be screened. In 1996, fewer than 1,000 of the 55,000 water diversions in Oregon were screened,

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<sup>12</sup> The 1998 Draft EA included salmon returns from 1993-1996, which suggest that Caspian terns are no threat to salmon. The biggest salmonid declines between 1993 and 1996 were sockeye (down 65%) and spring chinook (down over 50%), which the terns rarely consume. See PSG Comments (November 30, 1998), p. 2, Enclosure 3.

<sup>13</sup> Coronado, C. 1995. Spatial and Temporal Factors Affecting Survival of Hatchery-Reared Chinook, Coho, and Steelhead in the Pacific Northwest, Ph.D. Dissertation, University of Washington. 235p. Coronado, C, & R. Hilborn. 1998. Spatial and temporal factors affecting survival in coho salmon (*Oncorhynchus kisutch*) in the Pacific Northwest. Canadian Journal of Fisheries and Aquatic Sciences 55:2067-2077.

<sup>14</sup> See PSG Comments in Enclosures 1, 2 and 4.

and 3,240 were listed as a high priority for screening. In 1994, 80% of pumping sites on the Oregon shore of the Columbia River failed to protect juvenile salmon.<sup>15</sup>

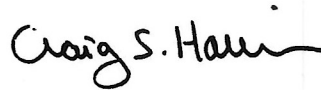
Dr. Tynan notes that “if we remove all terns now the high adult returns of 2001 and 2002 will be incorrectly ascribed to tern removal not improved ocean conditions and climactic impacts.”<sup>16</sup> The motivation of the NMFS fishery managers is clear. If they don’t remove the terns immediately, they may be revealed as impotent shamans if, as now anticipated, the salmon return in huge numbers without removing the terns.

#### **IV. Hatchery-Raised Salmonids Are Not Evolutionary Significant Units**

The premise of an ESU is that certain demes of fish contain unique genetic information, use unique combinations of environmental and geomorphological conditions, occur over a unique geographic range, and represent a significant ecological component of the natural ecosystem. Hatchery populations of salmonids cannot meet these benchmarks, and are not valid ESUs under the ESA. The Draft EA has not explained why hatchery smolts are valid ESUs, nor how they can or should be provided protection under the ESA other than *ipse dixit*.

In conclusion, PSG supports enhancing Caspian tern nesting habitat outside of the Columbia River, but opposes measures to preclude nesting by Caspian terns on Rice Island and a decision even to consider this seriously until Caspian terns are sustainably re-established at nesting sites elsewhere in the region.

Sincerely,



Craig S. Harrison  
Vice Chair for Conservation

Enclosures

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<sup>15</sup> Lichatowich, Jim. 1999. *Salmon Without Rivers*, p. 76 (Island Press).

<sup>16</sup> Memorandum from Cynthia Tynan, NMFS, to Edmundo Casillas (September 14, 1999), Enclosure 12.