

## **Attachment to Notice of Exemption Emergency Action to Add Sections 5.78 and 27.93 during the Candidacy Period of White Sturgeon under the California Endangered Species Act**

The California Fish and Game Commission (Commission) took final action under the California Fish and Game Code and the Administrative Procedure Act with respect to the proposed project on August 15, 2024. The Commission adopted and noticed an emergency addition of sections 5.78 and 27.93, Title 14, California Code of Regulations (CCR). In compliance with the California Environmental Quality Act (CEQA: Public Resources Code Section 21000 et seq.), the Commission adopted the regulation relying on a statutory exemption contained in Public Resources Code Section 21080 (Actions Necessary to Prevent or Mitigate an Emergency).

### **Statutory Exemption for Specific Actions Necessary to Prevent or Mitigate an Emergency**

The Commission considered the following factors in determining whether an emergency exists: the magnitude of potential harm, the existence of a crisis situation, the immediacy of the need, and whether the anticipation of harm has a basis firmer than simple speculation. Because the regulation is intended to mitigate the worst economic consequences of the fishery closure during candidacy, adoption of the regulation by the Commission is an activity that is the proper subject of the statutory exemption.

White sturgeon (*Acipenser transmontanus*) is an anadromous species of fish that resides primarily in the San Francisco Bay/Sacramento-San Joaquin Delta (Delta) and migrates as adults into the major rivers of the Central Valley to spawn. Most spawning occurs in the Sacramento River between Verona and Colusa (Schaffter 1997), with a lesser amount of spawning on the lower San Joaquin River (Jackson et al. 2015). Some additional spawning may occur in tributaries such as the Feather, Bear, and Yuba rivers. White sturgeon is long lived, potentially in excess of 100 years, with most fish reaching maturity by approximately 14 to 19 years, spawning every 2 to 4 years once mature (Chapman et al. 1996; Hildebrand et al. 2016). Successful recruitment of juveniles is infrequent, occurring approximately every 6 to 7 years, highly correlated with above normal water years as measured by high mean daily Delta outflow (CDFW 2023; Fish 2010). Considerable declines in both relative and absolute abundance have been measured by CDFW (CDFW 2023; Danos et al. 2019). The most recent California Department of Fish and Wildlife estimate was approximately 33,000 fish (CDFW 2023).

White sturgeon have been the focus of a recreational fishery since 1954. Until recently, recreational anglers could keep 1 white sturgeon per day, and a combined total of 3 per year with a slot limit of 40 and 60 inches (in.) fork length (measurement of the fish from the front of its head to the fork in its tail). The season was open year-round, with some limited regional and/or seasonal closures. In 2022, a harmful algal bloom (HAB) of the marine phytoflagellate *Heterosigma akashiwo* resulted in the largest fish kill in the recorded history of the region. Many species were impacted during this event including white sturgeon. Over 850 white sturgeon carcasses were found during monitoring, but the full magnitude of the fish kill is unknown as only approximately 20% of the shoreline was able to be surveyed. A HAB of the same species occurred again in 2023, though of lower intensity, leading to 15 recorded white sturgeon carcasses. Due to cessation of funding for the historical abundance monitoring program, it has not been possible to make a white sturgeon abundance estimate since the HAB events.

As a result of long-term declines in the population, the impacts of the HAB, and the unknown current status of the population, in October 2023 the Department proposed an emergency regulation shifting the recreational fishery to catch and release only, as well as protecting migrating and spawning grounds. The goal of the 2023 emergency regulation recommendation was to protect the species from over-exploitation while long term fishing regulations could be revised that would offer harvest opportunities at levels that would not threaten the long-term success of the population. During the Commission meeting when considering the emergency regulation, the industry expressed concerns about the effect cessation of harvest would have on their business and livelihoods, particularly in light of a recent closure of the salmon fishery and changes to other popular fisheries, such as halibut and rockfish. In response, the Commission recessed to allow Department and Commission staff to meet with stakeholders to review and consider alternatives that previously had been proposed by members of the public. The resulting emergency regulation, reduced fishing pressure on white sturgeon while retaining a significantly reduced level of harvest. Under emergency regulations enacted on November 16, 2023, anglers with a white sturgeon report card are permitted to take 1 white sturgeon a year between 42 to 48 inches (fork length), with a maximum of 2 fish harvested per boat per day. Fishing is prohibited from January 1 through June 30 upstream of the Highway 50 bridge on the Sacramento River and the I-5 bridge on the San Joaquin River.

On November 29, 2023, the Commission received a petition from San Francisco Baykeeper, The Bay Institute, Restore the Delta, and California Sportfishing Protection Alliance to list white sturgeon as threatened under the California Endangered Species Act (CESA). The petitioners argued that long-term declines in the abundance of white sturgeon are due to: (1) Central Valley water management infrastructure and operations, (2) overharvest in the recreational fishery, (3) HABs, and (4) other factors such as poaching, pollution, vessel strikes, and climate change. The Department returned an evaluation on March 15, 2024, determining that the petition provided sufficient scientific information to indicate that the petitioned action may be warranted. On June 19, the Commission considered the petition, the Department's petition evaluation, and comments received, and determined that listing white sturgeon as threatened may be warranted, making it a candidate species under CESA and initiating a status review of the species by the Department.

Under CESA, candidate species receive the same take protections as a listed species while a status review is conducted. Non-harvest "catch and release" angling is a form of take; however, Fish and Game Code Section 2084 permits the Commission to authorize the take of candidate species of fish by hook and line for sport, based on the best available scientific information. The petitioners themselves stated that "a catch-and-release fishery for California white sturgeon is consistent with conserving and restoring these fish as hooking mortality is extremely low" (CESA Petition, p. 40). The Commission's decision to allow a sport catch and release fishery is consistent with the initial recommendation of the Department during the 2023 emergency fishing regulation process.

Scientific studies of the effects of angling on white sturgeon in other populations indicate that the species is robust and tolerates catch and release angling well. Studies from Idaho found that adult sturgeon in the C.J. Strike reservoir are hooked an average of 7.7 times, and landed 3.5 times, in a year (Kozfkay and Dillon 2010). These sturgeon experience a high level of catch and release every year without long-term negative consequences. In studies of gear effects, it has been observed that metal tackle that has been ingested is processed and expelled quickly (Lamansky et al. 2018; Bowersox et al. 2016). Mortality as a result of angling was examined in

the lower Fraser River, BC (Robichaud et al. 2006). Out of 25,219 angling events, no mortality was observed immediately upon capture and release. A subset of 96 angled fish were held in net pens for three days to evaluate delayed mortality. Two fish died by the end of the third day of the study (2.6% mortality); however, the authors indicated that the mortality was likely influenced by unsuitable conditions in the floating net pens (Robichaud et al. 2006). The best available science suggests that white sturgeon tolerate catch and release angling well. The Department believes that this activity could occur during the status review process without placing the remaining population at risk.

Total closure of the white sturgeon recreational fishery as a result of the species becoming a candidate species for CESA listing represents a financial crisis to Californians who rely on this fishery as part of their business; this includes boat captains, fishing guides, and businesses that rely on anglers such as bait and tackle stores and suppliers, marinas, and other boat services. Additionally, many of these businesses have already been impacted by other major fishery changes in the state, including two years of closure to the salmon fishery and changes to the halibut and rockfish fisheries.

Continuing to offer recreational white sturgeon fishing opportunities in ways that will not harm the viability of the population would help minimize financial impacts on white sturgeon-related businesses. Sturgeon catch and release fisheries are popular and lucrative in Oregon, Washington, Idaho, and British Columbia (B.C., Canada). For example, a 2022 survey of the Fraser River (B.C.) catch and release white sturgeon fishery (Fisheries and Oceans Canada 2024) found that anglers spend an average of US\$628 per day compared to US\$129 in all other fisheries combined. The expenditure is also substantially higher than guided white sturgeon trips in California, which average \$200-250 per angler. Higher B.C. average spending may be a reflection of the exceptionally large fish caught in the Fraser River that encourage a “trophy” fishery. Additionally, Fraser River anglers relied on paid guide services 46% of the time compared to 9% in all other fisheries. Per the report, “while accounting for only 1% of fishing days in 2022, White sturgeon fishing made up 6% of guided fishing days, 5% of total spending and 18% of spending on fishing packages.”

The candidacy decision and fishery closure occurred over a compressed time frame, with the CESA Petition delivered in late November 2023 and a decision by the Commission on June 19, 2024. Businesses received little warning and have not had much time to adjust inventory, staffing, and sales efforts to accommodate the loss of white sturgeon-related revenue. These businesses have also been significantly stressed by major closures and changes in other popular fisheries. The CESA status review process will take a minimum of 12 months to complete and the future status of the fishery is unknown. Offering catch and release fishing will provide immediate financial opportunities and allow the industry to continue to operate rather than face closure.

Failure to allow for catch and release under an emergency exemption would result in losses to fishing businesses and the fishing infrastructure that supports the white sturgeon fishery. Some of these businesses will likely not return to the sector if an exemption for catch and release fishing is not expedited. The loss of resources, including guiding opportunities and bait sources, as well as fishery knowledge, would negatively impact guides, their clients, and unaffiliated recreational anglers. As such, a delay in allowing catch and release angling would also frustrate the Department’s recruit, retain, and reactivate principles.

The expected extent of anticipated harm is based on financial data voluntarily supplied by white sturgeon fishing industry representatives and includes:

- Five commercial passenger fishing vessels, with a combined annual sturgeon fishing revenue of \$300,000.
- Twenty-four captains operating 6-pack vessels full time, with a combined annual revenue of \$1.2 million dollars. Six-pack vessels are small charter boats limited to a maximum of six passengers.
- Sixteen captains operating 6-pack vessels part time, with a combined annual revenue of \$300,000
- Approximately 45 charter/guide services, with \$1.8 million in total revenue.
- Between 10,000 and 15,000 recreational boats whose economic impacts include launch fees, gas, bait, tackle, rods, reels, ice and more.
- The supply chain of bait/suppliers/distributors with an estimated sturgeon fishing revenue of \$1 million, including approximately 50 tackle stores.

The Commission considered the following factors in determining whether an emergency exists: the magnitude of potential harm, the existence of a crisis situation, the immediacy of the need, and whether the anticipation of harm has a basis firmer than simple speculation. Because the regulation is intended to mitigate the worst economic consequences of the fishery closure during candidacy, adoption of the regulation by the Commission is an activity that is the proper subject of the statutory exemption.

### **Technical, Theoretical and/or Empirical Studies, Reports or Documents Relied Upon**

Bowersox, B. J., J. M. DuPont, R. Tucker, L. Barrett, and J. A. Lamansky. 2016. Determining the presence of hooks inside white sturgeon using metal detector and portable X-ray technology. *North American Journal of Fisheries Management* 36(5):1045-052.

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Chapman, F. A., J. P. Van Eenennaam, and S. I. Doroshov. 1996. The reproductive condition of white sturgeon, *Acipenser transmontanus*, in San Francisco Bay, California. *Fishery Bulletin* 94:628–634. Available online at <https://spo.nmfs.noaa.gov/sites/default/files/pdf-content/1996/944/chapman.pdf>.

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- Hildebrand, L. R., A. Drauch Schreier, K. Lepla, S. O. McAdam, J. McLellan, M. J. Parsley, V. L. Paragamian, and S. P. Young. 2016. Status of White sturgeon (*Acipenser transmontanus* Richardson, 1863) throughout the species range, threats to survival, and prognosis for the future. *Journal of Applied Ichthyology* 32:261–312.
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- Kozfkay, J. R., and J. C. Dillon. 2010. Creel Survey Methods to Assess Catch, Loss, and Capture Frequency of White Sturgeon in the Snake River, Idaho. *North American Journal of Fisheries Management* 30(1):221–229.
- Lamansky, J. A., K. A. Meyer, B. J. Bowersox, J. M. DuPont, B. Bentz, and K. B. Lepla. 2018. Incidence, Types, and Shedding and Ingestion Times of Metallic Fishing Tackle in the Digestive Systems of White Sturgeon. *North American Journal of Fisheries Management* 38(5):1152–1159.
- Robichaud, D., K. K. English, R. C. Bocking, and T. C. Nelson. 2006. Direct and delayed mortality of white sturgeon caught in three gear-types in the lower Fraser River. Sidney, BC.
- Schaffter, R. G. 1997. White sturgeon spawning migrations and location of spawning habitat in the Sacramento River, California. *California Fish and Game* 83(1):1–20.

### **Documents Providing Background Information**

- California Department of Fish and Wildlife (CDFW). 2023. White sturgeon 2023 Emergency Regulation Change: Supporting Material. California Department of Fish and Wildlife, Fisheries Branch, West Sacramento, California. Available online at <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=216457&inline>.
- Petition from San Francisco Baykeeper, The Bay Institute, Restore the Delta, and California Sportfishing Protection Alliance to list White sturgeon (*Acipenser transmontanus*) as threatened under the California Endangered Species Act. Available online at <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218091&inline>.
- Petition from Northern California Guides and Sportsmen’s Association to authorize a recreational fishery if a candidacy petition is approved for White sturgeon pursuant to statutory authorization in Fish and Game Code Section 2084.