

California Fish and Game Commission
Finding of Emergency and
Statement of Proposed Emergency Regulatory Action

Emergency Action to Add Sections 5.78 and 27.93
Title 14, California Code of Regulations
Re: White Sturgeon Sport Fishing During CESA Candidacy Emergency

Date of Statement: August 6, 2024

Throughout this document, Department or CDFW refer to the California Department of Fish and Wildlife and Commission refers to the California Fish and Game Commission. Unless otherwise specified, all section references in this document are to Title 14 of the California Code of Regulations (CCR).

I. Statement of Facts Constituting the Need for Emergency Regulatory Action

Background

White sturgeon (*Acipenser transmontanus*) is an anadromous species of fish that resides primarily in the San Francisco Bay Delta (SF Bay) 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 are long lived, potentially in excess of 100 years, with most reaching maturity by approximately 14 to 19 years, spawning every two to four years once mature (Chapman et al. 1996; Hildebrand et al. 2016). Successful recruitment of juveniles is infrequent, occurring approximately every six to seven 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 the Department (CDFW 2023; Danos et al. 2019). The most recent Department 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 one white sturgeon per day, and a combined total of three per year with a slot limit of 40 and 60 inches (in.) fork length (FL; 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, the Department proposed an emergency regulation shifting the recreational fishery to catch-and-release only, as well as protection of the migrating and spawning grounds in October 2023. 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 California Fish and Game Commission meeting considering the emergency regulation, the industry expressed concerns about the effect a closure 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 brokered a compromise emergency regulation to reduce fishing pressure on white sturgeon while retaining harvest. This decision was based on economic duress and did not represent the best scientific understanding or recommendations. Under emergency regulations enacted on November 16, 2023, anglers with a Sturgeon Report Card are permitted to take one white sturgeon a year between 42 and 48 in. FL, with a maximum of two 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) Harmful Algal Blooms, 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 determined that the white sturgeon petition contained sufficient information to indicate that the petitioned action may be warranted based on the information in the record before the Commission, and directs staff to issue a notice reflecting this finding and indicating that white sturgeon is a candidate for threatened species status. The Commission's vote triggered the Department's responsibility to initiate a status review of white sturgeon.

Under CESA, candidate species receive full protection while a status review is conducted. This prohibition of take includes non-harvest "catch-and-release" angling; 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). This recommendation is in line with the position 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.

On May 28, 2024, the Nor-Cal Guides and Sportsmen's Association (NCGASA) submitted a petition for regulation change to the Commission stating that candidacy "has the potential to cause irreparable damage to the business and recreational anglers who fish for white sturgeon in California's coastal, Delta, and inland waters" (NCGASA 2024) noting impacts to guides, charter boat captains, and angling-associated businesses. Industry representatives requested an exemption to permit a recreational sturgeon fishery that includes harvest to continue to operate; however, the petition does not propose any specific regulatory options, such as seasons, geographic range, or harvest bag and size range limits.

Protections under CESA during candidacy exist to protect the species until a comprehensive, peer-reviewed status review can be completed and informed decisions made about how to manage the species. While the best available science suggests that non-lethal take via a catch-and-release fishery would not harm the long-term viability of white sturgeon in California, the Department does not believe the evidence supports any level of harvest during candidacy for the following reasons:

- At this time, there is no abundance estimate dating from after the HAB associated fish kills occurred (2022, 2023) and no way to assess the impact those events had on the population. In May of this year, the Department initiated a new pilot survey program for white sturgeon. The program has been very successful thus far and it is hoped that the Department will be able to make abundance estimates in the future, but it may take several years before suitable data exist to make such an estimate or to understand current population trends.
- The existing fisheries regulations adopted as an emergency action on October 11, 2023 that permit harvest of one sturgeon are a compromise that did not reflect the recommendation of the Department after the HAB, and were not based on scientific review or analysis. Further, these regulations have only been in place for eight months and the Department does not yet have any way to evaluate the effect those regulations have had on harvest rates. Sturgeon Report Cards operate on a calendar year schedule, so these data may not be analyzed until after report cards are returned by the

January 30, 2025 deadline. To date there is no way to determine if the existing regulations sufficiently protect the species from over-exploitation.

- While the Department had been developing recommendations for new long-term fishing regulations that included harvest prior to receipt of the petition, these were predicated on setting an annual harvest quota that restricted take to below sustainable levels. The annual quota would have been determined based on annual abundance monitoring and would have included an option for zero harvest (catch-and-release only) when conditions warranted it or if reliable data were lacking. The existing regulations have no restrictions on the maximum number of fish that could be harvested in any given year, focus harvest on narrow age cohorts of fish, and run the risk of overexploiting the population during candidacy.

Proposed Emergency Regulations

At its June 19, 2024, meeting, the Commission heard testimony from members of the sturgeon angling and business community requesting that the fishery remain open with some level of take. The concern expressed was that a complete closure of the fishery during CESA candidacy created substantial economic harm to businesses that rely on the white sturgeon fishery, including charter captains, guides, bait and tackle stores and suppliers, marinas, and related services. Such factors may be considered in authorizing some form of take under Section 2084 of the Fish and Game Code, which allows the Commission, based on the best available scientific information, to authorize the taking of any fish by hook and line for sport that is listed as an endangered, threatened, or candidate species. The potential for economic harm, coupled with the sudden nature of the protections that candidate species receive, constitutes an emergency that authorizes the Commission to address the matter through regulation. The Commission directed the Department to explore potential changes to the take prohibition granted with the June 19, 2024 decision on candidacy for the purpose of identifying potential fishing regulations that would mitigate economic impacts, while still providing protective regulatory measures to white sturgeon.

In response to this emergency situation, this proposed regulatory action creates two new sections under Title 14, CCR, that supersede but do not replace four existing sections addressing white sturgeon fishing and report card requirements. New section 5.78 combines most elements of existing sections 5.79 and 5.80, and defines seasons, closed areas, gear and handling restrictions, and report card requirements for catch-and-release fishing in inland waters. New section 27.93 combines 27.90 and 29.72 in the same manner for ocean waters. The existing sections (5.79, 5.80, 27.90, 27.92) will remain in Title 14 but will be inoperative pending the final Commission decision about the CESA listing status of white sturgeon after the status review process. The goal of these new regulations is to permit a catch-and-release fishery for white sturgeon during the CESA status review process since it is expected to have minimal impact on the population, while providing recreational opportunities for anglers and mitigating adverse economic impacts to businesses that serve sturgeon angling. The new regulations contain the following major changes from the previous regulations:

- Removal of all language related to harvest, including bag limits, annual limits, and size limits.

- Change of the fishing season. Prior to candidacy, white sturgeon could be fished all year in the San Francisco Estuary and the Delta. As per the emergency regulations adopted on November 16, 2023, fishing was not permitted between January 1 and May 31 on the Sacramento River (upstream of the Hwy 50 bridge) and the San Joaquin River (upstream of the I-5 bridge) in order to protect the migration path and spawning habitat of white sturgeon. Additional existing regional closures also remained in effect (e.g. Yolo Bypass, North Coast District, Special Sierra and Valley District Sturgeon Closure).
 - The proposed regulations would institute a fishing season of October 1 through June 30 in all waters downstream of the confluence of the Feather River on the Sacramento River and the I-5 Bridge on the San Joaquin River. No sturgeon fishing would be permitted in these areas between July 1 and September 30. These months experience the warmest air and water temperatures and pose the greatest risk of physiological stress to fish caught, played, and handled by anglers during that time. These months are also the least popular sturgeon fishing months based on both CDFW Sturgeon Report Card data and data collected by the fishing industry.
 - Fishing upstream of the confluence of the Feather River (Sacramento River) and the I-5 bridge (San Joaquin River) would be restricted to October 1 through December 31 to protect migration and spawning. This action expands the existing closure to include the warm summer months, as described above.
 - Fishing for sturgeon would not be permitted in tributaries of the Sacramento and San Joaquin rivers (including tributaries of those tributaries). The only reason white sturgeon enter these smaller rivers is to spawn and they do not reside there unless stranded by dropping flows. Federal Endangered Species Act (ESA) protected southern Distinct Population Segment (DPS) green sturgeon also enter these rivers and routinely stay over the summer or longer. Further, sturgeon in these rivers are restricted to small, deep holes and are more easily targeted by anglers. Any sturgeon present in these rivers would either be a spawning migrant or a protected green sturgeon and should not be the target of anglers.
- Addition of language describing permitted handling:
 - Due to their mouth shape and foraging habits, sturgeon rarely swallow tackle or suffer the types of deep hooking injuries that are common in other species. The most significant potential source of injury for sturgeon in a catch-and-release fishery will be related to how the fish are handled after catch. Sturgeon lack a rigid, bony skeleton and their skeletal frame mostly consists of cartilage with the exception of some heavy bones in the skull and pectoral girdle. Their structure is not evolved to support their heavy mass against gravity when in air and some care must be taken when handling them.
 - Prior to candidacy, the regulations required that fish greater than 68 inch FL could not be taken out of the water and had to be released immediately. This limit was set when the legal size for harvest was up to 60 inches FL and was designed to protect the largest, heaviest fish. Reducing this maximum out of

water size to 60 inches protects most of the mature population but still allows catch-and-release anglers to take a trophy picture of their catch. Fish less than 60 inches FL are light enough that they are not likely to be injured due to gravity.

- The most likely sources of injury come from anglers that attempt to 1) lift the fish off the ground by grabbing the gills or gill plates or by dangling them by their tail, or 2) drag fish over the ground or boat/pier surfaces. These handling restrictions are intended to limit the effects of rough handling on sturgeon survival. The Department will also need to write sturgeon handling guidelines that can be distributed online, at bait stores, and in the fishing regulations, as is done in Washington, Oregon, and British Columbia (e.g. https://www.env.gov.bc.ca/fw/docs/ws_guidelines.pdf)

II. Findings for the Existence of an Emergency

The Commission considered the following factors in determining that an emergency does exist at this time: 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.

The Magnitude of Potential Harm

Candidate species under CESA receive full protection while the status review is conducted, including complete closure of the white sturgeon recreational fishery. In June 2024, sturgeon fishing industry representatives from the Northern California Guides and Sportsmen's Association submitted a petition to the Commission seeking an exemption for sturgeon angling during candidacy. The petitioners describe the fishing industry as comprised of:

- 5 Commercial Passenger Fishing Vessels; combined annual sturgeon revenue of \$300,000
- 24 captains operating 6-pack vessels full time; combined annual revenue of \$1.2 million dollars. Six-pack vessels are small charter boats limited to a maximum of six passengers.
- 16 captains operating 6-pack vessels part time; combined annual revenue of \$300,000
- Approximately 45 charter/guide services with \$1.8 million in total revenues
- 10,000 to 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 revenue of \$1 million, including approximately 50 tackle stores

Department data show that Sturgeon Report Card sales averaged between 40,000 to 45,000 cards per year between 2013 (when fees were first charged) and 2022, the last full year before the HAB and emergency regulations. Sales in 2023 were approximately 35,000 cards but dropped significantly in 2024, with 14,975 cards sold as of July 9, 2024.

The Existence of a Crisis Situation

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 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. This is also substantially higher than guided sturgeon trips in California, which average \$200 to 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 Immediacy of the Need

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 sturgeon related revenue. These businesses have also already been significantly stressed by major closures and changes in other popular fisheries. The status review process will take at least 12 months to complete and the status of the fishery in the future 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 may result in the loss of fishing businesses and the fishing infrastructure that supports the sturgeon fishery. Some of these businesses will likely not return to the sector if an exemption for catch-and-release fishing is not expedited. This 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 go against the Department’s Recruit, Retain, Reactivate (“R3”) principles.

Whether the Anticipation of Harm Has a Basis Firmer than Simple Speculation

The anticipation of harm is based on financial data voluntarily supplied by sturgeon fishing industry representatives, the Department's evaluation of Sturgeon Report Card sales, and the Department's determination that a closure to sport fishing for white sturgeon during the CESA candidacy period will cause serious economic harm to business that rely on the white sturgeon fishery and to the Department from loss of license and report card sales. While the industry-provided data does inherently contain some uncertainty of the extent of the harm, the bases outlined here and discussed throughout this emergency statement demonstrate a reasonable certainty of the harm occurring without action by the Commission.

III. Impact of Regulatory Action

The potential for significant statewide adverse economic impacts that might result from the proposed regulatory action has been assessed, and the following initial determinations relative to the required statutory categories have been made:

(a) Costs or Savings to State Agencies or Costs/Savings in Federal Funding to the State

None. No costs or savings to state agencies or costs/savings in federal funding to the state are anticipated. The Department's existing level of monitoring and enforcement activities is expected to be unchanged by this emergency action. However, if while under candidacy review, the Commission votes to allow for a catch-and-release fishery (under section 2084), then the Department anticipates a smaller decline in White Sturgeon Report Cards sales revenue than would have occurred under a complete harvest and catch-and-release prohibition. The Department's 2023 survey found that about 17 to 18% fished sturgeon for consumption, while the majority (~70%) stated their goal is catch-and-release fishing. A conservative estimate would be 18% fewer report cards sold amounting to a drop in revenue of approximately -\$20,000 in fiscal year 2024-2025. See the STD399 and Addendum for more explanation.

(b) Nondiscretionary Costs/Savings to Local Agencies

None.

(c) Programs Mandated on Local Agencies or School Districts

None.

(d) Costs Imposed on Any Local Agency or School District that is Required to be Reimbursed Under Part 7 (commencing with Section 17500) of Division 4, Government Code

None.

(e) Effect on Housing Costs

None.

IV. 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.
- 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 at <https://fgc.ca.gov/Regulations/2023-New-and-Proposed#WS-E>
- 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 at <https://spo.nmfs.noaa.gov/sites/default/files/pdf-content/1996/944/chapman.pdf>
- Danos, A., J. DuBois, R. Baxter, J. T. Kelly, and M. L. Gingras. 2019. White sturgeon, *Acipenser transmontanus*, Enhanced Status Report. California Department of Fish and Wildlife. Available at <https://marinespecies.wildlife.ca.gov/white-sturgeon/>
- Fish, M. A. 2010. White sturgeon Year-Class Index for the San Francisco Estuary and its Relation to Delta Outflow. *IEP Newsletter* 23(2):80–84. Available at <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentId=26542>
- Fisheries and Oceans Canada. 2024. Results of the British Columbia freshwater recreational fishing survey, 2022. Web infographic. Available at <https://www.pac.dfo-mpo.gc.ca/analyses-econom-analysis/analyses/rec-fresh-douce-2022-eng.html#sturgeon>
- 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.
- Jackson, Z. J., J. J. Gruber, and J. P. Van Eenennaam. 2015. White sturgeon Spawning in the San Joaquin River, California, and Effects of Water Management. *Journal of Fish and Wildlife Management* 7(1):171–180. Available at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/petitioners_exhibit/dwr/part2/DWR-1122%20Jackson_et_al_2016_white_sturgeon_spawning_SJR.pdf
- 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.

V. 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 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 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.

VI. Authority and Reference

Section 5.78

Authority cited: Sections 200, 205, 265, 275, 399, and 2084, Fish and Game Code.
Reference: Sections 110, 200, 205, 265, and 2084 Fish and Game Code.

Section 27.93

Authority: Sections 200, 202, 205, 220, 265, 399, and 2084 Fish and Game Code.
Reference: Sections 200, 205, 206, 265, and 2084 Fish and Game Code.

VII. Fish and Game Code Section 399 Finding

Pursuant to Section 399 of the Fish and Game Code, the Commission finds that the adoption of this regulation is necessary for the immediate preservation of the public peace, health and safety, or general welfare.

Informative Digest/Policy Statement Overview

White sturgeon (*Acipenser transmontanus*) is an anadromous species of fish that resides primarily in the San Francisco Bay Delta (SF Bay) and migrates as adults into the major rivers of the Central Valley to spawn. White sturgeon are long lived, potentially in excess of 100 years, with most reaching maturity by approximately 14 to 19 years, spawning every two to four years once mature. Successful recruitment of juveniles is infrequent, occurring approximately every six to seven years, highly correlated with above normal water years. Considerable declines in both relative and absolute abundance have been measured by the Department. The most recent Department estimate was approximately 33,000 fish.

White sturgeon have been the focus of a recreational fishery since 1954. Until recently, recreational anglers could keep one white sturgeon per day, and a combined total of three per year with a slot limit of 40 and 60 inches (in.) fork length (FL; 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. 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.

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captains, and angling-associated businesses. Industry representatives requested an exemption to permit a recreational sturgeon fishery that includes harvest to continue to operate.

Protections under CESA during candidacy exist to protect the species until a comprehensive, peer-reviewed status review can be completed and informed decisions made about how to manage the species. While the best available science suggests that non-lethal take via a catch-and-release fishery would not harm the long-term viability of white sturgeon in California, the Department does not believe the evidence supports any level of harvest during candidacy.

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- Removal of all language related to harvest, including bag limits, annual limits, and size limits.
- Change of the fishing season. Prior to candidacy, white sturgeon could be fished all year in the San Francisco Estuary and the Delta. As per the emergency regulations adopted on 11/16/2023, fishing was not permitted between January 1 and May 31 on the Sacramento River (upstream of the Hwy 50 bridge) and the San Joaquin River (upstream of the I-5 bridge) in order to protect the migration path and spawning habitat of white sturgeon. Additional existing regional closures also remained in effect (e.g. Yolo Bypass, North Coast District, Special Sierra and Valley District Sturgeon Closure).
 - The proposed regulations would institute a fishing season of October 1 through June 30 in all waters downstream of the confluence of the Feather River on the Sacramento River and the I-5 Bridge on the San Joaquin River. No sturgeon fishing would be permitted in these areas between July 1 and September 30. These months experience the warmest air and water temperatures and pose the greatest risk of physiological stress to fish caught, played, and handled by anglers during that time. These months are also the least popular sturgeon fishing months based on both CDFW Sturgeon Report Card data and data collected by the fishing industry.
 - Fishing upstream of the confluence of the Feather River (Sacramento River) and the I-5 bridge (San Joaquin River) would be restricted to October 1 through

December 31 to protect migration and spawning. This action expands the existing closure to include the warm summer months, as described above.

- Fishing for sturgeon would not be permitted in tributaries of the Sacramento and San Joaquin rivers (including tributaries of those tributaries). The only reason white sturgeon enter these smaller rivers is to spawn and they do not reside there unless stranded by dropping flows. Federal Endangered Species Act (ESA) protected southern Distinct Population Segment (DPS) Green Sturgeon also enter these rivers and routinely stay over the summer or longer. Further, sturgeon in these rivers are restricted to small, deep holes and are more easily targeted by anglers. Any sturgeon present in these rivers would either be a spawning migrant or a protected green sturgeon and should not be the target of anglers.
- Addition of language describing permitted handling:
 - Due to their mouth shape and foraging habits, sturgeon rarely swallow tackle or suffer the types of deep hooking injuries that are common in other species. The most significant potential source of injury for sturgeon in a catch-and-release fishery will be related to how the fish are handled after catch. Sturgeon lack a rigid, bony skeleton and their skeletal frame mostly consists of cartilage with the exception of some heavy bones in the skull and pectoral girdle. Their structure is not evolved to support their heavy mass against gravity when in air and some care must be taken when handling them.
 - Prior to candidacy, the regulations required that fish greater than 68 inch FL could not be taken out of the water and had to be released immediately. This limit was set when the legal size for harvest was up to 60 inches FL and was designed to protect the largest, heaviest fish. Reducing this maximum out of water size to 60 inches protects most of the mature population but still allows catch-and-release anglers to take a trophy picture of their catch. Fish less than 60 inches FL are light enough that they are not likely to be injured due to gravity.
 - The most likely sources of injury come from anglers that attempt to 1) lift the fish off the ground by grabbing the gills or gill plates or by dangling them by their tail, or 2) drag fish over the ground or boat/pier surfaces. These handling restrictions are intended to limit the effects of rough handling on sturgeon survival. The Department will also need to write sturgeon handling guidelines that can be distributed online, at bait stores, and in the fishing regulations, as is done in Washington, Oregon, and British Columbia (e.g. https://www.env.gov.bc.ca/fw/docs/ws_guidelines.pdf)

Benefits of the Regulation

The status of the existing white sturgeon population and the impacts of recent Harmful Algal Blooms are currently not known and will be the subject of a comprehensive species status review. Maintaining catch-and-release angling during this period will protect the remaining population while the status review is completed while still permitting angling and business opportunities. Evidence from successful recreational fisheries on other rivers indicate that the

species tolerates catch-and-release angling well and can coexist with a financially lucrative fishery.

Consistency and Compatibility with Existing Regulations

Article IV, Section 20 of the State Constitution specifies that the Legislature may delegate to Commission such powers relating to the protection and propagation of fish and game as the Legislature sees fit. The Legislature has delegated to the Commission the power to regulate sport fishing in waters of the state (Fish and Game Code sections 200, 205, 315, 316.5 and 2084). The Commission has reviewed its own regulations and finds that the proposed regulations are consistent with other recreational fishing regulations in Title 14, CCR, and therefore finds that the proposed regulations are neither inconsistent nor incompatible with existing state regulations. The Commission has searched the California Code of Regulations and finds no other state agency regulations pertaining to temporarily prohibiting harvest of white sturgeon.