

The Honorable Thomas White  
Secretary of the Army  
101 Army Pentagon  
Washington, D.C. 20310-0101

The Honorable Gale A. Norton  
Secretary of the Interior  
U.S. Department of the Interior  
1849 C Street N.W.  
Washington, D.C. 20240

**Re: Notice of Intent to Sue Under the Endangered Species Act—Missouri  
River Main Stem Reservoir System**

Dear Secretary White and Secretary Norton:

Pursuant to the Endangered Species Act (“ESA”) (16 U.S.C. § 1540(g)(1)(A), (B) and (C)), we file this sixty-day Notice of Intent to Sue under the citizen suit provisions of the ESA and under the Administrative Procedure Act<sup>1</sup> on behalf of our clients, the Coalition to Protect the Missouri River and its member associations; the Illinois Corn Growers Association; the Midwest Area River Coalition 2000 (MARC 2000) and its member associations; the MO-ARK Association (aka the Missouri-Arkansas River Basin Association) and its member associations; the National<sup>Corn</sup> Growers Association; Blaske Marine, Inc.; ConocoPhillips; Ergon Asphalt & Emulsions, Inc.; Magnolia Marine Transport Company; Memco Barge Line, Inc.; RiverBarge Excursion Lines, Inc. and the Terminal Grain Corporation (collectively “Coalition”). We provide notice of their intent to bring suit against the United States Department of Interior, the United States Fish & Wildlife Service (“FWS”), the United States Army Corps of Engineers (“Corps”), and the below-named State agencies all through their respective representatives for violations of the ESA including Sections 4, 7 and 9;<sup>2</sup> to seek injunctive relief; and to compel the Secretary of the Interior to prohibit the continued harm and taking of a listed species by stocking or other actions that further the propagation of non-native rainbow smelt and walleye and other non-native piscivorous fish species in the Missouri Main Stem System in Montana, North Dakota and South Dakota.

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<sup>1</sup> 5 U.S.C. §§ 704, 706.

<sup>2</sup> 16 U.S.C. §§ 1533, 1536, 1538.

This notice supplements, updates and incorporates by reference the notice of intent to sue filed by the Coalition to Protect the Missouri River dated August 20, 2001, and the notice filed by the MO-ARK Association dated May 23, 2002 under the citizen suit provisions of the ESA.<sup>3</sup>

### **I. Economic Impacts Not Properly Considered When Designating Critical Habitat for the Piping Plover**

The FWS must designate critical habitat on the basis of the “best scientific data available” after considering the “economic impact and any other relevant impact, of specifying any particular area as critical habitat.”<sup>4</sup> Congress has explicitly directed the Secretary to consider economic impacts when considering whether a particular area should be designated critical habitat.<sup>5</sup>

Furthermore, under regulations on critical habitat, the Secretary is required to conduct an impact analysis to “consider the reasonably probable economic and other impacts of the designation” on “significant activities that would either affect an area considered for designation as critical habitat or be likely to be affected by the designation” after an area is proposed for designation and before it is finalized.<sup>6</sup> The Secretary may exclude any portion of an area from critical habitat designation if the benefits of exclusion outweigh the benefits of inclusion unless “failure to designate such area as critical habitat will result in the extinction of the species concerned.”<sup>7</sup>

The baseline approach used by the FWS for its economic analysis for the designation of critical habitat for the Northern Great Plains Breeding Population of the Piping Plover is an improper application of the ESA and must be set aside. The final rule that designates critical habitat states:

All impacts from critical habitat designation are expected to be indirect, as critical habitat designation does not in itself directly result in any alteration of the environment. Further, the Economic Analysis concluded that critical habitat designation for the plover will lead to minimal economic benefits or impacts separate from the benefits or impacts associated with the listing of the species.<sup>8</sup>

The analysis conducted by the FWS is not what Congress intended. Congress clearly directs that the Secretary consider economic impacts at the time of critical habitat designation<sup>9</sup> and that “the FWS conduct a full analysis of all of the economic impacts of a critical habitat designation, regardless of whether those impacts are attributable co-extensively to other

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<sup>3</sup> 16 U.S.C. § 1540(g).

<sup>4</sup> 50 C.F.R. § 424.19.

<sup>5</sup> 16 U.S.C. / 1533(b)(2).

<sup>6</sup> *Id.*

<sup>7</sup> 50 C.F.R. § 424.19.

<sup>8</sup> 67 Fed. Reg. 57638, 57663 (September 11, 2002).

<sup>9</sup> 16 U.S.C. § 1533(b)(2).

causes.”<sup>10</sup> The baseline approach to economic utilized by the FWS is not in accord with the language or intent of the ESA.<sup>11</sup>

Under a proper application of the ESA, the Secretary should have considered the extensive economic impacts of the critical habitat designation related to the reach of the Missouri River below Gavins Point Dam, among others. Moreover, the Secretary should have excluded such an area from critical habitat since “the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat.”<sup>12</sup>

## II. Material Alteration or Elimination of Project Purpose

Reasonable and prudent alternatives in the Biological Opinion (“RPA”) must be capable of implementation (i) in a manner consistent with the intended purpose of the action, and (ii) consistent with the scope of the Federal agency’s legal authority and jurisdiction.<sup>13</sup> The low summer flows called for in the RPA<sup>14</sup> will materially interfere with and eliminate navigation from the Missouri River, an authorized project purpose. In addition, such low flows may seriously affect the ability of power plants to meet thermal discharge requirements and render water supply unavailable in some areas and of degraded quality in others. Furthermore, the enhanced spring rise would jeopardize flood control. Actions by the Corps that materially alter authorized project purposes, and elevate environmental considerations over the System’s primary purposes of irrigation, flood control, power supply, water supply and navigation would require prior congressional authorization<sup>15</sup> under the Flood Control Act of 1944<sup>16</sup> or the Rivers and Harbors Act of 1945.<sup>17</sup> The Corps also is bound by the priorities established in Section IX of the Master Manual, a rule.

With respect to low summer flows, the RPA provides that from Gavins Point Dam “[s]ummer flows shall be decreased annually stair-stepping down from base current flows to an interim target of 25 Kcfs by June 21, and held at 25 Kcfs until July 15. . . . On July 15, the flows shall be stair-stepped down to a flow of 21 Kcfs until August 15.” The RPA uses flow levels from Gavins Point rather than target flows at designated cities.

On the other hand, under the Master Manual a “minimum service” level for navigation on the Missouri River results from target discharges of 25,000 cfs at Sioux City

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<sup>10</sup> *New Mexico Cattle Growers Association v. United States Fish & Wildlife Service*, 248 F.3d 1277 (10<sup>th</sup> Cir. 2001); see also *Sierra Club v. United States Fish & Wildlife Service*, 245 F.3d 434 (5<sup>th</sup> Cir. 2001); *Catron County Board of Comm., New Mexico v. United States Fish & Wildlife Service*, 75 F.3d 1429 (10<sup>th</sup> Cir. 1996).

<sup>11</sup> *Id.*

<sup>12</sup> 16 U.S.C. § 1533(b).

<sup>13</sup> 50 C.F.R. § 402.02.

<sup>14</sup> Biological Opinion at 242.

<sup>15</sup> See *United States v. South Florida Water Management District*, 847 F. Supp. 1567 (S.D. Florida 1992); *Environmental Defense Fund v. Alexander*, 467 F. Supp. 885, 899-902, 908-10 (N.D. Miss.) (discussing the Corps’ discretionary authority to make post-authorization modifications to projects which do not materially alter authorized project purposes); *Creppel v. Army Corps of Engineers*, 670 F.2d 564, 572-73 (5<sup>th</sup> Cir. 1982); *United States ex rel. Chapman v. FPC*, 191 F.2d 796, 807 (4<sup>th</sup> Cir. 1951), *aff’d*, 345 U.S. 153, 73 S. Ct. 609, 97 L.Ed. 918 (1953); *Ryan v. Chicago B&Q R. Co.*, 59 F.2d 137, 142 (7<sup>th</sup> Cir. 1932).

<sup>16</sup> 33 U.S.C. § 701 *et seq.*

<sup>17</sup> P.L. 14, 79<sup>th</sup> Congress. Congress authorized a nine-foot navigation channel on the Missouri River downstream from Sioux City, Iowa.

and Omaha, 31,000 cfs at Nebraska City and 35,000 cfs at Kansas City.<sup>18</sup> Target flows at these locations determine navigation service and not flows from Gavins Point. Of course, full service levels sufficient to support a nine-foot draft call for higher target flows at the designated cities.

As the navigation industry experienced last summer, tributary inflows were not sufficient to support navigation with low steady flows from Gavins Point. From July 3, 2002 to approximately September 1, 2002 the Corps did not provide support for minimum service navigation on the Missouri River. The ill-effects of the summer shutdown are still being felt by navigation, terminals, industry and agriculture. Without question, the low flow alternative will materially interfere with and eliminate navigation from the Missouri River.

Therefore, the low flow and the enhanced spring rise elements of the RPA cannot stand and the Corps and the FWS must reinitiate formal consultation and develop an alternative action. If the Corps must modify its action “in a manner that causes an effect to the listed species or critical habitat,” then the Corps and the FWS also must reinitiate formal consultation.<sup>19</sup> On the other hand, if the agencies cannot identify a reasonable and prudent alternative that maintains the authorized project purposes, then the Corps should properly seek an exemption under the ESA.<sup>20</sup>

### III. Agencies Must Reinitiate Formal Consultation

#### A. New Critical Habitat Designated

Reinitiation of formal consultation is required by the FWS and the Corps when new critical habitat is designated that may be affected by the identified action.<sup>21</sup> In such a case, the FWS must issue a new Biological Opinion before the agency may implement its action.<sup>22</sup> Indeed, the FWS states in its rule designating such critical habitat that “[r]egulations at 50 C.F.R. 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where critical habitat is subsequently designated . . .”<sup>23</sup>

The FWS issued a “Biological Opinion on the Operation of the Missouri River Main Stem System Reservoir System”<sup>24</sup> in December 2000. Thereafter, the FWS issued a final determination of critical habitat for wintering piping plovers on July 10, 2001,<sup>25</sup> and it issued a Final Rule for the “Designation of Critical Habitat for the Northern Great Plains Breeding Population of the Piping Plover” on September 11, 2002.<sup>26</sup> According to the rule, the designation for the breeding population became effective on October 11, 2002. The

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<sup>18</sup> Master Manual, Section 9-17.

<sup>19</sup> 40 C.F.R. § 402.16(c).

<sup>20</sup> 40 C.F.R. Part 450.

<sup>21</sup> 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.16.

<sup>22</sup> *Id.*; *Mt. Graham Red Squirrel v. Madigan*, 954 F.2d 1441, 1451 (9<sup>th</sup> Cir. 1992); *Environmental Protection Information Center v. The Simpson Timber Company*, 255 F.3d 1073, 1075 (9<sup>th</sup> Cir. 2000).

<sup>23</sup> *Id.* at 57655.

<sup>24</sup> U.S. Fish & Wildlife Service Biological Opinion on the Operation of the Missouri River Main Stem Reservoir System, Operation and Maintenance of the Missouri River Bank Stabilization and Navigation Project, and the Operation of the Kansas River Reservoir System.

<sup>25</sup> 66 Fed. Reg. 36038.

<sup>26</sup> 67 Fed. Reg. 57638.

critical habitat designated includes Missouri River Units consisting of riverine and reservoir reaches of the Missouri River.<sup>27</sup> The piping plover is known to exist in such areas.

Therefore, since such critical habitat was designated for the piping plover after the Biological Opinion, the FWS and the Corps must reinitiate formal consultation, and the FWS must issue a new Biological Opinion before the Corps can proceed with any changes to the Missouri River Main Stem Reservoir System Reservoir Regulation Manual (“Master Manual”). Informal consultation is not a substitute for formal consultation,<sup>28</sup> and failure to reinitiate consultation in this regard is “without observance of procedure required by law.”<sup>29</sup>

## B. New Information

The FWS must reinitiate formal consultation to consider new information on the effects of Corps’ actions on the species of concern for the Missouri River: the piping plover and the interior least tern. Reinitiation of formal consultation under Section 7(a) of the ESA is required “if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered.”<sup>30</sup> The regulations define “effects of the action” as the project’s immediate impacts on the species (“direct effects”) and those impacts that are reasonably certain to occur in the future (“indirect effects”).<sup>31</sup>

### 1. Piping Plover

With respect to the piping plover, the 2001 International Piping Plover Census shows that plover numbers along the Missouri River have grown 460.4 percent in the last five years and 67.7 percent in the decade.<sup>32</sup> In 2001, there were 1048 piping plovers on the Missouri River, just one pair short of the recovery objective set forth in the 1994 draft, and never finalized, recovery plan for the Northern Great Plains Population of the Piping Plover. In the U.S. Northern Great Plains, piping plover numbers increased 25 percent in five years. (Environment News Service: AmeriScan: January 25, 2002.) What is more, during such period, the Main Stem System was generally operated in compliance with the existing Master Manual.

On the other hand, the Biological Opinion issued in December 2000 is based on “a substantial decline in population numbers” and model results that “indicated that the Great Plains plover population was undergoing a substantial decline.”<sup>33</sup> The very significant and substantial increase in the Missouri River plover population under the present Master Water Control Manual indicates that conclusions drawn in the Biological Opinion are erroneous and that the reasonable and prudent alternatives set forth therein are not reasonable or

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<sup>27</sup> *Id.* at 57650.

<sup>28</sup> 50 C.F.R. § 402.04(a)(5).

<sup>29</sup> 5 U.S.C. § 706(2)(D).

<sup>30</sup> 50 C.F.R. § 402.16(b).

<sup>31</sup> 50 C.F.R. § 404.02.

<sup>32</sup> Ferland, C. and Haig, S. 2001 International Piping Plover Census, U.S. Department of Interior and the U.S. Geological Survey in cooperation with the U.S. Fish & Wildlife Service and the U.S. Army Corps of Engineers at 224.

<sup>33</sup> Biological Opinion at 90, 91.

prudent. The FWS and the Corps violated Section 7 of the ESA by failing to reinstate consultation after new information revealed that a change from operations under the Master Manual (“effects of the action”) could harm the piping plover (“may affect the listed species”) in a manner or to an extent not previously considered<sup>34</sup> since the birds have done well under past operations.<sup>35</sup>

The Biological Opinion fails to explain how populations that have increased under the current Master Manual will be affected by changes to operations. The FWS must provide a scientific basis for its reasonable and prudent alternatives in light of this new information in a revised Biological Opinion.<sup>36</sup> Based on such data, the piping plover on the Missouri River is not in jeopardy under current operations and such a finding under the Biological Opinion is arbitrary and capricious.<sup>37</sup>

## 2. Interior Least Tern

Data on interior populations of the least tern on the Missouri River show that under the current Master Manual this segment of the population has met recovery goals. The FWS has failed to consider such data in the Biological Opinion in violation of the requirements of Section 7 of the ESA.

For reference, the Biological Opinion states:

Although recent counts of least terns (approximately 8,800 terns in 1995) exceed the overall recovery objective of 7,000 birds, the mean number of least terns in 12 of 19 local areas designated in the recovery plan (USFWS 1990b) do not reach corresponding objectives (Kirsch and Sidle 1999) and thus, do not meet recovery objectives for downlisting.

Overall population trends from 1986 to 1995 are positive. However, this positive trend is primarily due to increases in numbers of least terns on the lower Mississippi River (Kirsch and Sidle 1999). Annual change for the entire population was approximately 9 percent. However, when data from the lower Mississippi River was excluded, the annual change was 2.4 percent (Kirsch and Sidle 1999). At the scale of drainage basins, trends were positive for the Lower Mississippi River (13 percent), Platte River (2.6 percent) and the Missouri River (1.8 percent). However, only the trend for the Lower Mississippi River was significant (Kirsch and Sidle 1999).<sup>38</sup>

The Recovery Plan for the interior population of the least tern<sup>39</sup> provides the following recovery criteria for a recovery objective of delisting:

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<sup>34</sup> 50 C.F.R. § 402.16(b).

<sup>35</sup> *Sierra Club v. Marsh*, 816 F.2d 1376, 1388 (9<sup>th</sup> Cir. 1987).

<sup>36</sup> *Southwest Center for Biological Diversity v. Babbitt*, 2000 WL 33907602 (D. Ariz.).

<sup>37</sup> 5 U.S.C. § 706(2)(A); 50 C.F.R. § 402.02; *Idaho Department of Fish & Game v. National Marine Fisheries Service*, 850 F. Supp 886 (D. Or. 1994).

<sup>38</sup> Biological Opinion at 81 and 82.

<sup>39</sup> Recovery Plan for the Interior Population of the Least Tern, *Sterna Antillarum*, U.S. Fish & Wildlife Service (1990).

This recovery plan outlines recovery strategies to increase the interior population of the least tern to approximately 7,000 birds throughout its range. . . .

**Recovery Criteria:**

\* \* \*

1. Adult birds in the Missouri River system [Missouri River Basin] will increase to 2,100 and remain stable for 10 years. . . .<sup>40</sup>

Under Section 2 of the Recovery Plan, Recovery Objective, the FWS states:

I. Missouri River System

\* \* \*

- C. The breeding pairs will be maintained in the following distribution for 10 years . . .

Missouri River—400 adults<sup>41</sup>

Data from the Corps of Engineers compiled from actual field surveys shows that the number of adult least terns on the Missouri River has exceeded 400 in each and every year since sometime in 1986 and currently numbers over 700.<sup>42</sup> These populations exceed the stated recovery criteria. In the opinion of the FWS, the other criterion, maintaining a consistent fledge ratio, is not necessary or even possible: “Given the population analysis by Kirsch and Sidle (1999) and Smith and Renken (1993), maintaining an annual fledgling success of 0.70/pair on the Missouri River (suggested by USFWS 1990b [1990 Biological Opinion]) may not be necessary, or even possible given the great variation of fledgling success among sites and years that is typical for this species (Kirsch 1992, Smith and Renken 1993). A multi-year average of 0.70/pair fledgling success may be appropriate for the Missouri River.”<sup>43</sup>

The FWS and the Corps must reinitiate formal consultation regarding this information and must withdraw and revise the Biological Opinion accordingly. What is more, due to its increased numbers, the interior least tern on the Missouri River is not in jeopardy under current operations and such a finding under the Biological Opinion is arbitrary and capricious.<sup>44</sup>

**IV. Past Consultation was Inadequate**

In the alternative, the FWS arbitrarily and capriciously discounted the available information on the interior populations of the least tern (above) and on the negative impact

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<sup>40</sup> *Id.* at (ii).

<sup>41</sup> *Id.* at 28.

<sup>42</sup> See attached chart, titled “Least Tern Adult & Juveniles Numbers on the Missouri River 1986—2002, source: U.S. Army Corps of Engineers.

<sup>43</sup> Biological Opinion at 147.

<sup>44</sup> 5 U.S.C. § 706(2)(A); 50 C.F.R. § 402.02; *Idaho Department of Fish & Game v. National Marine Fisheries Service*, 850 F. Supp 886 (D. Or. 1994).

of non-native fish (below). During consultation, the FWS and the Corps must “use the best scientific and commercial data available,”<sup>45</sup> and since the Corps requested formal consultation resulting in the Biological Opinion, it was required to submit the best scientific data available.<sup>46</sup> The failure of the FWS and the Corps to consult using “the best scientific and commercial data available” constitutes a procedural violation of the ESA<sup>47</sup> and is not in accordance with law under the standard set forth in the Administrative Procedure Act.<sup>48</sup> Therefore, the Biological Opinion must be withdrawn and revised to properly consider such information.

## V. No Basis to Augment Spring Flows

An agency action is arbitrary and capricious when there is no rational basis for it.<sup>49</sup> The Biological Opinion includes in its RPA an augmented spring flow from Gavins Point Dam an average of once every three years.<sup>50</sup> Yet, in the Biological Opinion the FWS states as follows:

To date no simulated “spring rise” has been attempted although from about the mouth of the Platte River in Nebraska to St. Louis, a spring rise due to flows from the large number of uncontrolled tributary streams usually occurs. A spring-summer rise usually occurs on the Yellowstone River in Montana due to the large uncontrolled area of that basin.<sup>51</sup>

Since a spring rise already is present in such large portions of the system and below Gavins Point Dam, the Secretary must articulate reasons for flow enhancement of the existing spring rise. The FWS has not done so. What is more, the FWS states that temperature rather than flow is the most likely cue for spawning:

Current research, however, indicates that pallid sturgeon spawning is directly linked to water temperature. As water temperature increases to 62°--65° F (16.7° C—18.3° C), pallid sturgeon initiate spawning activity (Steve Krentz, USFWS, pers. comm.).<sup>52</sup>

In conclusion, the flow enhancement under the RPA is arbitrary and capricious.<sup>53</sup>

## VI. Harm and Taking of Listed Fish Species

The stocking of non-native rainbow smelt and walleye and other non-native piscivorous fish (fish that eat other fish) in the reservoirs and riverine reaches of the Missouri River Main Stem System in Montana, North Dakota and South Dakota constitutes harm to and takings of the endangered pallid sturgeon and candidate species for listing. The

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<sup>45</sup> 16 U.S.C. § 1536(a)(2).

<sup>46</sup> 50 C.F.R. § 402.14.

<sup>47</sup> 16 U.S.C. § 1536(a)(2); *Greenpeace Foundation v. Mineta*, 122 F. Supp.2d. 1123, 1128 (D. Hawai'i 2000).

<sup>48</sup> 5 U.S.C. § 706(2)(A).

<sup>49</sup> 5 U.S.C. § 706(2)(A).

<sup>50</sup> Biological Opinion at 242.

<sup>51</sup> *Id.* at 47.

<sup>52</sup> Biological Opinion at 110.

<sup>53</sup> 5 U.S.C. § 706(2)(A).

Coalition intends to seek injunctive relief<sup>54</sup> preventing the Department of Interior, the FWS, the below-named State agencies and the Corps through their respective representatives from violating the ESA and to prevent harm and takings of such listed species; and further will seek to compel the Secretary of the Interior to prohibit the continued harm and taking of such listed species by stocking or other actions that further the propagation of non-native rainbow smelt and walleye and other non-native piscivorous fish species in the Missouri Main Stem System in Montana, North Dakota and South Dakota. Additional fish introductions and management practices favoring the spread and proliferation of introduced species has hastened native fish declines, and could result in more threatened or endangered listings.<sup>55</sup> “Thus, there is a point at which the project’s encouragement of the spread and/or growth of non-native fish will result in the usurpation of non-native populations over protected native populations.”<sup>56</sup>

### A. Introduction of Non-Native Fish into the Missouri Main Stem System

The States of Montana, North Dakota and South Dakota have had a long history of stocking non-native fish, including walleye and rainbow smelt, in the Missouri Main Stem Reservoirs. See [www.fwp.state.mt.us](http://www.fwp.state.mt.us) (click on Fishing, then on Fishing in Montana and on Fish Stocking Information); [www.state.nd.us/gnf/fishing/stockinglist.html](http://www.state.nd.us/gnf/fishing/stockinglist.html); [www.state.sd.us/gfp/fishing/Index.htm](http://www.state.sd.us/gfp/fishing/Index.htm).

The following account of the spread of rainbow smelt in the Missouri-Mississippi drainage after a point introduction illustrates the potential of the species as a colonist. Gravid female rainbow smelt were introduced into a Missouri River reservoir—Lake Sakakawea, North Dakota—from Lake Superior in the spring of 1971 by the North Dakota Game and Fish Department to serve as a forage base for sport fishes (Dyke 1989). A self-sustaining population of rainbow smelt established itself within a few years. Rainbow smelt appeared in Lake Oahe, South Dakota, the first reservoir downstream of lake Sakakawea, by 1974 and large numbers of the species are now present in both of these reservoirs (Mayden et al. 1987). . . . Rainbow smelt have been collected in the Missouri River upstream of lake Sakakawea as far as just below Fort Peck Dam and in the Yellowstone River, Montana, in 1979 (Gould 1981).<sup>57</sup>

### B. Evidence of Harm and Take

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<sup>54</sup> 16 U.S.C. § 1540(g)(1)(A); *Marbeled Murrelet*, 83 F.2d at 1064 (finding that where a “take” has occurred, an injunction is the appropriate remedy while the action agency reinitiates consultation); see also *Thomas v. Peterson*, 753 F.2d 754 (9<sup>th</sup> Cir. 1985).

<sup>55</sup> Tyus, Harold M. 2002. Decline of Native Missouri River Fishes: The Introduced Fish Problem. Center for Limnology, Cooperative Institute for Research in Environmental Sciences, University of Colorado at Boulder.

<sup>56</sup> See *Southwest Center for Biological Diversity v. Babbitt*, 2000 WL 33907602, at 12, 13 (D. Ariz.)

<sup>57</sup> Cited in Franzin, W. G., B. A. Barton, R. A. Remnant, D. B. Wain, S. Range Extension, Present and Potential Distribution, and Possible Effects of Rainbow Smelt in Hudson Bay Drainage Waters of Northwestern Ontario, Manitoba, and Minnesota. *North American Journal of Fisheries Management* 14:65—76.

The introduction of non-native fish and fish stocking programs of non-native fish have had devastating effects on native species. Introduced species were a factor in species decline for 70% of the 92 fish species listed under the ESA through 1991. *American Fisheries Society Symposium* 15:391-396, 1995. The U.S. Congressional Office of Technology Assessment (“OTA”) noted that biodiversity has declined both by the loss of native species and the addition of nonnative species (OTA, 1993). Every introduction of non-native species will result in impacts to native biota (Courtenay 1993)<sup>58</sup> including loss of diversity in biotic communities (Mills et. al. 1993).

The evidence is overwhelming that rainbow smelt, walleye and other non-native piscivorous species harm or take listed species including the endangered pallid sturgeon in the Missouri Main Stem System through predation, competition and the alteration of habitat. Evidence of the actual ingestion of a larval, year-of-young or other pallid sturgeon at any life stage by a non-native fish is not necessary to show harm.<sup>59</sup> In support of its notice, the Coalition submits the following.

With respect to rainbow smelt, “[u]ndesirable effects of exotic species, such as rainbow smelt [*Osmerus Mordax*], on indigenous fish faunas include reduction in growth, elimination of native species, and changes in the community structure of native waters” (Moyle et. al. 1986). Studies from other ecosystems clearly demonstrate a cause and effect relationship between the introduction of non-native rainbow smelt and the decline of native species. For example, lake whitefish recruitment declines after invasion of a lake by rainbow smelt. Loftus and Hulsman (1986) documented extensive predation on larval lake whitefish by post spawning rainbow smelt over a 7-week period in a small Ontario lake.

In addition, studies in the Great Lakes show the detrimental ecological and economic impacts of non-native rainbow smelt. Aquatic nuisance species (“ANS”) in the Great Lakes have both ecological and economic impacts. “ANS have the ability to out-compete native species for food and habitat, and in the most severe cases, to displace native species entirely . . . . The ANS that are currently the greatest threat to the integrity of the Lake Superior ecosystem include . . . rainbow smelt” (Courtenay 1993).

Moreover, rainbow smelt prey upon the larvae of native fish (Aquatic Nuisance Species, Lake Superior Lakewide Management Plan, April 2000, p. 10-4). There is much evidence of predation by rainbow smelt on pelagic eggs, embryos or larvae (Selgeby et. al. 1978). Predation on larvae and eggs of native fish by rainbow smelt is borne out by studies of Lake Erie. Furthermore, the invasion of rainbow smelt may have been the death knell for certain native species in Lake Erie due to smelt predation efficiency on larval fish (Cornelius 2000).

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<sup>58</sup> Courtenay, W. R. Jr. 1993. Biological pollution through fish introductions. Pages 35-61 in B. B. McKnight editor. *Biological pollution: the control and impact of invasive exotic species*. Indiana Academy of Science, Indianapolis.

<sup>59</sup> 16 U.S.C. § 1532(19); 50 C.F.R. § 222.102; *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, 515 U.S. 687, 696-700, 115 S. Ct. 2407, 132 L.Ed. 2d 597 (1995); *Cobo Salmon v. Pacific Lumber Company*, 61 F.Supp 2d 1001, 1012 (N.D. Cal. 1999); *Marbled Murrelet v. Babbitt*, 83 F.3d 1060, 1066 (9<sup>th</sup> Cir. 1996), cert denied *sub nom.*, *Pacific Lumber Co. v. Marbled Murrelet*, 519 U.S. 1108, 117 S.Ct. 942, 136 L.Ed 2d 831 (1997).

With respect to walleye, “[p]redation has likely increased over historic levels due to stockings of piscivorous fish into the reservoirs and remaining riverine sections [of the Missouri River].”<sup>60</sup> “Future introductions of nonnative fish and other organisms may threaten sturgeon chub and sicklefish chub through predation.”<sup>61</sup> “Pressures on both species likely resulted from the competition created by stocking large numbers of numerous species of nonnative fish into reservoirs that were created and the remaining riverine sections of historical habitat.”<sup>62</sup> “The Service believes that the reduced distribution of the two chubs is due in part to predation and competition from nonnative fish.”<sup>63</sup>

Walleye introductions also threaten the stocking program for pallid sturgeon.<sup>64</sup> For background, the pallid sturgeon is native to the Missouri River and its historic range includes the length of the Missouri River according to the FWS.<sup>65</sup> In the interest of saving the pallid sturgeon, a stocking program was developed. Stocked fingerlings and young-of-the-year pallid sturgeon, however, have little chance of survival in the face of predation by non-native piscivorous fish such as the walleye.

Females collected in June and July in the upper end of Lake Sharpe, a reservoir on the Missouri River in South Dakota, contained mature ova and presumably were ready to spawn. However, during 10 years of sampling for young-of-the-year fish in Lake Sharpe (Kallemeyn 1983) or in the 17 years since then, no evidence of successful reproduction has been found.<sup>66</sup>

Unfortunately, no evidence has been obtained that any of the upper Missouri River system populations are successfully reproducing because only large individuals are being reported (Keenlyne 1989, Duffy et al. 1996).<sup>67</sup>

Walleye introductions result in prey depletions, reduced salmonid populations, and large shifts in fish community composition (Colby and Hunter 1989). A report on the Seminol Reservoir in Wyoming is one of the more complete studies of changes in predator-prey interactions after walleye interlocation. (McMiller 1984). Simply stated, walleye devastate the native species and their environment. A study on the Abitibi River also supports that walleye harm or take pallid sturgeon on the Missouri River Main Stem System. “Young-of-the-year (“YOY”) sturgeon have been discovered in the gut contents of walleye in the lower Abitibi River (EAG 1980, C. Hendry pers. comm.). In another study, walleye stomach samples indicated that most of the 500,000 fingerling trout stocked annually in an area were eaten within a few weeks after planting (McMillan 1984). Indeed, the Recovery Plan for the pallid sturgeon states that “predation by sight-feeding predators, such as northern pike (*Esox lucius*), walleye (*Stizostedion vitreum*), and smallmouth bass (*micropterus*

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<sup>60</sup> 60 Fed. Reg. 3614 (January 18, 1995).

<sup>61</sup> *Id.*

<sup>62</sup> *Id.* at 3615.

<sup>63</sup> *Id.*

<sup>64</sup> The pallid sturgeon was listed as endangered on September 6, 1990 (55 Fed. Reg. 36641).

<sup>65</sup> Recovery Plan for the Pallid Sturgeon (*Scaphirhynchus albus*), prepared by the U.S. Fish & Wildlife Service (November 7, 1993), p. 3.

<sup>66</sup> *Id.* at 100.

<sup>67</sup> *Id.* at 105.

*dolomieu*), can be expected to significantly impact native species [such as the pallid sturgeon] not equipped by evolution with good eyesight.”<sup>68</sup>

If the pallid sturgeon is in fact in jeopardy under current operations, the FWS should set forth a separate reasonable and prudent alternative to prevent the taking of pallid sturgeon by predation, competition and alteration of habitat from the stocking or propagation of non-native fish. Given the magnitude of this problem, an alternative that addresses non-native fish alone should be sufficient for recovery of the pallid sturgeon. The FWS acknowledges non-native fish stocking but does not include any reasonable and prudent alternative or reasonable and prudent measure to prevent taking of the pallid sturgeon:

The introduction of additional fish species attracted large numbers of anglers to the lakes.<sup>69</sup>

The upper three reservoirs have been stocked with coldwater game and forage species to take advantage of the coldwater retained through the summer and fall in the deeper waters of the reservoirs. Fish in the lower three reservoirs and the warmer waters of the upper three reservoirs include native and non-native species that have adapted to the lake habitat along with forage fish. Coldwater fish are also raised in hatcheries and stocked in the reservoirs. The exception is at the Fort Peck project where lake trout are supported by some natural reproduction along the face of the dam. Most of the warmwater and coolwater species spawn in lake shallows or in tributary streams. Because natural spawning and rearing habitat is limited, especially in low-water years, some warmwater and coolwater fishes such as walleye are stocked.<sup>70</sup>

Moreover, the FWS acknowledges that non-native fish are flushed throughout the system but does not propose any alternative or reasonable and prudent measure to prevent predation, competition and alteration of habitat from the stocking or propagation of non-native fish:

The success of fish in the System and the lower river depends on habitat conditions. In the upper three reservoirs, low water levels during droughts limit coldwater fish habitat and shallow spawning and rearing habitat or warmwater and coolwater species. In the lower three reservoirs, high inflow and outflow reduce lake productivity and cause young fish to be flushed from the reservoirs.<sup>71</sup>

The System reservoirs are producing more sport fish than the river did before impoundment.<sup>72</sup>

The Biological Opinion contains reference to predation management for the tern and plover but none for the pallid sturgeon:

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<sup>68</sup> *Id.* at p. 12.

<sup>69</sup> Biological Opinion at 46.

<sup>70</sup> *Id.* at 47.

<sup>71</sup> *Id.*

<sup>72</sup> *Id.* at 47, 48.

In addition to incorporating flow regulation, reducing the impacts of predation, human disturbance, and degrading habitat conditions are also integral parts of the Corps management activities on the System. Predator aversion has included the use of nest enclosure cages, strobe lights, electric barrier fences, and in cooperation with animal damage control agents, removal of local problem predators.<sup>73</sup>

In addition, the FWS acknowledges that larval pallid sturgeon migrate downstream but does not provide an alternative or measure in the Biological Opinion to prevent non-native fish in the headwaters of the reservoirs from harming them:

In the wild, the adhesive eggs are released in deep channels or rapids and are left unattended (Gilbraith et al. 1988). The larvae of Acipenserids are generally pelagic, becoming buoyant or active immediately after hatching (Moyle and Cech 1982). Although the behavior of young pallid sturgeon is poorly understood, recent work by Kynard et al. (1988a) indicates that a downstream migration period for larval pallid sturgeon begins day-0 after hatching and continues up to day-13, with a decline after day-8. With this information it has been possible to use water velocities to roughly estimate that larval pallid sturgeon may drift in the water column for a distance of 40 to over 400 mi (64-643 km) (Steve Krentz, USFWS, per. comm.).

The upper ends of the reservoirs in the upper basin may be influencing the recruitment of larval sturgeon.<sup>74</sup>

As stated above, the tern and plover are not in jeopardy under operations pursuant the Master Manual. Nevertheless, the FWS has found that reservoir management practices such as rising pool levels in the reservoirs to support non-native fish spawns are directly adverse to the needs of the plovers and terns: “Productivity surveys have shown reservoir habitat significantly contribute to plover and tern recruitment, particularly during drought or low runoff years when reservoir elevations are lower and habitat is more abundant.”<sup>75</sup>

For all of the foregoing reasons and evidence, those receiving this notice must take action to prevent the continued harm and takings of listed species due to the propagation and stocking of such non-native fish species in the Missouri River Main Stem System. The Missouri River Main Stem System must not be operated in a fashion to support such non-native fish species at the expense of the pallid sturgeon and other listed and native species in violation of Section 7(a)(2) of the ESA. The Coalition will seek injunctive relief in this regard.

The FWS has entirely failed to consider the competition and predation from non-native fish stocking and practices that serve to propagate such non-native fish to the harm of the pallid sturgeon. An agency decision is arbitrary and capricious under the Administrative Procedure Act if the agency has entirely failed to consider an important aspect of the

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<sup>73</sup> Biological Opinion at 55.

<sup>74</sup> Biological Opinion at 113.

<sup>75</sup> Biological Opinion at 256.

problem.<sup>76</sup> The Coalition respectfully submits that a “head-in-the sand attitude” conflicts with the underlying philosophy of the ESA and cannot be condoned.<sup>77</sup> Moreover, the FWS cannot lawfully maintain that it is innocent of takings under Section 9 because it is not aware of any data that confirms that it is in violation of Section 9.<sup>78</sup>

## VII. Stocking “Hybrids”

Lastly, the FWS has wholly failed to consider the impact of stocking hybrids in the Missouri River System. Field notes and records generated by the Blind Pony State Fish Hatchery in Missouri show that it is very likely that hybrids were introduced into the system rather than the so-called pallid sturgeon. Even so, the hybridization theory has been called into question since there is no compelling evidence that the so-called pallid sturgeon is genetically distinct from the shovel nose sturgeon. “Hybridization” may be nothing more than breeding within the same species that includes slight morphological differences.

The release of over 7000 so-called pallid sturgeon (hybrids) into the Missouri River in 1994 by the Missouri Department of Conservation<sup>79</sup> may be the cause of the rise in “hybridization”: “[h]ybridization in the Lower Missouri and Middle Mississippi Rivers increased from 1 in 361 river sturgeons (0.27 percent) in the late 1970s to 1 in 145 river sturgeons (0.69 percent) in the late 1990s (Carlson et al. 1985, Grady et al. in prep.).”<sup>80</sup> The fish released in Missouri share the Lower Missouri and the Middle Mississippi:

Recapture information from pallid sturgeon fingerlings stocked in the Missouri River in Missouri documents pallid sturgeon movement between those rivers. Fourteen pallid sturgeon stocked in the Missouri River were recaptured in the Mississippi River below St. Louis following release (Graham 1999).<sup>81</sup>

Again, an agency decision is arbitrary and capricious under the Administrative Procedure Act if the agency has entirely failed to consider an important aspect of the problem:<sup>82</sup> the improper use and identification of brood stock in pallid sturgeon propagation efforts.

## VIII. Conclusion

The Biological Opinion is not in the best interest of the economy or the environment. Well-intentioned people involved with the process have failed to consider important facts and follow procedure. The new administration has an opportunity to create a win-win situation for the economy and the environment. If this opportunity is lost, the Coalition will resolve these matters in court.

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<sup>76</sup> *Lake Mohave Boat Owners Association v. National Park Service*, 138 F.3d 759, 763 (9<sup>th</sup> Cir. 1998); *Dioxin Organochlorine Center v. Clarke*, 57 F.3d 1517, 1525 (9<sup>th</sup> Cir. 1995).

<sup>77</sup> *Greenpeace Foundation v. Mineta*, 122 F.Supp 2d 1123, 1134 (D. Hawai’I 2000).

<sup>78</sup> *Id.*

<sup>79</sup> Biological Opinion at 105.

<sup>80</sup> Biological Opinion at 116.

<sup>81</sup> Biological Opinion at 221.

<sup>82</sup> *Lake Mohave Boat Owners Association*, 138 F.3d at 763; *Dioxin Organochlorine Center*, 57 F.3d at 1525 (9<sup>th</sup> Cir. 1995).

Respectfully submitted,

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Robert J. Vincze  
**Greenberg Traurig, LLP**  
1200 17<sup>th</sup> Street, Suite 2400  
Denver, Colorado 80202  
(303) 572-6522

and

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David S. Humphreys  
**Watson & Jernigan, P.A.**  
Suite 1502, Mirror Lake Plaza  
2829 Lakeland Drive  
Jackson, Mississippi 39225-3546  
(601) 939-8900

Randy Asbury, Executive Director  
Coalition to Protect the Missouri River  
Rt. 1, Box 47  
Higbee, Missouri 65257

cc: General David A. Fastabend, Commander  
NW Division, Portland, Oregon  
United States Army Corps of Engineers

Jeffrey Hagener, Director  
Montana Department of Fish, Wildlife & Parks

John Cooper, Secretary  
South Dakota, Department of Game, Fish & Parks

Dean Hildebrand, Director  
North Dakota Game & Fish Department

CERTIFICATE OF SERVICE

I hereby certify that this 16<sup>th</sup> day of December 2002, I faxed a true and correct copy of the above Notice at the numbers indicated below and placed a true and correct copy of the above Notice in the United States mail, postage prepaid via Certified Mail, Return Receipt Requested, to the following:

<p>The Honorable Gale A. Norton                  Secretary of the Interior                  U.S. Department of the Interior                  1849 C Street N.W.                  Washington, D.C. 20240                  Fax (202) 208-6956</p>	<p>The Honorable Thomas White                  Secretary of the Army                  101 Army Pentagon                  Washington, D.C. 20310-0101                  Fax: (703) 697-8036</p>
<p>Mr. Ralph Morgenweck                  Regional Director                  U.S. Fish &amp; Wildlife Service                  Denver Federal Center                  134 Union Blvd.                  Lakewood, CO 80228                  Fax (303) 236-8145</p>	<p>General David A. Fastabend,                  Commander, NW Division                  United States Army Corps of Engineers                  PO Box 2870                  Portland, Oregon 97208-2870                  Fax (503) 808-3706</p>
<p>Jeffrey Hagener, Director                  Montana Department of Fish, Wildlife &amp;                  Parks                  1420 East 6<sup>th</sup>                  Helena, MT 59620                  Fax (406) 444-4952</p>	<p>Steven A. Williams, Director                  U.S. Fish &amp; Wildlife Service                  1849 C Street, Room 3012                  Washington D.C. 20240                  Fax (202) 208-6965</p>
<p>John Cooper, Secretary                  South Dakota, Department of Game, Fish &amp;                  Parks                  523 East Capitol Avenue                  Pierre, SD 57501-3182                  Fax (605) 773-6245</p>	<p>Dean Hildebrand, Director                  North Dakota/Game &amp; Fish Department                  100 N. Bismarck Expressway                  Bismarck, ND 58501                  Fax (701) 328-6352</p>

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Robert J. Vincze