CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REPORT ON THE 2023 PRESEASON MANAGEMENT SCHEDULE

The California Department of Fish and Wildlife (CDFW) is concerned with a number of recent trends observed by our agency with regard to Sacramento River Fall Chinook. In light of these concerns, CDFW requests that the Pacific Fishery Management Council (Council) consider recommending new and additional measures in the upcoming 2023 annual fishery management and season-setting process, to provide better assurance that the fishery and stock will perform as the forecast and harvest models suggest. In recent years, the California commercial ocean salmon fishery has outperformed expectations significantly, while the in-river fishery has fared poorly. Furthermore, the escapement - used to estimate river and hatchery adult returns to the Central Valley - has repeatedly fallen below projections.

Persistent drought conditions in California are having significant impacts on Sacramento River Fall Run Chinook stocks. Migration into the river the last three years has been delayed, resulting in a very poor inland fishery. So far, the observed 2022 inland recreational harvest is about 50% or less of what it was at this time last year, despite a somewhat optimistic 2022 pre-season inland harvest forecast of over 32,000 fish.

At the end of 2021, under 15,000 fish were estimated to have been landed in the inland fishery, despite a 2021 pre-season forecast of 21,800 fish. In 2020, in-river fishery performance was even worse, with less than 40% of the 41,148-fish forecast landed. The current catch rates indicate the inland fishery will severely underperform again in 2022, perhaps even falling short of the 2020 catch estimate.

There is also documented widespread elevated pre-spawn mortality of Chinook Salmon throughout the valley. Observations have been made in the Sacramento River downstream of Colusa, the lower American River near Sacramento, the lower Mokelumne River below the Cosumnes River, and the lower Feather rivers near the confluence with the Sacramento. The number of observations, though qualitative, are similar to previous drought years (2014 and 2015) and are more than double those observed in 2021. The CDFW Fish Health Laboratory has also verified that severe *columnaris* disease is contributing to some of the mortalities observed. The prolonged period of high-water temperatures likely played a significant role in disease development and progression.

The conservation objective for Sacramento Fall Run Chinook, as described in the Pacific Coast Salmon Fishery Management Plan, sets an escapement goal range of 122,000 to 180,000 adult spawners ‘to provide adequate escapement of natural and hatchery production for Sacramento and San Joaquin fall and late-fall stocks based on habitat conditions.’ Earlier this year, under Agenda item D.3.d., Supplemental CDFW Report 1 (https://www.pcouncil.org/documents/2022/03/d-3-d-supplemental-cdfw-report-1.pdf/) CDFW recommended that the Council target the maximum of this escapement goal range (180,000 adult spawners), for a number of reasons. The stock was declared overfished by NOAA

Fisheries in 2018 due to chronically low spawner abundance and was only recently declared rebuilt last year. Yet in its first year as a rebuilt stock, 2021 escapement was estimated at 104,483 adult spawners; below the 122,000-adult fish minimum level of the escapement goal range, and well below the projected return of 133,900 adults. And significantly, over a longer time period (2006-2021), returns have failed to meet the minimum of the goal range in nine of the last 16 years.

Despite the Council ultimately targeting an escapement even above the maximum of the goal range in its spring 2022 pre-season planning process (198,694 adult spawners), indications suggest that once again, both inland fishery and escapement projections will not to be attained by year's end; and in fact are likely to fall well short of expectations.

In addition to the higher escapement target, in response to NMFS' guidance, the Council supported adding additional precaution to the Klamath Ocean Harvest Model outputs by targeting an impact rate cap of 10%, rather than the ESA-required 16%, to account for continued model underperformance. The adjustment resulted in significantly shorter commercial fishing seasons off California compared to 2021, especially in the northern part of the state. However, despite the shorter seasons and higher projected escapement identified in the Final Preferred Alternative, the preliminary California commercial chinook catch, meaning the landings of all chinook stocks (e.g., not limited to Sacramento River Fall Chinook), for 2022 is over 213,000 fish – which is even higher than the 2021 total of 201,419. Once again, this preliminary data from the 2022 California commercial ocean salmon fishery suggest that landings have outperformed expectations in 2022, with totals to date coming in at roughly 250% of the pre-season projection. This follows an exceptional 2021 commercial season, where the fishery landed 303% of the pre-season projection. By comparison, the recreational ocean salmon fishery has performed about as expected in both 2021 and 2022.

CDFW appreciates the work of the Council to undertake the annual salmon management process and recognizes the great value the Council process offers to bring together the fishing industries, agencies, tribes and non-governmental organizations to comprehensively consider the latest and best available science and data in making management recommendations. The process serves as an excellent forum in which varying perspectives are considered, and decisions are made with some expectation that projected stock abundance and projections of fishery performance will be realized year over year.

While CDFW acknowledges the modeling adjustments and actions taken this spring to curtail 2022 commercial fishery impacts and improve fishery escapement and in-river fishery performance, these actions appear to have fallen short. As a result, CDFW requests that the Council recommend direct measures to curtail the commercial fishery in 2023 and beyond as necessary, to ensure that catches do not continue to substantially exceed projections. Catch controls warranting consideration might include vessel-based commercial fishery landing limits, pre-defined catch triggers, or other measures to be implemented both pre- and inseason, in order to ensure commercial fishery performance keeps within expectations. While there is no guarantee that constraining the commercial fishery will produce the additional river returns needed to support and restore the inland fisheries or escapement, such actions would have only a beneficial effect on these elements of the Sacramental River Fall Run Chinook life cycle.

Although stock forecast information will not be available until February 2023, CDFW offers this recommendation at the Council's November 2022 meeting under the pre-season management schedule agenda item, in order to allow for adequate time in the pre-season meetings and process to develop and implement new commercial fishery measures for effectiveness in the 2023 season.