

CDFW REPORT ON 2019-2020 MANAGEMENT MEASURES: SALMON INCIDENTAL TAKE STATEMENT AND MANAGEMENT MEASURES

CDFW offers the following comments and recommendations for salmon bycatch management measures (MM) south of 42° N. lat., an area representing the greatest uncertainty both in terms of total numbers of salmon bycatch and salmon bycatch stock composition. Bycatch occurring off California may contain ESA-listed salmon stocks, most of which have limited information available to inform their respective stock status. CDFW supports the [GMTs report](#) on salmon bycatch MMs, and offers two additional Preliminary Preferred Alternative (PPA) recommendations for the area south of 42° N. lat. with the intent to:

1. Provide protections for ESA-listed salmon in a geographic area where stock contribution to the bycatch is most uncertain; and,
2. Slow salmon bycatch in areas where the risk of attaining the sector threshold, and potentially the reserve, is high.

CDFW's concern is that south of 42° N. lat., depth-based closures alone may not be adequate to provide necessary protections for sensitive salmon stocks and maintain overall bycatch within the sector-specific thresholds. While depth contour closures represent areas of highest bycatch rates, they do not reflect the location of the majority of the bycatch in terms of numbers of fish, which are evaluated under the terms of the 2017 Biological Opinion (BO) Incidental Take Statement (ITS). Areas of low bycatch *rates* may hide high bycatch *numbers* when and where the whiting catch is also high, thus complicating the timing and placement of effective Bycatch Reduction Areas.

Temporal and geographic sub-caps have been established for use in the 2018 trawl gear Exempted Fishing Permit (EFP) to ensure Chinook bycatch does not exceed a certain level in specified times or areas. An 80-fish sub cap exists in the 2018 EFP specifically for activity off California. CDFW supports this approach and for consistency, recommends use of California sub caps as a salmon bycatch MM in 2019-2020 as well. CDFW also notes that in 2017, the first year of the EFP, NMFS did not authorize any EFP fishing south of 42 degrees in response to the extremely low Klamath River Fall Chinook forecast.

Like the EFP sub-cap, the purpose of California sub-caps would be to establish a reasonable number of salmon caught as bycatch in the whiting and non-whiting trawl fisheries off California to ensure the goals and intent of ESA protections under the ITS are met in the face of revitalized and potentially expanding whiting and non-whiting trawl fisheries. Additionally, the final preferred actions made under the Essential Fish Habitat and Rockfish Conservation Areas (RCA)

agenda item may modify fishing behavior and resulting salmon bycatch. The proposed sub-caps are not to be viewed as harvest expectations, nor should they be considered an allocation.

GMT Issue B: Whiting sector mitigation measures

The ITS states that whiting fleet distribution must be considered when developing MMs to avoid exceedance of the bycatch threshold. Page 2-183 of the 2017 BO states, “In particular, bycatch and bycatch rates are anticipated to be higher and more variable when the whiting fleet fishes under a Southern distribution [as defined by the 2012-2015 fleet distribution described in Figure 2-11 of the 2017 BO]; the fleet therefore has a substantial risk of exceeding the allowable take limits without effective management measures.” Specifically, the BO concluded that if the whiting fleet was fishing under a Southern distribution, there is a 50 percent chance that the threshold of 11,000 would be exceeded (Table 2-49 and page 2-135). Holding a southerly-distributed whiting fleets’ bycatch at a lower threshold would reduce the probability of accessing the Reserve, which is limited to three out of five consecutive years before triggering re-consultation.

On average, listed salmon ESUs contributed 5 percent or less of the Chinook bycatch in the whiting fleets (2017 BO, p. 2-112); however, upwards of 28 percent of the Chinook bycatch represented Klamath/Trinity Chinook, a stock under evaluation for listing. The 2017 BO goes on to describe the uncertainty around stock composition of the whiting bycatch, stating, “Significant uncertainty exists in the magnitude of ESU-specific impacts for fisheries in locations or time periods outside the available data. Areas south of 42° N. latitude and during the January-to-May period have particularly limited information” (p. 2-123). The southern-most mean latitude of stock composition data informing the bycatch composition linear regression model was at 43°55’ N. lat., well north of California waters.

To account for changes in whiting fleet distribution and potential impacts on sensitive salmon stocks, **CDFW offers the following PPA:**

Implement a 5,000 Chinook salmon bycatch sub-cap for all whiting sectors south of 42° N. lat. Through automatic action, upon attainment, or projected attainment, of the 5,000 Chinook sub-cap, all whiting sectors will temporarily close south of 42° N. lat. This closure would prompt Council evaluation at the next meeting under the inseason agenda item at the next regularly scheduled meeting.

The sub-cap value of 5,000 Chinook represents half of the mean modeled salmon bycatch (9,997) under the Southern distribution scenario for average whiting attainment (2017 BO, Table 2-49 section 56d) and is intended to allow for minimal interruption to whiting fisheries while acknowledging the uncertainty in fleet distribution and expected salmon stock contribution to the bycatch.

Different California sub-cap thresholds may be considered. CDFW's intent is to seek additional information to inform the most appropriate sub-cap value between now and the June meeting. CDFW also seeks industry, public and other agency input on this value and the proposed automatic closure and potential re-opening mechanism between now and the June meeting.

GMT Issue C: Mitigation Measures for Non-Whiting Trawl

As described in the [March 2018 GMT Report 1](#), substantial uncertainty also surrounds the future of re-emerging mid-water and bottom trawl fisheries. Appropriate MMs for a revitalized mid-water trawl fishery are difficult to determine due to a lack of available data, and proposed changes to the RCA and block-area closures will have uncertain effects on bottom trawl fishing effort and location. The GMT noted, "There is insufficient data from 2011-2016 to investigate regional bycatch patterns for non-whiting midwater vessels since there were few hauls (482), and nearly all (90 percent) were north of Cape Falcon." However, historical mid-water trawl data suggests high salmon bycatch rates have been observed in the Eureka management area inside the 100 fathom contour (2017 BO, p. 1-13).

Further, distributing potential bycatch among diverse geographic areas may afford additional protections where stock contribution is uncertain. Currently, "Genetic data are not yet available for any sectors of the non-whiting fishery, and CWT recoveries are insufficient, given the low salmon bycatch, to estimate stock composition independently for those sectors" (2017 BO, p. 2-123).

To account for bycatch volume and stock contribution uncertainty, **CDFW offers the following PPA:**

Implement a 2,000 Chinook salmon bycatch sub-cap for all non-whiting trawl sectors south of 42° N. lat. Through automatic action, upon attainment, or projected attainment, of the 2,000 Chinook salmon bycatch sub-cap, all non-whiting trawl sectors will temporarily close south of 42° N. lat. This closure would prompt Council evaluation at the next meeting under the inseason agenda item at the next regularly scheduled meeting.

The sub-cap value of 2,000 Chinook represents half of the mean modeled salmon bycatch (3,858 Chinook, 2017 BO, Table 2-52) and is intended to allow for minimal interruption to non-whiting fisheries and seamless commercial fixed-gear and recreational fisheries while acknowledging the uncertainty in participation and volume of salmon bycatch, and expected salmon stock contribution to the bycatch.

Similar to the proposed whiting fleet sub-cap described above, different California sub-cap thresholds for non-whiting trawl fisheries may be considered. CDFW's intent is to seek additional

information to inform the most appropriate sub-cap value between now and the June meeting. CDFW also seeks industry, public and other agency input on this value and the proposed automatic closure and potential re-opening mechanism between now and the June meeting.