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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AH06

Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Kootenai River Population of the White Sturgeon

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate critical habitat pursuant to the Endangered Species Act of 1973, as amended (Act), for the Kootenai River population of the white sturgeon (Acipenser transmontanus). A total of 18 river kilometers (11.2 river miles) of the Kootenai River in Idaho is designated as critical habitat.

The Kootenai River population of white sturgeon is threatened by factors including low water yields, flood control operations, poor recruitment, loss of habitat, and possibly, contaminants (water quality impacts). For more detailed discussions of the ecology of the Kootenai River population, see the Recovery Plan for the Kootenai River population of white sturgeon, see the September 6, 1994, Federal Register notice listing this population as endangered (59 FR 45989), and the September 30, 1999, "Recovery Plan for the White Sturgeon (Acipenser transmontanus): Kootenai River Population" (U.S. Fish and Wildlife Service 1999).

DATES: This rule becomes effective on October 9, 2001.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Upper Columbia Fish and Wildlife Office, 11103 East Montgomery Drive, Spokane, Washington 99206.


SUPPLEMENTARY INFORMATION:

Background

The Kootenai River population of the white sturgeon (Acipenser transmontanus) is 1 of 18 land-locked populations of white sturgeon known to occur in western North America. The Kootenai River originates in Kootenay National Park in British Columbia, Canada, then flows south into Montana, northwest into Idaho, then north through the Kootenai Valley back into British Columbia, where it flows through Kootenay Lake and joins the Columbia River at Castlegar, British Columbia. Kootenai River white sturgeon occur in Idaho, Montana, and British Columbia, and are restricted to approximately 270 river kilometers (km) (168 river miles (mi)) of the Kootenai River extending from Kootenai Falls, Montana, located 50 river km (31 mi) below Libby Dam, Montana, downstream through Kootenay Lake to Corra Lynn Dam at the outflow from Kootenay Lake in British Columbia. Bonnington Falls, a natural barrier downstream of Kootenay Lake, has isolated the Kootenai River population of white sturgeon since the last glacial advance roughly 10,000 years ago (Apperson 1992). Approximately 45 percent of the species’ range, based on river kilometers, is located within British Columbia. Apperson and Anders (1991) found that at least 36 percent of the sturgeon tracked during 1989 overwintered in Kootenay Lake. They further believe that sturgeon do not currently occur upstream of Bonners Ferry, Idaho, which includes most of the Kootenai River watershed in the United States.

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In 1997, Paragamian et al. (1997) estimated that there may be 1,468 adult sturgeon remaining in the Kootenai River population, with a male-to-female ratio of 1.7:1, or about 539 females. With 7 percent of these females reproductively active in a given year (Apperson and Anders 1991), and an assumed average of 100,000 eggs per female, there may be as many as 3.8 million eggs released on average annually. To increase the probability of survival of fertilized eggs, the U.S. Army Corps of Engineers (COE) has provided various augmentation flows from Libby Dam. However, during the last 10 years of intensive monitoring, only one hatchling fry has been found, and no free-swimming larvae or young-of-the-year have been captured. To date, only 17 juvenile sturgeon have been captured that can be associated with the experimental augmentation flows between 1991 and 1997. Because of sampling gear limitations, the success of sturgeon recruitment during the 1998 and 1999 augmentation flows cannot be assessed at this time. Considering the extent of occupied habitat in the United States and Canada, we believe that we have not yet accounted for other naturally recruited sturgeon from these same year classes that are present in the system. However, because of the high incidence of recapture of marked juvenile sturgeon in this system, the number of additional juvenile sturgeon is believed to be small.

There is evidence that very high levels of mortality of sturgeon eggs and sac fry are occurring annually. While we anticipate high levels of mortality at early life stages of a highly fecund species such as the Kootenai River white sturgeon, during 10 years of intensive monitoring we have never captured a free-swimming larva or young-of-the-year sturgeon, and have captured a total of 17 juveniles. This suggests exceptionally high levels of mortality are occurring at the sites now being used for spawning, egg incubation, and yolk sac fry development.

White sturgeon are broadcast spawners that release adhesive eggs which then sink to the river bottom (Stockley 1981, Branson et al. 1984). In the lower Columbia River, most sturgeon eggs are sheltered by attaching
themselves and incubating on rocky substrate near the spawning site (Parsley et al. 1993). Rocky substrates also provide cover for yolk sac larvae before they become free-swimming. However, in the Kootenai River, most of the current sturgeon spawning sites are over sandy substrate, and most eggs are found drifting along the river bottom covered with fine sand particles (Paragamian et al. in press). Recently, U.S. Geological Survey (USGS) geologists have analyzed core samples from the river bed and identified a “buried gravel/cobble geomorphic reach” throughout the reach of river from Bonner’s Ferry downstream to the mouth of Deep Creek (Gary Barton, USGS, pers. comm. 2001). Purposes of this ongoing study are to determine the conditions that may have caused this gravel/cobble substrate to be buried, and when this may have occurred.

Through 10 years of monitoring, we have determined that 10 degrees Celsius (50 degrees Fahrenheit) is the optimum temperature for spawning for this species. When significant sturgeon recruitment last occurred in the Kootenai River (in the year 1974), and when preferred spawning temperatures were near 10 degrees Celsius, the following conditions were recorded: base flows of 40,000 cfs (1,120 cubic meters per second (cms)), peak flows of 55,000 cfs (1,540 cms), and a water surface elevation at Bonners Ferry of 1,765.5 ft (538.5 m) above sea level while at peak flows. We do not know the locations or the substrate composition of the spawning sites selected by adults under these 1974 conditions. The more extreme flow events common in the unregulated Kootenai River prior to impoundment may have caused gravel to be exposed within the spawning area. For example, the flood of record (1894) at Bonners Ferry, Idaho, was estimated to have been 157,000 cfs (4,396 cms), and peak flows in the range of 70,000 cfs (1,960 cms) were not unusual prior to construction of Libby Dam, which became fully operational in 1975. These flow, water elevation, and temperature conditions have not all been replicated at one time since 1974.

In the Kootenai River, spawning has not resulted in significant levels of recruitment, and it is unclear whether this is due to: (1) The current spawning site selection is a predominant behavioral response to changed river velocities and depths from the operations of Libby Dam, which may be causing the sturgeon to spawn primarily at new sites below the confluence with Deep Creek, about 3 river miles below Bonners Ferry, with unsuitable sandy riverbed substrates; or (2) the substrate at historic spawning sites has been altered by the operations of Libby Dam that have greatly reduced peak flood flows and associated stream energy. In turn, this may be causing rocky substrate, otherwise suitable for egg incubation and sac fry development, to be covered with sand. Since intensive monitoring began 10 years ago, there is evidence that some sturgeon in spawning condition enter the reach of river between Bonner’s Ferry and the mouth of Deep Creek each year, but few have remained to spawn there. Suitable water and sediment quality are necessary for viability of early life stages of Kootenai River white sturgeon, including both incubating eggs and yolk sac larvae, and normal breeding behavior. In 1992, Apperson documented elevated levels of copper in both Kootenai River sediments and sturgeon oocytes (the eggs before maturation), and found low levels of the polychlorinated biphenyl Arochlor 1260 in river water. Because offspring of wild sturgeon captured and spawned in the hatchery appeared to survive and develop normally on filtered hatchery water, the question regarding quality of the river habitat remains. Subsequent studies of biota and survival (egg and larvae) have continued the concern as to the role water and sediment quality is playing in the lack of recruitment to the sturgeon population. Although most sturgeon eggs released in the Kootenai River are not believed to live long enough to hatch into larvae and begin feeding, various constituent nutrients trapped in Lake Kootanaus, above Libby Dam, including nutrients, nitrogen, and phosphorus, may affect the food base of those larvae that do hatch. The operations of Libby Dam can affect water temperatures in the spawning reach, especially during intermediate and low water years. Water temperature may affect spawning behavior. Optimum spawning temperature is near 10 degrees Celsius, and sudden drops of 2 to 3 degrees Celsius cause males to become reproductively inactive. Water and sediment quality and the effects of contaminants on sturgeon recruitment remain an area of concern and uncertainty.

Researchers with the USGS are conducting a study of possible changes in riverbed substrate and water depths in the Kootenai River from Kootenay Lake, British Columbia, to above Bonners Ferry, Idaho, which may have resulted from the last 26 years of operations at Libby Dam. Further, there is an ongoing study involving the releases of large numbers (over 100,000) of four-day-old, hatchery-reared, yolk sac larvae over both sandy and rocky substrates in the Kootenai River, which is also intended to address uncertainties involving the sturgeon population’s riverbed substrate needs.

Previous Federal Action

Federal action on the Kootenai River population of white sturgeon began on November 21, 1991, when we included this population as a category 1 candidate species in the Notice of Animal Candidate Review (56 FR 58804), based on field studies conducted by the Idaho Department of Fish and Game. Category 1 candidate species are taxa for which the Service has on file enough substantial information on biological vulnerability and threats to propose them for endangered or threatened status. On June 11, 1992, the Service received a petition from the Idaho Conservation League, North Idaho Audubon, and the Boundary Backcountry to list the Kootenai River population of white sturgeon as threatened or endangered under the Act. The petition cited the lack of natural flows affecting juvenile recruitment as the primary threat to the continued existence of the wild sturgeon population. Pursuant to section 4(b)(A) of the Act, the Service determined that the petition presented substantial information indicating that the requested action may be warranted, and published this finding in the Federal Register on April 14, 1993 (58 FR 19401). A proposed rule to list the Kootenai River population of white sturgeon as endangered was published on July 7, 1993 (58 FR 36379), with a final rule following on September 6, 1994 (59 FR 45989).

In the September 6, 1994, final rule listing the Kootenai River population of white sturgeon as endangered (59 FR 45989), we stated that the designation of critical habitat was not determinable. As identified in the final listing determination, the primary threat to this species involves effects of the greatly altered natural hydrograph in the Kootenai River downstream of and beginning with the operations of Libby Dam in 1975. Adaptive management involving flow augmentation and monitoring during the last six years has indicated that this threat is most crucial during the first year of life, especially the first three weeks of life of the sturgeon (fertilized egg through free-swimming larvae). Biological factors relevant to the species’ early life stage habitat needs are discussed in the “Primary Constituent Elements” section of this final rule. Section 4(d)(3) of the Act and its implementing regulations (50 CFR
424.12) require that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is determined to be endangered or threatened. Our regulations (50 CFR 424.12(a)) state that designation of critical habitat is not determinable if information is not sufficiently well known to permit identification of an area as critical habitat. Our regulations (50 CFR 424.12(a)(1)) also state that designation of critical habitat is not prudent when one or both of the following situations exist: (1) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or (2) such designation of critical habitat would not be beneficial to the species.

At the time of listing, we found critical habitat not determinable because the information necessary to perform the required impacts analyses of such a designation was lacking. We believed there was insufficient biological information to accurately delineate the habitat essential to the species, and, in the absence of this delineation, the required analysis of impacts could not be completed accurately. In addition, specific areas of critical habitat could not be identified without additional information on the life history and habitat requirements of the sturgeon. Biological information needs then identified by the Service included information concerning specific river reaches or areas necessary for spawning, reproduction, and rearing of offspring; and water quality, temperature, and velocity required to meet the needs of various life history stages (e.g., spawning, early rearing, and juvenile migration).

We published a final Recovery Plan on September 30, 1999 (U.S. Fish and Wildlife Service 1999). The recovery strategy identified in this recovery plan emphasized the importance of reestablishing successful, natural spawning of Kootenai River white sturgeon, minimizing the loss of genetic variability, and successfully mitigating the biological and physical habitat changes caused by human development within the Kootenai River basin. On June 30, 1999, the Center for Biological Diversity filed a complaint on the Service’s failure to designate critical habitat for the Kootenai River population of white sturgeon. As part of a court decision of August 30, 2000, in Center for Biological Diversity v. Bruce Babbitt, Secretary of the Department of the Interior, and the United States Fish and Wildlife Service, C99–3202 SC, we entered into a court-approved settlement agreement to submit a proposed rule for designation of critical habitat for the Kootenai River population of white sturgeon to the Federal Register by December 15, 2000. The proposed rule for designation of critical habitat was published on December 21, 2000 (65 FR 80698). The public comment period on the proposed rule was open from December 21, 2000, until February 20, 2001. On April 26, 2001, we announced the availability of the draft economic analysis and reopened the public comment period (66 FR 20962). The second public comment period closed on May 29, 2001.

Critical Habitat

Critical habitat is defined in section 3(5)(A) of the Act as: (i) the specific areas within the geographic area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species; and (ii) specific areas outside the geographic area occupied by a species at the time it is listed, upon determination that such areas are essential for conservation of the species. The term “conservation” as defined in section 3(3) of the Act means “to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary” (i.e., the species is recovered and removed from the list of endangered and threatened species). Section 3 of the Act further states that, except where determined by the Secretary of the Interior, critical habitat shall not include the entire geographic area which can be occupied by threatened or endangered species. In addition, critical habitat shall not be designated in foreign countries (50 CFR 424.12 (b)). Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific and commercial information available, and to consider the economic and other relevant impacts of designating a particular area as critical habitat. We may exclude areas as critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of specifying such areas as critical habitat. However, we cannot exclude areas from critical habitat when the exclusion will result in the extinction of the species. In cases where a critical habitat designation, the habitat must first be “essential to the conservation of the species.” Critical habitat designations identify, to the extent known using the best scientific and commercial data available, habitat areas that provide essential life cycle needs of the species (i.e., areas on which are found the primary constituent elements, as defined at 50 CFR 424.12(b)).

When we designate critical habitat at the time of listing, as required under section 4 of the Act, or under short court-ordered deadlines, we may not have the information necessary to identify all areas which are essential for the conservation of the species. Nevertheless, we are required to designate those areas we know to be critical habitat, using the best information available to us. Within the geographic area of the species, we will designate only currently known essential areas. Essential areas should already have the features and habitat characteristics that are necessary to sustain the species. We will not speculate about what areas might be found to be essential if better information became available, or what areas may become essential over time. If the information available at the time of designation does not show that an area provides essential life cycle needs of the species, then the area should not be included in the critical habitat designation. Within the geographic area of the species, we will not designate areas that do not now have the primary constituent elements, as defined at 50 CFR 424.12(b), that provide essential life cycle needs of the species. Our regulations state that “The Secretary shall designate as critical habitat areas outside the geographic area presently occupied by the species only when a designation limited to its present range would be inadequate to ensure the conservation of the species.” (50 CFR 424.12(e)). Accordingly, we do not designate critical habitat in areas outside the geographic area occupied by the species unless the best scientific and commercial data demonstrate that the unoccupied areas are essential for the conservation needs of the species.

Our Policy on Information Standards Under the Endangered Species Act, published in the Federal Register on July 1, 1994 (59 FR 34271), provides criteria, establishes procedures, and provides guidance to ensure that our decisions represent the best scientific and commercial data available. It requires our biologists, to the extent consistent with the Act and with the use of the best scientific and commercial data available, to use primary and supplemental sources of information at the basis for recommendations to designate critical habitat. When determining
which areas are critical habitat, a primary source of information should be the listing package for the species. Additional information may be obtained from a recovery plan, articles in peer-reviewed journals, conservation plans developed by states and counties, scientific status surveys and studies, and biological assessments, unpublished materials, and expert opinion or personal knowledge.

Critical habitat provides non-regulatory benefits to the species by informing the public and private sectors of areas that are important for species recovery and where conservation actions would be most effective. Designation of critical habitat can help focus conservation activities for a listed species by identifying areas that contain the physical and biological features that are essential for conservation of that species, and can alert the public as well as land- and water-managing agencies to the importance of those areas. Critical habitat also identifies areas that may require special management considerations or protection, and may help provide protection to areas where significant threats to the species have been identified or help to avoid accidental damage to such areas.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we solicited independent expert opinions from four persons who are familiar with this species to peer-review the proposed critical habitat designation. Two of these experts provided us with a written response generally supporting the designation based on the best available information. They also provided additional information that we have incorporated into the rule.

Both reviewers suggested that with additional information there may be a need to modify or expand critical habitat in the future. One reviewer suggested expansion of critical habitat upstream to include gravel/cobble substrates that may be used for sturgeon spawning under exceptional runoff conditions in the future. Our detailed response to this suggestion is included in the “Summary of Comments and Recommendations” section of this rule.

Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations in 50 CFR 424.12, in determining which areas to designate as critical habitat, we must consider those physical and biological features (primary constituent elements) essential to the conservation of the species, and which may require special management considerations and protection. These physical and biological features include but are not limited to the following: space for individual and population growth, and for normal behavior; food, water, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing of offspring; and, habitats that are protected from disturbance or are representative of the historical geographical and ecological distributions of a species.

The important habitat features that provide for breeding and rearing of offspring through the free-swimming larval stage include: water temperatures, depths, and flows sufficient to trigger sturgeon breeding, and water volumes and substrates sufficient to provide cover and shelter to incubating eggs and yolk sac larvae.

We have determined the primary constituent elements of critical habitat for the Kootenai River population of white sturgeon from studies of their habitats, life history, and population biology described and referenced above. Kootenai River flows may affect the sturgeon in two ways—flows may affect normal breeding behavior, including site selection, or alter the riverbed substrate, which may affect survival of eggs and cover for yolk sac larvae. Flows may also affect the efficiency of predators to locate eggs and sac fry larvae. The four primary constituent elements of Kootenai River sturgeon critical habitat are:

1. A flow regime that creates a hydrologic profile characterized by flow magnitude, timing, and velocity, and water depth and quality (including temperatures) necessary for normal behavior involving breeding site selection, breeding and fertilization, and cover for egg incubation and yolk sac fry development.

2. A flow regime that creates a hydrologic profile characterized by water of sufficient duration and magnitude to restore or maintain riverbed substrate necessary for attachment and shelter of incubating eggs and cover for yolk sac fry in inter-gravel spaces.

3. A flow regime that creates a hydrologic profile characterized by flow magnitude, time, velocity, depth, and duration necessary for the normal behavior of adult and juvenile sturgeon.

4. Water and sediment quality necessary for normal behavior, including breeding behavior, and viability of all life stages of the Kootenai River white sturgeon, including incubating eggs and yolk sac larvae.

The area we are designating as critical habitat for the Kootenai River population of white sturgeon provides the above constituent elements and requires special management considerations or protection to ensure their contribution to the species’ conservation.

Critical Habitat Designation

Based on the best available information, we designate the following area as critical habitat for the Kootenai River population of white sturgeon: that portion of the Kootenai River within Boundary County, Idaho, from river kilometer 228 (about river mile 141.4, below Shorty’s Island) to river kilometer 246 (about river mile 152.6, above the Highway 95 Bridge at Bonners Ferry, Idaho). The lateral extent of critical habitat is up to the ordinary high-water lines (as defined by the COE in 33 CFR 329.11) on each bank of the Kootenai River within this 18-kilometer (11.2-mile) reach.

Land Ownership

The reach of the Kootenai River designated as critical habitat lies within the ordinary high-water lines as defined for regulatory purposes (33 CFR 329.11). Upon statehood in 1890, the State of Idaho claimed ownership of the bed of the Kootenai River and its banks up to the ordinary high-water lines. Numerous private-, public-, and tribally-owned parcels abut these State-owned riverbed/banks, including lands managed by the Service at the Kootenai National Wildlife Refuge, and trust lands managed by the Kootenai Tribe of Idaho.

Based upon early U.S. Forest Service (USFS) maps from 1916, USGS maps from 1928, and the confining effects of the private levees completed by the COE in 1961, it appears that within this reach of the Kootenai River the ordinary high-water lines originally delineating State lands are essentially unchanged. Because of the scales of the available maps, it is possible that minor river channel changes have occurred since statehood, and that some small portions of private lands now occur within the ordinary high-water lines. However, we understand that most of the lands where these changes may have occurred lie within the flowage and seepage easements purchased by the Federal Government under Public Law 93–251, section 56, passed in 1974. In addition, when the river meanders, the “government lot” or parcel owners abutting State-owned riverbed/banks may request parcel boundary adjustments to the new ordinary high-water line, and corresponding
adjustments in taxable acreage. Although the elevations of ordinary high water may have been lowered by the operations of Libby Dam since 1974, the lateral extent of the State-owned riverbed/banks along the steep levees may be closely approximated today through the COE’s definition of ordinary high-water line cited above. Thus, we believe the land we have designated as critical habitat is within lands owned by the State of Idaho.

Effect of Critical Habitat Designation

Section 7 Consultation

Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species. For these reasons, all should understand that critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery. Areas outside the critical habitat designation will continue to be subject to conservation actions that may be implemented under section 7(a)(1), and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard and the section 9 take prohibition. We anticipate that federally funded or assisted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best information available at the time of the designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if new information available to these planning efforts calls for a different outcome.

Critical habitat receives regulatory protection only under section 7 of the Act through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a Federal agency. In our regulations at 50 CFR 402.02, we define destruction or adverse modification as “* * * the direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical.” Aside from the added protection that may be provided under section 7, the Act does not provide other forms of protection to areas designated as critical habitat. Because consultation under section 7 of the Act does not apply to activities on private or other non-Federal lands that do not involve a Federal nexus, critical habitat designation would not afford any additional protections under the Act against such activities.

Section 7(a) of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out do not destroy or adversely modify critical habitat to the extent that the action appreciably diminishes the value of the critical habitat for both the survival and recovery of the species. Individuals, organizations, State, Tribal, and local governments, and other non-Federal entities are affected by the designation of critical habitat only if their actions occur on Federal lands, require a Federal permit, license, or other authorization, or involve Federal funding. Thus, activities on Federal lands that may affect the Kootenai River white sturgeon or its critical habitat, if designated, will require section 7 consultation. Actions on private or State lands receiving funding or requiring a permit from a Federal agency also will be subject to the section 7 consultation process if the action may affect the species or its critical habitat. Federal actions not affecting the species or its critical habitat, as well as actions on non-Federal lands that are not federally funded or permitted, will not require section 7 consultation.

Federal agencies are required to evaluate their actions with respect to any species that is listed as endangered or threatened, and with respect to its designated critical habitat. Regulations implementing these interagency cooperation provisions of the Act are codified at 50 CFR part 402.

If we find a proposed agency action is likely to destroy or adversely modify the critical habitat, our biological opinion may include reasonable and prudent alternatives to the action that are designed to avoid destruction or adverse modification of critical habitat. Reasonable and prudent alternatives are defined at 50 CFR 402.02 as alternative actions that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency’s legal authority and jurisdiction, that are economically and technologically feasible, and that we believe would avoid destruction or adverse modification of critical habitat. Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative vary accordingly.

Regulations at 50 CFR 402.16 also require Federal agencies to reinitiate consultation in instances where we have already reviewed an action for its effects on listed species if critical habitat is subsequently designated and the Federal agency has retained discretionary involvement or control over the action or such discretionary involvement or control is authorized by law. Consequently, some Federal agencies may request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions may affect designated critical habitat.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe in any proposed or final regulation that designates critical habitat those activities involving a Federal action that may adversely modify such habitat, or that may be affected by such designation. Activities may destroy or adversely modify critical habitat include those that alter the primary constituent elements to an extent that the value of critical habitat for both the survival and recovery of the Kootenai River population of white sturgeon is appreciably reduced. We note that such activities may also jeopardize the continued existence of the species. A wide range of Federal activities may include land and water management actions of Federal agencies (e.g., Bonneville Power Administration, Natural Resources Conservation Service, Bureau of Indian Affairs, USFS, EPA, COE, and the U.S. Fish and Wildlife Service), and related or similar actions of other federally regulated projects (e.g., road and bridge construction or maintenance activities by the Federal Highway Administration; dredge and fill projects, sand and gravel mining, bank stabilization activities conducted by the COE; and NPDES permits authorized by the EPA). These activities may destroy or adversely modify critical habitat if they alter the primary constituent elements (defined above) to an extent that the value of critical habitat for both the survival and recovery of the Kootenai River population of white sturgeon is appreciably reduced. Activities that, when carried out, funded, or authorized by a Federal agency, may destroy or adversely modify critical habitat include, but are not limited to:

(1) Altering the flow regime within the critical habitat in ways that prevent reproduction and fertilization. For example, flood control and hydroelectric operations
and water release configuration limitations of Libby Dam may destroy or adversely modify critical habitat by altering habitat for normal breeding behavior, shelter for incubating eggs, and cover for yolk sac larvae.

(2) Altering the flow regime within the critical habitat in ways that prevent the necessary conditions for incubating eggs and developing yolk sac larvae. Flood control and hydroelectric operations combined with the water release configuration limitations of Libby Dam may destroy or adversely modify critical habitat necessary for incubation of eggs and development of yolk sac larvae by altering riverbed substrate composition through reduced bed load transport energy and unnatural distribution of stream bed sand and silt.

Land management activities accelerating sediment releases from watersheds entering the Kootenai River below Libby Dam, and above or within critical habitat, may also destroy or adversely modify this critical habitat through increased deposition of sand and silt in the streambed. Other actions, including channelization, levee reconstruction, stream bank stabilization, gravel removal, and road and bridge construction, may also affect critical habitat.

(3) Altering water chemistry. Possible actions include the release of chemicals or biological pollutants into the waters passing through the critical habitat from point sources or by dispersed releases (non-point sources). These examples indicate the types of activities that will require consultation in the future and, therefore, that may be affected by critical habitat designation. These kinds of activities would also generally require consultation when they affect a listed species, irrespective of impacts to critical habitat. To properly portray the effects of critical habitat designation, we must first compare the section 7 requirements for actions that may affect critical habitat with the requirements for actions that may affect a listed species. Section 7 prohibits actions funded, authorized, or carried out by Federal agencies from jeopardizing the continued existence of a listed species or by adversely modifying the listed species’ critical habitat. Actions likely to “jeopardize the continued existence” of a species are those that would appreciably reduce the likelihood of the species’ survival and recovery. Actions likely to “destroy or adversely modify” critical habitat are those that would appreciably reduce the value of critical habitat for normal spawning (salmonid) or for yolk sac larvae recovery of the listed species. Common to both definitions is an appreciable detrimental effect on both survival and recovery of a listed species. Given the similarity of these definitions, actions likely to destroy or adversely modify critical habitat would almost always result in jeopardy to the species concerned, particularly when the area of the proposed action is occupied by the species concerned. As a result, we do not expect that designation of critical habitat in this area, occupied by the Kootenai River population of white sturgeon, will result in a regulatory burden substantially above that already in place, due to the presence of the already-listed species.

Federal actions that are found likely to destroy or adversely modify critical habitat (or to jeopardize the continued existence of the species) may often be modified, through development of reasonable and prudent alternatives, in ways that will remove the likelihood of destruction or adverse modification of critical habitat (or jeopardy). Project modifications may include, but are not limited to, adjustment in timing of projects to avoid sensitive periods for the species and its habitat; minimization of work and vehicle use in the wetted channel; avoidance of pollution; use of alternative material sources; sediment barriers; and use of best land management and construction practices.

If you have questions regarding whether specific activities will likely constitute destruction or adverse modification of critical habitat, contact the Supervisor, Upper Columbia River Fish and Wildlife Office (see ADDRESSES section). Requests of the regulations on listed wildlife, and inquiries about prohibitions and permits may be addressed to the Division of Endangered Species, U.S. Fish and Wildlife Service, 911 NE 11th Avenue, Portland, Oregon 97232–4181 (telephone 503–231–6158; facsimile 503–231–6243).

Summary of Comments and Recommendations

We twice requested all interested parties to submit comments or information that might bear on the designation of critical habitat for Kootenai River white sturgeon (65 FR 80618 and 66 FR 20962). We contacted all appropriate State and Federal agencies, Tribes, county governments, conservation organizations, and other interested parties and invited them to comment. In addition, we published newspaper notices inviting public comment and announcing the public hearings in the following newspapers—Spokane Valley Daily News, Spokane County Daily Bee in Idaho, and The Western News (Libby) in Montana.

We held a public hearing on the proposed rule in Bonners Ferry, Idaho, on January 18, 2001. Transcripts of this hearing are available for inspection (see ADDRESSES section).

A total of 21 commenters responded, 13 in writing and 8 orally. One commenter supported critical habitat as proposed, five commenters were opposed, and the remaining commenters were neutral to designation of critical habitat. Ten of the commenters were interested in expansion of the economic analysis to address all additional impacts of having listed the Kootenai River white sturgeon under the Act. We have reviewed all comments received for substantive issues and new data regarding critical habitat and the Kootenai River population of white sturgeon. Repeated or very similar comments are combined into single comments and responses.

During the public comment periods, we also received numerous written and oral comments that involved matters related to our December 2000 jeopardy biological opinion on the operations of the Federal Columbia River Power System, but unrelated to the designation of critical habitat. Only those comments involving impacts of our previous biological opinions which are applicable to our discussion of the economic baseline are addressed here.

Issue 1: One commenter suggested that we should include the entire range of the sturgeon, 168 river miles, as critical habitat.

Our Response: This is beyond the scope and intent of designating critical habitat (50 CFR 424.12 (b and c)). We only designated the reach of the river that is essential to the conservation of the species. We do not believe that the entire river meets the definition of critical habitat. Critical habitat is defined in section 3(5)(A) of the Act (see the “Critical Habitat” section of this rule).

Issue 2: One commenter stated that all upstream and upgradient habitats up to the watershed divide should be included as critical habitat for the sturgeon. Three other commenters suggested expanding the area of critical habitat some unspecified distance upstream of Bonners Ferry, Idaho.

Our Response: By regulation, designation of critical habitat involves a definable site that is essential for its conservation (50 CFR 424.12 (b and c)) and may require special management. Exposed gravel substrates exist in the Kootenai River bed upstream of the area we have designated as critical habitat, and these appear suitable for sturgeon spawning and early-life-stage rearing. There are no barriers that preclude
sturgeon access to this river reach. The modest experimental augmentation flows in 1996 and 1997 intended to attract spawning sturgeon to this area were successful. However, based on the absence of historic observations and 10 years of monitoring sturgeon spawning movements through radio tracking of adults and sampling for eggs and larvae, there is no evidence that sturgeon have ever used this reach of the Kootenai River for spawning or early-life-stage rearing.

We know peak runoff event river depths and stream energy necessary to transport bedload have been altered by the operations of Libby Dam. Prior to the operations of Libby Dam, peak flows occasionally exceeded 100,000 cubic feet per second (cfs), and the average annual peak discharge was approximately 75,000 cfs. Since Libby Dam became operational, the average annual peak has been reduced to approximately 35,000 cfs (U.S. Army Corps of Engineers 2001). New information supports the proposed designation because it indicates the gravel/cobble substrate does exist in the area that we proposed. USGS geologists have analyzed core samples of the riverbed, and identified a “buried gravel/cobble geomorphic reach” extending from the railroad bridge in Bonners Ferry downstream about to the confluence with Deep Creek, a distance of about 3 miles, and entirely within critical habitat (Gary Barton, USGS, pers. comm. 2001). The purpose of this ongoing study is to determine whether it is likely that this gravel/cobble substrate (that may be suitable for sturgeon spawning/incubation) has been buried under sand and silt by the reduction in peak flow events and the loss of stream energy (necessary to naturally transport sediment), which may have occurred since Libby Dam became operational. The USGS has recently agreed to expand their ongoing studies to determine if there have been changes in the geomorphology of this reach of the Kootenai River that may affect the sturgeon.

At this time we do not have sufficient information to warrant expansion of critical habitat upstream of the area now designated. We do not believe that designation of all upstream and upgradient habitats up to the watershed divide as critical habitat is essential to the conservation of the species.

Issue 3: One commenter stated that poor recruitment since the 1960’s warrants expansion of critical habitat into more diverse habitats such as off-channel rearing areas.

Our Response: The need to evaluate the use of off-channel habitats is acknowledged in the recovery plan, and a feasibility study is under way to determine if larval and juvenile sturgeon will occupy a reconnected meander channel (U.S. Fish and Wildlife Service 1999). Most of the off-channel habitat was eliminated long before 1975 when recruitment failure was recorded. White sturgeon in other portions of the Columbia River basin continue to recruit without off-channel habitats. In addition, off-channel Kootenai River habitat on the Creston Wildlife Management Area, British Columbia, now support introduced largemouth bass, a potential predator of young of the year sturgeon, thus supporting the idea that off-channel habitat are not suitable for the sturgeon.

Issue 4: Two commenters stated that the sturgeon’s decline has resulted from cumulative effects of large-scale watershed alteration. Watershed processes that support the sturgeon’s life history requirements must be restored, or at least not further degraded to ensure the “conservation of the species.”

Our response: We acknowledge that there may be a variety of stressors, such as lack of turbidity, affecting constituent elements for sturgeon recruitment in addition to the substantially altered hydrograph since 1975, when Libby Dam became fully operational. These possible stressors are identified as study needs in the Recovery Plan (U.S. Fish and Wildlife Service 1999). However, at this time we have no compelling scientific information on any additional stressors that would warrant expansion of critical habitat.

Issue 5: Libby Dam should be decommissioned or converted to a “run-of-the-river” project. Reestablishment of a natural regime with associated stream functions is necessary to preclude adverse modification of critical habitat.

Our Response: Our recommendations in the 1995 and 2000 jeopardy biological opinions for Kootenai River white sturgeon have been focused on incremental reestablishment of the physical and biological features essential to the conservation of the species through changes in the operations of Libby Dam, including modified flood control procedures that allow water storage for the sturgeon and other listed fish, increased release capacity at Libby Dam, water temperature management, and restoration of channel capacity near Bonners Ferry through levee repairs (U.S. Fish and Wildlife Service 1995 and 2000). The intent of our recent comment is to modify operations of the Libby Project, as necessary, within its originally authorized purposes to conserve the sturgeon.

Issue 6: One commenter asked what critical habitat would do for the sturgeon and whether the biological opinion will be amended.

Our Response: Our December 2000 jeopardy biological opinion involving the operations of the Libby Project for the next 10 years is based on the same biological information used in this designation of critical habitat (U.S. Fish and Wildlife Service 2000). The reasonable and prudent alternatives in this biological opinion were provided to the action agencies (Corps of Engineers (COE), Bonneville Power Administration, and Bureau of Reclamation) to avoid jeopardy to Kootenai River white sturgeon.

Finalization of this critical habitat designation will require that our December 2000 biological opinion be amended; however, we expect that this will not result in additional requirements affecting operations of Libby Dam, as the existing measures adequately address critical habitat.

Issue 7: One commenter stated that the use of the ordinary high-water line to delineate the lateral margins of critical habitat is confusing, and asked for an explanation of why the ordinary high-water line was selected.

Our Response: The ordinary high-water line was selected because it has an established definition cited elsewhere in this document, and it generally corresponds to the property lines separating State-owned lands from other lands in this area. A common indicator of this line is a distinct change in vegetation such as a grass or tree line. During 10 years of monitoring, no sturgeon have been observed spawning along the banks or in the vegetation along the Kootenai River near what appears to be the ordinary high-water line, and no sturgeon egg has been recovered from the river bottom in less than 3 meters (m) (about 10 feet (ft)) of water. These observations suggest that the primary constituent elements and habitat deemed critical for sturgeon reproduction in the Kootenai River lie within the ordinary high-water lines, and are generally associated with the bed of the river rather than with riparian vegetation above the ordinary high-water lines.

Issue 8: The area delineated as critical habitat does not account for Kootenai River water surface elevations, which may be above the ordinary high-water lines during sturgeon augmentation flows, and this may impact private property adjacent to State lands along the area of critical habitat and elsewhere along the Kootenai River.
Our Response: Water surface elevations above the ordinary high-water lines may occur based on our recommendations in the December 2000 biological opinion on the operations of the Federal Columbia River Power System, which includes operations of Libby Dam (U.S. Fish and Wildlife Service 2000). Similarly, water surface elevations may increase upstream and downstream of this 11.2-mile reach of the Kootenai River we are designating as critical habitat. The primary constituent elements are not known to be found in any of these adjacent areas. Thus, we do not consider lands higher in elevation and outside of the ordinary high-water lines to be critical habitat. Potential impacts of elevated river stages on private property above or beyond designated critical habitat and resulting from recommendations in our 2000 biological opinion are described as part of the baseline in the economics section of this rule.

Issue 9: One commenter stated that any private lands within the area proposed as critical habitat should be identified.

Our Response: We have determined that the bed and banks of the Kootenai River within the area designated as critical habitat that are below the ordinary high-water lines are owned entirely by the State of Idaho. We have made a written request to the State to verify this determination, but we have received no response (U.S. Fish and Wildlife Service 2001). No specific exceptions or in-holdings within these State-owned lands were identified during the public comment periods.

Issue 10: One commenter noted that there are many uncertainties about factors limiting sturgeon recruitment. The commenter went on to state that decisions, such as critical habitat designation, which may impact their community should be delayed until research is completed to obtain the best available scientific information.

Our Response: When we designate critical habitat at the time of listing, as required under section 4 of the Act, or under short court-ordered deadlines, we may not have the information necessary to identify all areas which are essential for the conservation of the species. Nevertheless, we are required to designate those areas we know to be critical habitat, using the best information available to us. While we may prefer to have additional information, sufficient information, including a recovery plan (Service, 1999), is available to support a critical habitat designation.

Issue 11: One commenter asked if local land owners would have to consult with the Service to maintain their levees or repair pump discharge facilities if these activities occur within critical habitat.

Our Response: If there is a nexus such as a Federal permit, a Federal activity, or if there is Federal funding, the involved Federal agency would be responsible for consultation with us. Critical habitat would be but another consideration during that consultation.

Issue 12: One commenter asked if activities such as boating or discharges permitted under the National Pollution Distribution Elimination System would be affected.

Our Response: No impact upon boating is anticipated, because the constituent elements of critical habitat for the species are not affected by boating. National Pollution Distribution Elimination System (NPDES) permits are issued by the U.S. Environmental Protection Agency (EPA), and are developed based on the Idaho state Water Quality Standards. EPA permits control the pollutants released into waters of Idaho. These discharges may be from facilities such as municipal wastewater treatment plants, or from industrial discharges. Designation of critical habitat adds another consideration involving possible adverse modification of that habitat when we consult with Federal agencies on actions such as issuing NPDES permits. Through section 7 consultation, EPA will need to consider what pollutants may be in the discharge, how the pollutants compare with Idaho Water Quality Standards, and how those pollutants may affect Kootenai River white sturgeon, or the constituent elements of critical habitat. EPA provides a public comment and review period on any NPDES permits that are issued, so information on the effects of pollutants would be available at that time.

Issue 13: Ten commenters have expressed concern over loss of recreation income associated with changes in operations of Lake Koocanusa.

Our Response: See the economics section of this rule. Our biological opinion recommends adoption of the COE’s VarQ (Variable Flow) flood control procedures which will greatly increase the probability of Lake Koocanusa refill (McGrane 1999). In addition, we recommended that releases for sturgeon be based on the Montana Integrated Rule Curves (Marotz et al. 1999) meaning that there will be no augmentation for sturgeon during drought years such as this year (2001), and greater releases in exceptional runoff years like 1996 and 1997, when there is no difficulty refilling the reservoir. Relative to a best case model, the COE has estimated that with our biological opinion there may be a 2.3-ft reduction in average maximum water surface elevation of Lake Koocanusa, down to 2455.3 ft, and that may result in a 4 percent loss in visitor days on Lake Koocanusa (U.S. Army Corps of Engineers 1999). However, with the recently signed Libby Coordination Agreement, Lake Koocanusa may be held as much as 10 ft higher during August of some years (U.S. and Canadian Entities 1999). This increase in water surface elevation is expected to increase recreational use by about 12 percent. Losses in reservoir recreational use may be compensated for by increases in recreational use and associated commercialization of the Kootenai River below Libby Dam. This reach of the river supports a trophy rainbow trout fishery. Under our biological opinion for bull trout, minimum flows below Libby Dam will be increased by 50 to 125 percent during July and August, also increasing usable habitat for the rainbow trout population.

Issue 14: Three commenters expressed concerns that our recommendations in our biological opinion forLibby Dam may impact structures, wells, and sewage facilities, and may cause erosion of islands in the vicinity of Libby, Montana.

Our Response: The COE is initiating interagency studies and review under the National Environmental Policy Act which will determine the extent of any potential impacts associated with increasing releases from Libby Dam by 2004.

Issue 15: One commenter expressed concern over loss of recreation income associated with changes in operations of Lake Koocanusa.

Our Response: See the economics section of this rule. Our biological opinion recommends adoption of the COE’s VarQ (Variable Flow) flood control procedures which will greatly increase the probability of Lake Koocanusa refill (McGrane 1999). In addition, we recommended that releases for sturgeon be based on the Montana Integrated Rule Curves (Marotz et al. 1999) meaning that there will be no augmentation for sturgeon during drought years such as this year (2001), and greater releases in exceptional runoff years like 1996 and 1997, when there is no difficulty refilling the reservoir. Relative to a best case model, the COE has estimated that with our biological opinion there may be a 2.3-ft reduction in average maximum water surface elevation of Lake Koocanusa, down to 2455.3 ft, and that may result in a 4 percent loss in visitor days on Lake Koocanusa (U.S. Army Corps of Engineers 1999). However, with the recently signed Libby Coordination Agreement, Lake Koocanusa may be held as much as 10 ft higher during August of some years (U.S. and Canadian Entities 1999). This increase in water surface elevation is expected to increase recreational use by about 12 percent. Losses in reservoir recreational use may be compensated for by increases in recreational use and associated commercialization of the Kootenai River below Libby Dam. This reach of the river supports a trophy rainbow trout fishery. Under our biological opinion for bull trout, minimum flows below Libby Dam will be increased by 50 to 125 percent during July and August, also increasing usable habitat for the rainbow trout population.

Issue 16: One commenter stated water released for the sturgeon will result in a loss of hydroelectric power generation.

Our Response: All water released to date for sturgeon flow augmentation has passed through the generators and produced power. In the future, the Federal action agencies may choose to use the spillway for bull trout sturgeon augmentation flows. The COE will study this issue in the next few
years, and determine if it can be done without damage to the spillway, or without impacting water quality downstream of Libby Dam. If the spillway is used, that water would not go through the turbines. However, the spillway would only be used when water elevations in Lake Koocanusa were high, so water would also likely be passed through the turbines at the same time, and power would still be generated. Therefore, we do not anticipate any significant change in hydroelectric power generation. As a consequence, and as noted later in this document, we feel this action will not have a significant effect on energy supply, distribution, or use, and so will comply with Executive Order 13211.

Issue 17: One person commented that during 1999 Libby Dam was operated only three days for power, and during the remainder of the year it was operated for fish.

Our Response: We are aware of no instance during 1999 when water passing through Libby Dam was not used to generate power. This includes the periods when releases were shaped for listed fish. The only way water passing through Libby Dam would not be used to generate power is if there was a spill, and that has not occurred since 1981, before any operations for listed fish began.

Issue 18: One person commented that while rapidly fluctuating water levels from load following may be the primary factor causing levee erosion through most of Kootenai Valley, peak flow events including sturgeon flows are the primary factor causing lateral erosion of the river bank and levee upstream of Bonners Ferry in the area of their property.

Our Response: The USGS is evaluating existing information on possible changes in channel configuration in the Kootenai River upstream of Bonners Ferry that may have occurred since Libby Dam became operational. We have asked them to investigate the possibility that reduced peak flows since Libby Dam became operational, and the resulting loss of energy to transport bed load, may have increased streambed gravel deposition, reduced channel capacity and reduced water depths above Bonners Ferry. Such changes may influence sturgeon spawning site selection. If this has occurred, the rate of lateral migration of the river and erosion of banks may also be affected. The effects of the operations of Libby Dam may be very different in the higher gradient reach of the Kootenai River above Bonners Ferry.

Issue 19: One person commented that the Service is asking for flows up to 60,000 cfs which equates to a stage of 1,764 ft at Bonners Ferry, and property owners may suffer a million and a half dollars worth of crop damages in the valley, mainly from seepage.

Our Response: The 2000 biological opinion recommends release capacity at Libby Dam be increased from about 25,000 to 35,000 cfs, but specific flows for sturgeon are recommended annually, on an in-season adaptive management basis. This adaptive management approach considers the presence of sturgeon expected to spawn, attainable water temperatures, the stage of Kootenay Lake and its associated backwater effect, the duration of flows and seepage into agricultural lands, the extent of runoff entering the river below Libby Dam, and public safety based on levee condition (Service 2000). The highest flow coinciding with a sturgeon release was about 45,000 cfs on June 7, 1997. That release would have occurred in the absence of a specific recommendation for sturgeon because it was necessary to preclude a forced spill at Libby Dam and the possibility of an uncontrolled flood. Because of concern for flooding, the flow event was extended by the Corps of Engineers for 13 days, rather than the recommended 3 days (U.S. Fish and Wildlife Service 1999). The highest river stage at Bonners Ferry during this multipurpose release was 1,764.4 ft, which occurred at 3:00 a.m. on June 7, 1997. This was an unusual situation that was influenced by the cumulative back water effect of Kootenay Lake during an exceptionally high runoff year. Sturgeon flows have been in the range of 27,000 to 40,000 cfs. As authorized, Libby Dam was to control a 100-year flood event (0.01 exceedance frequency) to 57,000 cfs at Bonners Ferry, based on information that the reconstructed 1894 flood had been an 85- to 100-year event (McGrane 1995, 1996). In 1999, with additional flow records through 1978 available to better define a 100-year flood event, the authorized control level during a 100-year event was estimated to be 62,000 cfs, which corresponds to an elevation of 1,769.9 ft on Bonners Ferry of 1768.9 ft (McGrane 1999).

Presently, because some levee segments have not been well maintained, the COE has an operational policy to control the river to an elevation of 1,764 ft (a 10-year event or a 0.10 exceedance frequency), at Bonners Ferry when possible, and this corresponds to a flow of 53,000 cfs (McGrane 1999). This 1,764 ft was the average stage of the Kootenai River at Bonners Ferry for the entire month of June prior to the operations of Libby Dam (Army Corps of Engineers 2001).

The average stage for the month of May was 1,761 ft. Although seepage from these average stages and durations may have regularly affected some lands above river mile 143 (Dion and Whitehead 1973), we are aware of no information that a reduction in seepage was an authorized purpose of the Libby Project. Seepage is typically among the consequential effects of large flood control projects, and any seasonal reduction in seepage was an ancillary benefit of the Libby Project. The baseline for economic analysis in this document will be those conditions related to seepage prior to our 1995 biological opinion, rather than conditions related to seepage prior to operations of Libby Dam, addressed under other authorities.

Issue 20: One commenter asked if the designation of critical habitat would result in flows greater than those which we have recommended in our December 2000 biological opinion.

Our Response: No. We have no new information which would warrant additional increases in flows.

Methods

In finalizing critical habitat for the Kootenai River white sturgeon, we reviewed the overall approaches to conservation of the species taken by local, State, Tribal, and Federal agencies in the U.S. and Canada and private individuals and organizations since the species’ listing in 1994. We also solicited information from knowledgeable biologists and reviewed the available information pertaining to habitat requirements of the species. This final critical habitat designation described below constitutes our best assessment of the area essential for the conservation of the sturgeon, and is based on the best scientific and commercial information available. The area designated is currently within the range occupied by the species, and contains all of the primary constituent elements identified in the “Primary Constituent Elements” section. The area designated is entirely within the historic range of the species, and requires special management consideration and protection to ensure its contribution to the species’ recovery.

In an effort to map areas essential to the conservation of the species, we used data on known Kootenai River sturgeon spawning and early-life-stage rearing areas. In the lower Columbia River, where white sturgeon continue to spawn successfully, egg incubation sites and yolk sac fry development sites are at nightly downstream of spawning sites (Parsley et al. 1993). In the Kootenai River, eggs at all stages of
development and one hatching yolk sac fry have been found or downstream of the spawning sites. Since 1991, sturgeon eggs have been recovered in the Kootenai River between river kilometer 228 (river mile 141.4), below Shorty’s Island (Paramagian et al. 1995), and river kilometer 246 (river mile 152.6), above the Highway 95 bridge at Bonner’s Ferry, Idaho (Paragamian et al. in press). Although many of the eggs found were unattached and drifting along the river bottom, Paragamian et al. (in press) supports the assumption that the Kootenai River sturgeon egg collection sites are in the vicinity of the spawning sites. Further, since no other spawning sites have been identified in 10 years of monitoring, we believe these are the same sites where at least some successful egg incubation and yolk sac fry development has occurred, as evidenced by the 17 wild juveniles captured and aged to year classes within this same 10-year study period.

Existing structures within the critical habitat boundaries, such as highway and railroad bridges, do not contain primary constituent elements essential for sturgeon conservation, and therefore are not included in this critical habitat designation even though they are included within mapped critical habitat boundaries. Federal actions limited to those structures would not trigger a section 7 consultation, unless they affect the species and/or primary constituent elements in adjacent critical habitat.

Summary of Changes From the Proposed Rule

The final designation of critical habitat has no changes from the proposed designation.

Economic Analysis

Economic effects caused by listing the sturgeon as a Federally protected endangered species, and by other statutes, are the baseline against which the effects of a critical habitat designation are evaluated. The economic analysis must then examine the incremental economic and conservation benefits and effects of the critical habitat designation. Economic effects are measured as changes in national income, regional jobs, and household income, when possible. An analysis of the designation of critical habitat for the sturgeon was prepared (Bioeconomics, Inc. 2001, under contract with Industrial Economics, Inc.) and made available for public review and comment (April 18, 2001, through May 29, 2001; 66 FR 20962).

An addendum to the draft economic analysis was prepared and its availability is noted below in the “Economic Analysis” section. This addendum includes additional baseline information associated with the listing of the sturgeon and subsequent section 7 consultations, responses to public comments on the draft economic analysis, and is consistent with the May 11, 2001, ruling by the U.S. Court of Appeals, Tenth Circuit.

The final analysis, which reviewed and incorporated public comments, concluded that no additional costs or benefits are estimated to accrue from the designation of critical habitat for the sturgeon. All estimated costs and benefits from either ongoing impacts of past section 7 consultations, or associated with anticipated future consultations are attributable to the listing requirements of the Act and not any additional requirements associated with critical habitat designation. These listing-related impacts are estimated to include less than $2,000 per year in additional costs of completing consultations involving the sturgeon. Additionally, it is estimated that up to approximately $300,000 per year of seepage-related crop damage resulting from all water sources may occur in the Kootenai Valley. However, there was not sufficient information available to segregate crop damage resulting specifically from Kootenai River seepage during sturgeon augmentation flows recommended under section 7 of the Act, from those crop damages resulting from seepage during other high river flows, or from those crop damages resulting from entirely different water sources. This estimate of seepage-related crop damage may be a high estimate depending on actual crop locations, and the flow levels and durations of future sturgeon-related river flows. Levee owners along the Kootenai River may also benefit from modified river flows (reduced hydroelectric load following) resulting from section 7 consultation that will lead to reduced erosion and maintenance costs on most privately owned levees along the river. The small (4 percent) estimated loss in visitor use days on Lake Koocanusa, due to releases for sturgeon, may be offset by increased summer lake levels resulting from the Libby Coordination Agreement between the U.S. and Canada, and also by improved recreational fishing opportunities below Libby Dam associated with increased and more stable instream flows during July and August.

A copy of the final economic analysis is included in our administrative record and may be obtained by contacting the U.S. Fish and Wildlife Service, Upper Columbia Fish and Wildlife Office, 11103 East Montgomery Drive, Spokane, Washington 99206, or at http://pacific.fws.gov/news/2001–60.htm.

Required Determinations

Regulatory Planning and Review

In accordance with Executive Order (EO) 12866, this rule is a significant regulatory action and has been reviewed by the Office of Management and Budget (OMB).

(a) In the economic analysis, we determined that this rule will not have an annual economic effect of $100 million or more adversely affect an economic sector, productivity, jobs, the environment, or other units of government. The Kootenai River population of white sturgeon was listed as endangered on September 6, 1994. We have recently completed one formal section 7 consultation with the COE, Bonneville Power Administration, and the Bureau of Reclamation on operations of the Federal Columbia River Power System, in part, to ensure that their actions would not jeopardize the continued existence of the Kootenai River population of white sturgeon. Based on the proposed action, we issued a jeopardy biological opinion on the sturgeon in December 2000.

Under the Act, critical habitat does not impose any restrictions on non-Federal persons unless they are conducting activities funded or otherwise authorized by a Federal agency (see Table 1).
Section 7 of the Act requires Federal agencies to ensure that they do not jeopardize the continued existence of the species. Based upon our experience with the species and its needs, we conclude that any Federal action or authorized action that could potentially cause adverse modification of designated critical habitat would currently be considered as "jeopardy" under the Act. Accordingly, the designation of areas within the geographic range occupied by the Kootenai River population of white sturgeon does not have any incremental impacts on what actions may or may not be conducted by Federal agencies or non-Federal persons that receive Federal authorization or funding. Non-Federal persons that do not have a Federal "sponsorship" of their actions are not restricted by the designation of critical habitat, although they continue to be bound by the provisions of the Act concerning "take" of the species.

(b) This rule is not expected to create inconsistencies with other agencies' actions. As discussed above, Federal agencies have been required to ensure that their actions do not jeopardize the continued existence of the Kootenai River white sturgeon since its listing in 1994. The prohibition against adverse modification of critical habitat is expected to impose few, if any, additional restrictions to those that currently exist. However, we will continue to review this proposed action for any inconsistencies with other Federal agency actions.

(c) This final rule will not significantly impact entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients. Federal agencies are currently required to ensure that their activities do not jeopardize the continued existence of the species, and, as discussed above, we do not anticipate that the adverse modification prohibition (resulting from critical habitat designation) will have any incremental effects in areas of designated critical habitat.

(d) OMB has determined that this rule will raise novel legal or policy issues and, as a result, this rule has undergone OMB review.

Regulatory Flexibility Act

Under the Regulatory Flexibility Act (5 U.S.C. 601 et seq., as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of an agency certifies the rule will not have a significant economic impact on a substantial number of small entities.

SBREFA amended the Regulatory Flexibility Act to require Federal agencies to provide a statement of the factual basis for certifying that a rule will not have a significant economic impact on a substantial number of small entities. The following discussion explains our determination.

We have examined this rule's potential effects on small entities as required by the Regulatory Flexibility Act, and have determined that this action will not have a significant economic impact on a substantial number of small entities.

As discussed in the economic analysis for this rulemaking and the preamble above, this rule is not expected to result in any significant restrictions in addition to those currently in existence for areas occupied by the Kootenai River population of white sturgeon and designated as critical habitat. As indicated in Table 1, we identified the types of Federal actions or authorized activities that are of potential concern. If these activities sponsored by Federal agencies within the designated critical habitat areas are carried out by small entities (as defined by the Regulatory Flexibility Act) through contract, grant, permit, or other Federal authorization, as discussed above, these actions are currently required to comply with the listing protections of the Act, and the designation of critical habitat is not anticipated to have any significant additional effects on these activities in areas of critical habitat occupied by the species. For actions that have no Federal connection (such as funding or authorization), the current restrictions concerning take of the species remain in effect, and this rule will have no additional restrictions.

Therefore, we are certifying that this final designation of critical habitat is not expected to have a significant adverse impact on a substantial number of small entities. Thus, no regulatory flexibility analysis is necessary.

Executive Order 13211

On May 18, 2001, the President issued an Executive Order (EO 13211) on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. As this final rule is not expected to

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### Table 1.—Activities potentially impacted by Kootenai River population of white sturgeon listing and critical habitat designation.

<table>
<thead>
<tr>
<th>Categories of activities</th>
<th>Activities potentially affected by species listing only ¹</th>
<th>Additional activities potentially affected by critical habitat designation ²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potentially Affected Activities that are Initiated by a Federal Agency.</td>
<td>Operation of dams, reservoirs, and other water control facilities in the Kootenai River watershed. Federal issuance of scientific permits, operation of captive propagation facilities, sturgeon habitat restoration. Construction and/or operation of freshwater hatcheries, water withdrawal projects, approval of new or revised water quality standards, pesticide registration, streambank stabilization, gravel mining, road and bridge construction, pipeline streamcrossings, and sturgeon habitat restoration that require a Federal action (permit, authorization, or funding).</td>
<td>None.</td>
</tr>
<tr>
<td>Potentially Affected Activities Initiated by a Private or Other Non-Federal Entity That May Need Federal Authorization or Funding.</td>
<td>None.</td>
<td>None.</td>
</tr>
</tbody>
</table>

¹ This column represents the activities potentially affected by listing the Kootenai River population of white sturgeon as an endangered species (September 6, 1994; 59 FR 45989) under the Endangered Species Act.

² This column represents the activities potentially affected by the critical habitat designation in addition to those activities potentially affected by listing the species.
significantly affect energy supplies, distribution, or use, this action is not a significant energy action and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.):-(a) This rule will not “significantly or uniquely” affect small governments. A Small Government Agency Plan is not required. Small governments will be affected only to the extent that any programs having Federal funds, permits, or other authorized activities must ensure that their actions will not adversely affect the critical habitat. However, as discussed above, these actions are currently subject to equivalent restrictions through the listing protections of the species, and no further restrictions are anticipated in areas of occupied designated critical habitat.

(b) This rule will not produce a Federal mandate of $100 million or greater in any year, that is, it is not a “significant regulatory action” under the Unfunded Mandates Reform Act. The designation of critical habitat imposes no obligations on State or local governments.

In the economic analysis, we determined the designation of critical habitat will not have a significant effect on a substantial number of small entities. As discussed under Regulatory Planning and Review above, this rule is not expected to result in any restrictions in addition to those currently in existence for areas of occupied critical habitat.

Small Business Regulatory Enforcement Fairness Act (5 U.S.C. 804(2))

Under our economic analysis, we determined the designation of critical habitat will not cause: (a) any increases in costs or prices for consumers, individual industries, Federal, State, Tribal, or local government agencies, or geographic regions; or (b) any significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises. As discussed above, we anticipate that the designation of critical habitat will not have any additional effects on these activities in areas of critical habitat occupied by the species.

Takings

In accordance with Executive Order 12630, this rule does not have significant takings implications, and a takings implication assessment is not required. This rule will not “take” private property. The designation of critical habitat affects only Federal agency actions. The rule will not increase or decrease the current restrictions on private property concerning take of the Kootenai River population of white sturgeon. Additionally, critical habitat designation does not preclude development of habitat conservation plans and issuance of incidental take permits. Non-Federal landowners in areas that are included in the designated critical habitat will continue to be able to make economic use of their property.

Federalism

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. The designation of critical habitat in areas currently occupied by the Kootenai River white sturgeon imposes no additional restrictions on state or private activities than those currently in place, and therefore has little incremental impact on State and local governments and their activities.

In keeping with Department of the Interior policy, we requested information from and coordinated development of this critical habitat designation with appropriate State resource agencies in Idaho. We also utilized information on critical habitat submitted by the State during the listing of the Kootenai River white sturgeon. The State now has representation on our recovery team. Consequently, we will continue to coordinate this and any future designation of critical habitat with the appropriate State agency.

Civil Justice Reform

In accordance with Executive Order 12988, the Department of the Interior’s Office of the Solicitor determined that this rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. The Office of the Solicitor will review the final determination. We have made every effort to ensure that this final determination contains no drafting errors, provides clear standards, simplifies procedures, reduces burden, and is clearly written such that litigation risk is minimized.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This designation does not contain any information collection requirements for which OMB approval under the Paperwork Reduction Act is required.

National Environmental Policy Act

We have determined that we do not need to prepare an Environmental Assessment and/or an Environmental Impact Statement as defined by the National Environmental Policy Act of 1969 in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act, as amended. We published a notice outlining our reasons for this determination in the Federal Register on October 25, 1983 (48 FR 49244).
indirect adverse effects to Tribal lands through management actions intended to enhance or maintain critical habitat on adjacent State of Idaho lands. However, we do anticipate beneficial effects to Tribal resources, including maintained water quality and continued conservation of the sturgeon, from the designation of critical habitat on adjacent non-tribal lands.

Author

The primary author of this notice is Bob Hallock, U.S. Fish and Wildlife Service (see ADDRESSES section).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and Record Keeping Requirements, Transportation.

Regulation Promulgation

Accordingly, we amend part 17, subchapter B of chapter 1, title 50 of the Code of Federal Regulations as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:


2. Amend §17.11(h), by revising the entry for “Sturgeon, white” under “FISHES” in the List of Endangered and Threatened Wildlife to read as follows:

§17.11 Endangered and threatened wildlife.

(h) * * * * *

Species

<table>
<thead>
<tr>
<th>Common name</th>
<th>Scientific name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sturgeon, white</td>
<td>Acipenser transmontanus</td>
</tr>
</tbody>
</table>

3. Amend §17.95(e) by adding critical habitat for the Kootenai River population of white sturgeon (Acipenser transmontanus) in the same alphabetical order as this species occurs in §17.11(h) to read as follows:

§17.95 Critical habitat—fish and wildlife.

(e) Fishes.

Kootenai River population of white sturgeon (Acipenser transmontanus)

1. Idaho, Boundary County: Kootenai River from river kilometer 228 (river mile 141.4) to river kilometer 246 (river mile 152.6), as indicated on the map below, from ordinary high-water line to opposite bank ordinary high-water line as defined in 33 CFR 329.11.

2. Primary constituent elements include those that are essential for the primary biological needs of normal behavior, water requirements, cover, shelter, breeding, and rearing of offspring. These elements include the following: (1) A flow and hydrologic regime characterized by water magnitude, timing, depth, velocity, and quality (including temperatures) necessary for normal behavior involving breeding site selection, breeding and fertilization, and cover for egg incubation and yolk sac fry development; (2) a flow and hydrologic regime characterized by water of sufficient duration and magnitude to restore or maintain riverbed substrate necessary for cover and shelter for both incubating eggs and yolk sac larvae; (3) a flow and hydrologic regime characterized by flow magnitude, time, velocity, depth, and duration necessary for the normal behavior of adult and juvenile sturgeon; and (4) water and sediment quality necessary for normal behavior, including breeding behavior, and the viability of all life stages, including incubating eggs and yolk sac larvae.

3. Within this area, existing structures, such as highway and railroad bridges, are not included in the critical habitat designation.

Note: Map follows.

Marshall P. Jones, Jr.,
Acting Assistant Secretary for Fish and Wildlife and Parks.

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