



Billing Code: 3510-22-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648-XF897

Endangered and Threatened Species; Recovery Plans

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of availability; request for comments.

SUMMARY: This notice announces the availability of the Southern Distinct Population Segment of Green Sturgeon (*Acipenser medirostris*) Draft Recovery Plan (Plan) for public review. NMFS is soliciting review and comment from the public and all interested parties on the Plan, and will consider all substantive comments received during the review period before submitting the Plan for final approval.

DATES: Comments and information on the draft Plan must be received by close of business on [*insert date 60 days after date of publication in the FEDERAL REGISTER*].

ADDRESSES: You may submit comments on this document by either of the following methods:

- *Electronic Submission:* Submit all electronic public comments to GreenSturgeon.[Comments](mailto:Comments@noaa.gov)@noaa.gov.
- *Mail:* Submit written comments to the National Marine Fisheries Service, Attn: GS Recovery Plan Team, 650 Capitol Mall, Suite 5-100, Sacramento, CA 95814.

Instructions: You must submit comments by one of the above methods to ensure that we receive, document, and consider them. Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered. All comments received are a part of the public record and will generally be posted for public viewing without change. All personal identifying information (*e.g.*, name, address, etc.), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible.

The draft recovery plan is available online at:

http://www.westcoast.fisheries.noaa.gov/protected_species/green_sturgeon/green_sturgeon_pg.html

FOR FURTHER INFORMATION CONTACT: Joe Heublein, NMFS Green Sturgeon Recovery Coordinator, at (916) 930-3719, or joe.heublein@noaa.gov.

SUPPLEMENTARY INFORMATION:

Background

On April 7, 2006, we, NMFS, listed the southern distinct population segment (sDPS) of green sturgeon as a threatened species under the Endangered Species Act (ESA) (71 FR 17757). This determination was based on: (1) the fact that the spawning adult population occurred in only one river system (*i.e.*, Sacramento River); (2) evidence of lost spawning habitat in the Sacramento and Feather rivers; (3) threats to habitat quality and quantity in the Sacramento River and Delta System; and (4) fish salvage data exhibiting a negative trend in juvenile sDPS green sturgeon abundance. The final critical habitat rule for sDPS green sturgeon was published in the *Federal Register* on October 9,

2009 (74 FR 52300). In 2010, we appointed a recovery team to assist the NMFS West Coast Region with the development of research and recovery actions for the recovery plan. A recovery outline was completed in 2010. In 2012, we announced initiation of a 5-year review (77 FR 64959; October 24, 2012) for sDPS green sturgeon. Based on the 5-year review, sDPS green sturgeon remains listed as threatened under the ESA. The 5-year review (NMFS 2014a) was completed November 20, 2014, and is available at: <http://www.fisheries.noaa.gov/pr/species/fish/green-sturgeon.html>

Draft Recovery Plan

Recovery plans describe actions beneficial to the conservation and recovery of species listed under the ESA of 1973, as amended (16 U.S.C. 1531 *et seq.*). Section 4(f)(1) of the ESA requires that recovery plans incorporate, to the maximum extent practicable: (1) objective, measurable criteria which, when met, would result in a determination that the species is no longer threatened or endangered; (2) site-specific management actions necessary to achieve the Plan's goals; and (3) estimates of the time required and costs to implement recovery actions. The ESA requires the development of recovery plans for each listed species unless such a plan would not promote its recovery.

The Plan for sDPS green sturgeon was developed by NMFS in cooperation with a recovery team made up of experts from the California Department of Fish and Wildlife, California Department of Water Resources, Oregon Department of Fish and Wildlife, NMFS Northwest and Southwest Fisheries Science Center, R2 Resource Consultants, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, and U.S. Geological Survey.

NMFS's goal is to restore the threatened sDPS green sturgeon to the point where it is a self-sustaining species that no longer needs the protections of the ESA. The Plan provides background on the natural history of green sturgeon, population status, and threats to their viability, based on a formal threats assessment. The Plan lays out a recovery strategy to address the threats based on the best available science, identifies site-specific actions with time lines and costs, and includes recovery goals and criteria.

In order to recover sDPS green sturgeon, recovery actions within the Plan aim to restore passage and habitat, reduce mortality and poaching, address threats in the areas of contaminants, predation, and sediment loading, and forecast sDPS habitat and distribution changes with climate change. Most of the recovery efforts focus on the Sacramento River Basin and San Francisco Bay Delta Estuary environments, as threats in spawning and rearing habitats were considered the greatest impediments to recovery. To better inform the recovery process, the Plan further characterizes research priorities in these areas as well as in the areas of competition for habitat, altered prey base, non-native species, oil and chemical spills, and disease.

The Plan is not regulatory, but presents guidance for use by agencies and interested parties to assist in the recovery of sDPS green sturgeon. The Plan identifies substantive actions needed to achieve recovery by assessing the species' population abundance, distribution, and diversity and addressing the threats to the species. When determining recovery actions, the Plan prioritized actions that address the most important threats, improve understanding of whether a particular threat is limiting recovery, and improve our understanding of, and ability to manage, that threat. The actions in the Plan

include research, management, monitoring, and outreach efforts, because a comprehensive approach to green sturgeon recovery is likely to have greater success than focusing on any one type of action.

We expect the Plan to inform section 7 consultations with Federal agencies under the ESA and to support other ESA decisions, such as considering permits under section 10. We have already begun implementation of several actions and research priorities as described in the plan, such as partnering with the California Department of Fish and Wildlife to reduce poaching and stranding of green sturgeon and improve knowledge of the impacts of fisheries bycatch. After public comment and the adoption of the Final Recovery Plan, we will continue to implement actions in the plan for which we have authority, encourage other Federal and state agencies to implement recovery actions for which they have responsibility and authority, and work cooperatively with them on the implementation of those actions.

The total time and cost to recovery are difficult to predict. The Plan outlines 19 recovery actions, as well as 17 research, eight monitoring, and two education and outreach priorities. An estimated cost is provided for an initial 20-year period. Projections of when certain actions could occur are provided based on five year increments. Assuming all recovery actions are implemented, the cost of the first 20 years of recovery is approximately \$236 million. Given a generation time for sDPS green sturgeon of approximately 22 years, a substantial increase in adult abundance in response to habitat-based recovery actions may not be observed for 66-88 years. Additional funds will thus

likely be needed to monitor adult abundance after the first 20 years, with a total added projected cost of \$25-40 million.

Many of the most costly recovery actions (e.g., barrier removal, increased enforcement, addressing entrainment at diversions) have multi-species benefits and may be covered under recovery efforts for other species. For example, the recovery plan for ESA-listed Central Valley salmonids (NMFS 2014b) includes recovery actions designed to improve watershed-wide processes that will likely benefit sDPS green sturgeon by restoring natural ecosystem functions. Specific actions to improve delta habitat, remove barriers, and reduce entrainment could aid in the recovery of sDPS green sturgeon and reduce the recovery plan cost by \$17 million.

We are unable to quantify the economic benefits of sDPS green sturgeon recovery actions, but full recovery or delisting will provide multiple benefits to the ecosystem and economy. Delisting of the sDPS will enhance fishing opportunities by lifting fisheries restrictions aimed at reducing direct or incidental sDPS mortality. The ESA regulatory burden will also be eased for fisheries, water resource, industrial, and commercial activities. Accomplishing the habitat restoration measures will also result in more functional ecosystems that support other economic activities and contribute to delisting of other species.

References Cited

The complete citations for the references used in this document can be obtained

by contacting NMFS (see **ADDRESSES** and **FOR FURTHER INFORMATION CONTACT**) or online at:

http://www.westcoast.fisheries.noaa.gov/protected_species/green_sturgeon/green_sturgeon_pg.html

Authority: 16 U.S.C. 1531 *et seq.*

Dated: January 4, 2018.

Angela Somma,

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Office of Protected Resources,

National Marine Fisheries Service.

[FR Doc. 2018-00208 Filed: 1/8/2018 8:45 am; Publication Date: 1/9/2018]