

NATIONAL MARINE FISHERIES SERVICE (NMFS) REPORT ON DRIFT GILLNET
(DGN) FISHERY HARD CAPS

This report summarizes some key findings from the economic analyses underpinning the final hard caps rule for the drift gillnet (DGN) fleet ([85 FR 7246](#)), which was implemented on February 7, 2020, without change from the proposed rule ([81 FR 70660](#)). This report also discusses potential modifications to the current regulations to reduce costs.

In a letter to the Council dated June 9, 2017 ([Agenda Item H.1.a, Supplemental NMFS Report 2, June 2017](#)), NMFS described the reasons it initially withdrew the proposed rule to implement hard caps. At that time, NMFS determined that the proposed hard cap regulations would have provided minor conservation benefits to target, non-target, and protected species, and would create significant short-term economic hardship for DGN fishery participants ([Agenda Item H.1.a, Supplemental NMFS Report 3](#)). However, to satisfy a court-ordered deadline, NMFS implemented the hard caps regulations as originally proposed, as it did not have time to consult with the Council on potential revisions to the rule to address its significant costs to those affected by the regulations. NMFS remains concerned about the potential for the regulations to impose significant costs on the affected entities. These concerns pertain to Magnuson-Stevens Fishery Conservation and Management Act (MSA) National Standard 7 and to impacts on small businesses as defined under the Regulatory Flexibility Act (RFA). All DGN fishery participants affected by hard caps qualify as small businesses, given the small business size standard of \$11 million in annual gross receipts for all businesses primarily engaged in the commercial fishing industry (NAICS 11411) (80 FR 81194). For these reasons, NMFS requested public comments on the final regulations and potential revisions to those regulations. The 45-day public comment period closed on March 23, 2020 (see Appendix A for public comments submitted).

NMFS encourages the Council to reevaluate the intended purpose of the hard caps regulations with respect to RFA requirements. NMFS suggests the Council consider alternatives that would accomplish intended conservation goals while minimizing significant negative impacts to small fishing businesses resulting from a closure period when DGN fishing would be prohibited for up to two fishing seasons if the caps are met or exceeded. Additionally, the Council should consider whether the conservation benefits of hard caps warrant the costs to affected entities, and potentially reconsider the purpose and need for the proposed action. To assist, we provide more detail below on an economic analysis of the hard caps regulations as related to requirements of the RFA.

Typically, the first step of an RFA analysis is consideration of any disproportionate impacts to small versus large entities or businesses. With respect to hard caps, because all of the participants of the DGN fleet are small businesses, there were no disproportionate impacts. However, all of these small businesses were subject to the regulations, and NMFS determined a substantial number of small businesses would be impacted given that a closure period would affect all active participants in the fleet.

The next step is to determine if impacts to a substantial number of small entities are likely to be significantly adverse. As a measure of significance, NMFS considers the degree to which adverse

economic impacts will require the affected entities to seek alternative forms of employment or income. Initially, NMFS considered the costs to these small businesses on a 15-year period, as that was how often the DGN fleet was expected to meet or exceed a hard cap and close, based on historical observer data. This draft economic analysis conveyed expected “long-term direct effects” of closure periods on the economic and conservation performance of the current fleet and a conclusion that those effects were not significant relative to expected revenues during a 15-year period. The analysis was premised on three key assumptions: (1) that recent data on fishery operations would remain representative of the economic performance and protected species interaction risk in the fishery following the imposition of hard caps, (2) that the fishery participants could rely on other fishing opportunities to generate income during closure periods, and (3) that the fishery would reopen as soon as possible with the same number of participants if it closed due to reaching a hard cap.

Public response to the proposed regulations challenged the key assumptions and conclusion in the draft analysis and asserted that fishery participants were unlikely to withstand closure periods. Before finalizing its analysis, NMFS evaluated “short-term effects” by taking a closer look at the dependence of the affected small businesses on DGN fishing, as well as permit holdings for other fisheries as an alternate source of income. This analysis showed that the majority of the fleet relied on DGN fishing for more than half of their annual revenue and that DGN accounted for all landings and revenues by DGN vessels during the months of November through January. Moreover, fishing permits already held by those individuals most likely to be affected by a DGN closure shows limited opportunity to offset economic losses, especially during November through January, when the majority of DGN landings occur. Therefore, NMFS concluded that DGN participants would need to seek alternative sources of income or obtain additional fishing permits to offset significant economic losses during closure periods (see [Final Regulatory Flexibility Analysis and Regulatory Impact Review](#)).

When a proposed action is anticipated to impose significant adverse impacts on a substantial number of small entities under the RFA, the supporting analysis should also contain a description of alternatives that can accomplish the stated objectives while minimizing any significant economic impact on small entities. In the case of hard caps, the Council’s range of alternatives did not include viable alternatives that achieve the stated objectives while minimizing costs to small businesses in comparison to those expected under the preferred alternative. This scenario was at odds with the Council’s stated purpose: “to conserve non-target species and further reduce bycatch, including incidental take of Endangered Species Act (ESA)-listed species and marine mammals, in the DGN fishery below levels currently permitted by applicable law *while maintaining or enhancing an economically viable DGN fishery*” ([Agenda Item G.2.a NMFS Report 1, September 2015](#)).

Given the state of California’s DGN transition program and the Council’s final preferred alternative (FPA) for authorizing deep-set buoy gear (DSBG), one question likely to arise is whether an economic impact analysis of the existing hard caps regulations, if completed today, would result in different conclusions due to fewer fishermen remaining in the pool of affected entities and the potential for DGN fishermen to fish with DSBG. NMFS believes this is not the case, as all remaining DGN fishery participants would be adversely affected during a closure resulting from the hard cap regulations. Evaluation of potential economic opportunity for DGN

fishermen associated with the authorization of DSBG is constrained by the relatively low amount of DSBG effort to date, and the fact that all DSBG effort has been carried out under experimental exempted fishing permits (EFPs). Preliminary evidence suggests that DSBG fishing is not as profitable on a day-by-day basis as DGN. For example, our preliminary analysis suggests that revenue per vessel per day of fishing may be, on average, 35% lower for vessels fishing under DSBG EFPs when compared to DGN gear.¹ However, this analysis did not include a comparison of costs of fishing with the gear types.

Additionally, until a DSBG permit program is authorized under the Highly Migratory Species Fisheries Management Plan, it may not be reasonable to assume that all fishermen unable to fish DGN gear due to a closure would be able to purchase new gear (~\$10,000-\$20,000) and obtain authorization to fish DSBG under an EFP as a substitute. Further, because the Council's FPA for authorizing DSBG includes a ramp-up period for the limited entry permit program, it may not be reasonable to assume that all DGN fishermen would be able to obtain a DSBG limited entry permit in the initial years of authorization, when the number of available limited entry permits is more constrained.

Given the above concerns and considerations, NMFS suggests the Council consider the best available science, data, and regulatory tools to evaluate an update to the purpose and need for conservation action, additional alternatives to consider, or both. When considering alternatives to minimize costs of hard cap regulations on small entities, the Council should consider reducing the impact of the closure period, more strongly correlating closure timing or area to intended conservation outcomes, or both. To reduce costs to small businesses, it is important to reduce impacts of the closure period. This could be done several ways: reduce the extent of the closure in terms of duration, area, or entities impacted, or a combination of those factors. Revisiting alternatives for hard caps regulations would benefit from an updated analysis of recent dependency of participants on revenue from DGN relative to substitutes (potentially including DSBG). Drawing a clearer connection to the intended benefits of regulatory action imposed when hard caps are met or exceeded could improve the balance of economic costs and conservation benefits. In addition to reconsidering the significant impacts of the closure period, the Council could also consider other modifications that may further reduce costs. For example:

- The Council could take habitat utilization into account when defining closures. The Council might consider closing DGN fishing in areas or times that represent higher conservation value for species of concern or for which hard caps are met or exceeded.
- Alternatives with slightly higher caps may reduce the probability of reaching a cap and thereby reduce anticipated economic impacts overall, in exchange for smaller conservation benefits, while still incentivizing bycatch avoidance behavior.
- Alternatives with adjustable caps that scale to local abundance of species of concern could help shield fishermen from the impacts of overly constraining caps. For example, if loggerhead sea turtles are concentrated in common fishing areas or if the population size

¹ We compared revenues (in 2018 dollars) per day of fishing effort for the DGN and DSBG fisheries from 2015 through 2018. Revenues from a day of DSBG had a profitability ratio of between 41 percent and 89 percent relative to DGN during this time period, with an overall average profitability ratio of 65 percent. We note that the viability of both gear types can vary significantly both within and between fishing seasons due to a number of factors including weather conditions, regulatory time and area closures, potential spatial crowding of productive fishing areas, market demand for domestic swordfish product, and the highly migratory nature of swordfish stocks.

increases, an adjustable cap may shift upward to reflect the potential for increased interactions and closure risks.

- Alternatives that calibrate species cap levels to achieve a longer-term interaction rate objective for those populations could enhance the conservation benefit of hard cap regulations. Caps designed in this manner would not be subject to random variation over one or two years of fishing effort. Such an approach is analogous to marine mammal regulation using the potential biological removal standard under the Marine Mammal Protection Act (MMPA).

APPENDIX A: Public Comments on Hard Caps Final Rule

NMFS received four comments on the final rule to implement hard caps for the DGN fishery. One comment supported the final rule, while three opposed it.

The comment in support of the final rule claims that NMFS has authority under the MSA to implement hard caps that impose more stringent requirements than those under ESA and MMPA, that the final rule is consistent with the Council's stated purpose and need and with MSA National Standards, and that NMFS had ample opportunity to consult with the Council on changes to the regulations prior to publishing the final rule. The commenters also reject the notion of a "market transfer" effect of bycatch from domestic to international fisheries, and urge NMFS to implement additional monitoring requirements for the DGN fishery before considering revisions to the hard caps regulations.

One comment from the Marine Mammal Commission notes several issues which were described in an earlier letter in opposition to the proposed rule:

1. NMFS did not explain why management of the impacts of the DGN fishery on fin, humpback, and sperm whales under the ESA and MMPA require enhancement under the MSA to provide the necessary level of protection.
2. NMFS did not explain why a closure of the fishery would best be implemented through MSA regulations rather than through re-initiation of Section 7 consultation and/or amendment of the applicable MMPA permit.
3. NMFS did not provide justification for its conclusions that 1) section 7 consultation and the take reduction team (TRT) process have provided inadequate protection to listed species, and 2) a more stringent response to potentially excessive bycatch is required or is the best option for protecting certain fin, humpback, and sperm whale stocks.
4. NMFS did not adequately consider the proposed fishery closures in light of the modest improvement in bycatch reduction likely to be achieved under the proposed rule compared to those options available under section 7 consultation and the TRT process.
5. NMFS did not design the hard caps based on the best available science, or make them sufficiently precautionary and adaptive.
6. NMFS did not provide justification for implementing DGN fishery closures to protect stocks experiencing sustainable take levels in that fishery.

The second comment opposing the rule alleges that the regulations violate MSA National Standards 2, 7, and "most likely 8." This comment describes devastating impacts to the fishery resulting from a two-year closure along with minimal benefits to protected species, and urges the Council to revisit the regulations.

The third comment in opposition to the final rule alleges that the regulations violate MSA National Standards 1, 2, 8, and 9. It also states that the final rule undermines the established TRT process and threatens a fishery which contributes a valuable source of domestic seafood to U.S. consumer markets. This comment requests that NMFS withdraw the final rule and instead pursue "scientifically based management" of the fishery.