



November 15, 2021

Clerks' Office
California Air Resources Board
1001 I Street Sacramento, California 95814
<https://www.arb.ca.gov/lispub/comm/bclist.php>

SUBJECT: CHC2021: Official Comments Regarding the Amended Commercial Harbor Craft Regulation on Behalf of California's Commercial Passenger Fishing Vessel Owners and Operators

To Whom It May Concern:

This letter is presented by both the Sportfishing Association of California (SAC) and the Golden Gate Fisherman's Association (GGFA), whose combined efforts represent Commercial Passenger Fishing Vessels (CPFV's), both inspected and uninspected, throughout the State of California. The intent of this letter is to:

- Provide some background and knowledge of California's CPFV's operations (both landside and water related), legal licensing requirements and industry challenges;
- Identify the general issues with the proposed amendments to the Commercial Harbor Craft (CHC) regulation, as it relates to California's CPFV's;
- Provide specific comments on the proposed rule, including on the technical and financial analyses;
- List informational and data requests for which the California Air Resources Board (CARB) did not provide answers in its rulemaking materials, but which are critical to the understanding of the rule impacts; and
- Propose modifications to the current amendments to the CHC as well as an alternative to the rule provisions for CPFVs.

EXECUTIVE SUMMARY - QUESTIONS AND ANSWERS PERTAINING TO COMMERCIAL PASSENGER SPORTFISHING VESSELS

Because a comprehensive economic and social justice study was not completed and accurate costs for vessel replacements were not obtained, the proposed rule and associated work product is based on faulty assumptions and fails to evaluate the economic impacts to the inspected CPFV fleet, impacts to equitable and affordable access to our oceans, ocean education, reduced reach of programs offered for Title 1 schools, at-risk individuals, veterans, and other groups served by non-profits and to state conservation funding. As detailed in this letter and supporting documents, the rule will lead to the gentrification of ocean access where only those of significant means can afford to access the vessels that may remain after implementation of the rule.

CPFVs are unique among harbor craft proposed for regulation under the rule and similar to Commercial Fishing in nearly all respects, including that they are family-operated small businesses. CARB has developed regulations that, if adopted, will destroy a lifetime of savings by devaluing vessels and businesses. The simple release of such an onerous proposed regulation has already affected potential sales of vessels from operators who had intended to sell their most valuable asset in order to retire.

It is evident by our interaction with CARB, and how the proposed rule was developed, that CARB has little understanding of maritime operations, the economics of ocean-dependent businesses, and our customers. The inherent bias is displayed by CARB shrugging off the report they commissioned from the Cal Maritime Academy that raised the same fitment and safety issues between Commercial Fishing Vessels and CPFVs, then dismissively stating in the media that CPFVs can just raise ticket prices to buy new boats. Consequently, the proposed rule stands to make the sportfishing and whale watching industry obsolete, denying millions of Californians access to offshore fishing and marine life.

More specifically, CARB estimates that replacement CPFVs will cost approximately an average of \$2.1 million but provides no supporting information to establish how they came up with the estimate. In stark contrast to CARB's estimate, a landing obtained estimates from a reputable ship builder. Those estimates show that new boats constructed to comply with CARB's rules would cost \$4.6 million (Class 1) and \$5.7 million (Class 2). So, in contrast to CARB's estimated ticket price increases of 27% for single day trips or 19% for multiday trips, a Certified Public Account determined ticket prices would need to increase 201% or 97%, respectively, to simply breakeven with no profit. And these scenarios require that a vessel owner not lose a single customer due to price increases that would be double or triple current levels.

CARB conducted no analysis on the profile of anglers or those that go out to observe marine life, and somehow also neglected how cost increases would impact participation. We can assume from CARB's media statements and lack of analysis that they believe every participant is the equivalent of a bottomless-pocketed millionaire and that price has no impact because participants could afford their own boat anyway. In reality, as noted in the Southwick Associates Report, the USFWS found that 43% of anglers make less than \$75,000 per year, the same as the general population. The Recreational Boating and Fishing Foundation found that Hispanics are the fastest growing segment among anglers with a 55% increase in the last 10-years. This means those accessing the ocean through CPFVs are likely to be reflective of California's population and income levels generally.

Southwick Associates has examined price increases on anglers in over 40 states. They tested CARB's suggested price increases on data available from Oregon for a similarly priced license. The results show that even at CARB's artificially lower increases in ticket prices, participation would fall over 40%. Southwick Associates notes that California angler data is readily available to CARB to conduct a full analysis. The report also provides insight into loss of ocean access on lower income communities and the jobs, income, state taxes and conservation funding that will be reduced, areas which were also not properly analyzed by CARB.

However, CARB has designed the rule to place even greater economic burdens on CPFVs. Vessel owners would still be required to continue to upgrade their existing vessels, without the use of or with limited grant funding, while waiting for marine diesels and equipment that would meet the rule to be certified so new vessels can be built. While the industry has used grant funds to upgrade the majority of the fleet to Tier 2 engines, those will need to be replaced per the rule. If we assume 25% of the fleet will have upgraded to Tier 3 by the time the implementation of the rule in 2023, the industry will still need to spend over \$45 million to upgrade existing vessels.

CARB also would require submission of paperwork every two-years for a possibility of potentially granting extensions of vessel replacement to a maximum of 6 or 8 years depending on implementation dates. CARB indicates the first year of documentation preparation will average over \$61,000 per vessel to request an extension or over \$10 million combined for the fleet. If the cost of updating the paperwork every two years is 20% of the original cost, this would require over \$2 million of additional paperwork costs for the hope of each subsequent two-year extension with no guarantee the extension will be granted. All of these costs, in addition to a reasonable profit, would require additional ticket price increases to the doubling or tripling necessary to fund the new vessel.

This means that to meet the criteria in the proposed rule, the 174 inspected vessel owners would need to spend over \$900 million to maintain and then replace the existing fleet, far higher than estimated by CARB. However, there is no conceivable way boat owners can finance the construction of new vessels under CARB's regulatory regime, nor have any customers remaining on which to pass the costs. Boat owners will be run out of business within a few short years from now.

And because the incomes of ocean access participants – particularly in angling – reflect the income profile of the public generally, cost increases will have a noticeably graver impact on lower income populations in California that are disproportionately ethnic minorities. Given the most significant increases in anglers during the COVID pandemic were minorities and women, these groups would likely be the first to experience reductions in ocean access due to affordability.

The fleet also actively participates with creating ocean access opportunities for Title 1 school children, at-risk youth, veterans, the physically or mentally challenged, and others that otherwise would not be able to participate. Partners include schools, elected officials, nonprofit organizations, maritime museums, and ethnic organizations. As an example, Fish for Life has served over 175,000 youth along the southern coast of California by providing marine education and subsequent trips, which are often the children's' first experience on the ocean.

Although SB 617 requires CARB to consider nonmonetary factors such as fairness and social equity, CARB has made no effort to consider the impacts of the proposed rule in this regard. Equitable access to our oceans and the reach of the programs that promote social justice and opportunity will be devastated by the economic barriers the proposed rule creates. This is a substantial and critical failure on behalf of CARB.

While there are many flaws in the proposed rule and supporting documentation by CARB, including life, health and safety concerns noted by the Cal Maritime Academy and vessel owners, CARB makes egregious errors in its air modeling and lack of transparency. As of the submission of this letter, CARB still has not been able to provide full and accessible documentation on their modeling or data for analysis by vessel owners.

Further, CARB has not been responsive to input from vessel owners to improve the data CARB is using to justify the health benefits of the rule. For example, CARB has ignored the request to use the logbook data that captures the operational location of each vessel and is electronically logged daily by the captains under threat of criminal penalty. Instead, CARB uses a less accurate method to make assumptions about a few vessels and inaccurately extrapolates that profile to the fleet statewide. This leads CARB to assume vessels operate 83% of the time in regulated waters. However, using logbook data, a vessel owner determined they operated in regulated waters an average of only 16.28% of the time over a five-year period. This is also not a one boat outlier as over 50% of the inspected CPFV operate out of the same area in a similar manner.

To attempt to conceal this fatal error, CARB suggests that uninspected six-pack (6 passengers or fewer) boats should be combined with inspected CPFVs for looking at the emissions, impacts, and benefits from the rule. Certainly, there are more six-pack boats than inspected CPFVs, but most are not subject to the rule as they have gasoline engines. In fact, there are roughly 40 six-packs that operate full-time, and it is believed that most of those are gasoline engines. The balance of diesel six-packs would likely meet the low use thresholds; however, their emissions are still included in the CPFV category and skewing the data.

By combining vessels that operate differently, utilizing fatally flawed modeling, ignoring constructive input, and not providing transparent access to data, CARB is purposely overstating emissions contributions from inspected CPFVs to obfuscate that the proposed rule is not based on adequate information, and is not cost effective or technologically feasible. In addition, the rule creates significant barriers to social equity for ocean access. Because of these and other flaws, CARB cannot determine that the proposed rule creates a positive cost-benefit and that there are no reasonable alternatives. Especially, when using accurate operational data would demonstrate that nearly all CPFVs operate distant from CalEnviroScreen identified environmental justice communities

Analysis of the data CARB did provide (see Exhibit 1), even putting aside intrinsic overstatement, reveals it projects these rules will contribute daily emission reductions from CPFVs that will be less than a single ton of nitrogen oxide (NOx) emissions per day and will do so by requiring engines that do not yet exist and are technologically infeasible for these boats, yet will be economically fatal to an entire industry that caters to broadly diverse socioeconomic groups and that supports access by those in disadvantaged communities to sustainable fishing and enjoyment of the state's natural ocean resources. Meanwhile the Rules ignore the transport shipping fleet, so called "ocean going vessels," with roughly 150x more emissions than CPFVs currently contribute, even while they continue to clog our Ports and pollute our communities with excess emissions *due solely to congestion* in the South Coast basin alone in amounts equivalent to the entire state-wide contribution of CHCs and nearly 10x that of CPFVs.

The Legislature demands CARB's actions be prudent and balanced, through implementation of programs that are "practicable" (HSC §39650(k)) as well as "cost-effective, and technologically feasible" (HSC §43013(a)). CARB's proposed regulations fail that standard.

Tellingly, CARB's engine regulations have invited bipartisan opposition from State Legislators and a coalition of over 60 local, state and national organizations representing small business, tourism, marina/harbors, local agencies, retail, non-profits, boating and sportfishing. In addition, over 21,000 anglers signed a petition pleading with Governor Newsom to Save Our Boats.

The Board should reject the staff proposal and recombine Commercial Passenger Fishing Vessels with the compliance pathway identified in the rule for Commercial Fishing Vessels. This is the only approach that recognizes the lean economics of the industry, provides continuing access to grant funds to make further emissions reductions feasible, recognizes life, health and safety of passengers and crew, and does not impose undue economic barriers to equitable ocean access.

Table of Contents

I. BACKGROUND.....	6
II. GENERAL ISSUES WITH PROPOSED AMENDMENTS TO THE CHC	7
A. The Proposed CHC Regulations Disproportionately Target and Jeopardize Small, Family-Owned Businesses by Ignoring their Operational Characteristics Outside California and U.S. Territorial Waters	7
1. 225 Six-Pack Charters Powered with Gasoline Motors, Which Are Not Subject to The Proposed CHC Regulation	7
2. The CHC “Low Use” Exemption Threshold is Insufficient to Accommodate Transit Time to and from Port for Vessels Operating Almost Exclusively in International Waters.....	7
3. The CHC Regulations are Based on Erroneous Passenger Load Data by Including Part-Time Six-Pack Charter Operations.....	7
4. The Supporting Materials Relied Upon for the CHC Fail to Account Adequately for Unrelated Emissions Impacts in Heavy Sea-Going Traffic Waterways.....	8
5. The Proposed Rule-Making Fails to Differentiate its Data for the Multi-Function Operations of Some CPFV Vessels.....	8
6. The Proposed Regulations Unreasonably Ignore the Operational Characteristics and Difference in Coastal and (Far) Offshore Operations	8
B. CARB’s Economic Assumptions Regarding CPFV Operations are Fundamentally Flawed Leading to Unrealistic Conclusions that Mask the True Consequences to Their Businesses and the Opportunities of the Public to Access California’s Ocean Resources	9
C. The Opportunities for Vessel Owners to Access Funding Assistance to Meet the Economic Consequences of a Regulatory Scheme Whose Benefit is Disproportionately Imposed on a Relatively Tiny Number of Businesses Are Not Realistically Viable	10
D. CARB Dismissively Glosses Over the Conclusions of a California Maritime Academy Study It Commissioned Which Concluded the Requisite Engines are not Available for the Targeted Vessels and Would Create Severe Financial and Safety Challenges	12
E. Though the CPFV Fleet Supports and Has Pursued Rational Emissions Reduction Efforts, the Universal Concerns of the Industry Regarding These Particular Rules at this Particular Time Have Been Largely Ignored	13
F. CARB has Intentionally Engaged in Propaganda to Mislead the Public, Elected Officials and Stakeholders about the Contributions of Emissions from CPFVs and Suggested Dire Consequences for Scenarios Never Contemplated or up for Consideration by the Board.....	14
G. CARB Has Not Made the Necessary Information Available to Adequately Review the Alleged Emission and Health Impacts/Benefits from the Rule	15

III. TECHNICAL AND FINANCIAL ISSUES	17
A. Technical Analysis	17
1. By Improperly Combining Inspected Vessels with Six-Pack Charter Operations, including those with gas-powered engines, CARB has Misleadingly Conflated and Skewed the Data, While Refusing to Conduct or Provide More Meaningful and Insightful Information	17
2. By Using Combined Data and Analysis, CARB Has Prevented an Adequate and Accurate Assessment of CPFV Contributions to Emissions and Health Impacts	18
3. By Excluding Commercial Fishing Vessels, Which Have Eerily Similar Operational Characteristics, CARB Has Arbitrarily Targeted Commercial Passenger Fishing Vessels, Reducing the Benefits of the Rule While Capriciously Imposing Technologically Unavailable Burdens on a Very Small Segment of Vessels	19
4. CARB’s Reliance on the Two-Highest Polluted Communities for Detailed Modeling, Without Similarly Modeling the Communities Where Most of the CPFV’s Operate, Creates Unsupported or False Correlative Assumptions.	19
5. CARB Actively Ignored Available Vessel Logbook Information to Gather True Operational Data but Instead Relied on Incomplete and Insufficiently Representative AIS Data for Its Modeling and Risk Analysis.	20
6. CARB Admittedly Relied on Survey Data It Acknowledged was Flawed from Which it Made Unjustified Assumptions to Support its Position	20
7. CARB Failed to Account for Differences in Land-Based versus Maritime-Based Operations and Ignored Identified Safety Concerns Attendant to DPF Use While at Sea.	21
B. Financial Analysis	22
1. CARB Acknowledges the CHC Rules will Require Full Replacement for Many Vessels, But Vastly Understates Likely Replacement Costs	22
2. CARB Overstates the Resale Value of CPFV Vessels Forced Out of Operation by the Proposed CHC Rules	22
3. CARB’s Assumptions Understate the Fare Increases Required for Vessel Cost Recapture.....	22
4. The CHC Regulations Will Unfairly Create a Competitive Market Advantage for Gasoline-Powered CPFVs.....	23
5. CARB Failed to Assess the Market Impact of Competition from Mexico if CPFVs are Forced out of Business or Required to Absorb Anti-Competitive Regulatory Costs	23
6. The CHC Rules Fail to Account for the Near-Term Double Jeopardy Impact of California’s Announced Conversion to Zero Emissions by 2035 or 2045	23
7. The Cost Impact of Requiring Vessels to be Retired and Replaced will Lead to Many or Most of the CPFV Small Family Businesses to Close	23
8. The Value of Available “Time Extensions” are Overstated and Misleading	24

9. CARB Has Insufficiently Analyzed or Accounted for the Drastic Economic Impact on the Businesses and Communities that Support the CPFV Fleet	25
10. CARB Has Not Assessed and the Proposed CHC Regulations do not address the Likely Adverse Impact to Ocean Access for Marginalized Individuals and Groups... ..	25
11. CARB Has Not Accessed the Impact on Harbors, Marinas and Landings.....	26
IV. UNANSWERED QUESTIONS.....	26
A. CARB’s Public Communications and Stakeholder Outreach has been Inadequate	26
B. CARB’s Consultation with and Consideration of the Impact on Vessel Owners has not been Sufficient or Transparent.....	27
C. CARB’s Economic Analysis (SRIA) is Incomplete	27
D. The Time Extensions Available Under the Regulation are Insufficiently Defined and Could Prove Illusory as a Hedge Against Technological Unavailability and Economic Infeasibility.....	29
E. Fairness Mitigates Against Imposing the strict CHC regulations while the Economy is Still Emerging from a Generational Pandemic	29
F. It is Not Appropriate to Push Forward Regulations Which Require Installation of Unavailable Technology While Serious Questions About Safety and Feasibility Remain Unanswered.	30
G. It is Not Appropriate to Impose Regulations Requiring Costly Diesel Engine Upgrades Without Addressing the Relationship to and Context of Contemplated Zero Emissions Standards and a Reasonable Time Frame to Achieve a Capital Return on Upgrade Investments	30
H. CARB’s Analysis Ignores the Deleterious Impact on Coastal/Disadvantaged Communities that Rely on CPFV Vessels for Employment and Otherwise Unattainable Access to the Ocean and Its Resources Which Has Spurred Concerns and Broad Support for the CPFV Fleet Throughout the State	31
I. It is Illogical and Arbitrary to Separate CFVs from and Give them Far Less Onerous Treatment over the Smaller Similarly Situated CPFV Fleet.....	32
J. The CHC Rules are predicated on Health Benefits that are Disproportionately Isolated to Communities Where the Impact from CPFV Operations Are Minimal; Conversely the Impact of the Regulations Disproportionately Burdens CPFV Operations Where the Projected Benefits are Fractionally Attenuated.....	33
V. RECOMMENDATIONS	34
A. The Following General Considerations Should Guide Review of the Proposed Rule.....	34
B. SAC/GGFA’s Specific Proposal to CARB for the Contemplated CHC Rule	35

I. BACKGROUND

Of the 577 licensed CPFV's in the State of California, there are approximately 174 U.S. Coast Guard (USCG) inspected CPFV's (seven or more passengers) and 403 uninspected CPFV's (six or less passengers; six-pack). The majority of the inspected vessels and several of the uninspected are members of either SAC or GGFA. Of the 403 six-packs, 178 have diesel engines, while 225 are gasoline powered six-packs that are exempt from the rule.

CARB plans to regulate 352 vessels with this rule, including the 174 inspected CPFV and approximately 178 diesel-powered six-pack boats. However, since there is a low use exemption and only about 40 six-packs operate full-time and over half of those are believed to have gasoline powered engines, **the rule is effectively targeted at the 174 full-time CPFVs**. Full-time is defined as 50 or more days at sea as reported to California Department of Fish and Wildlife (CDFW). This means that the proposed rule would impose its most stringent and economically devastating requirements on the narrow segment of inspected CPFVs.

From a fisheries standpoint, both uninspected and inspected vessels are licensed by the CDFW as CPFV. From a tax perspective, the State of California implements the same sales and tax exemption structure for BOTH commercial fishing vessels and CPFV's. Both Commercial Fishing Vessels and CPFV's receive the same foundational commercial fishing permit, and many CPFVs will conduct commercial fishing activities from time to time. All water-related issues are both inherited and solved in cohesion among our industry, with Commercial Fishing Vessel owners working side by side with CPFV owners since the boats and the issues affecting them are similar.

From all perspectives, our operations are in many key respects indistinguishable from the commercial fishing operations. The fundamental difference being our industry caters to recreational passengers, including many from out of state, who contribute to state and local economies. In addition, CPFVs allow ocean access for fishing for individuals that do not have the means to own or access to their own boats. Put differently, our operational load consists of passengers (which varies greatly depending on the boat, time of the week and year, and fluctuations in weather and fishing conditions), and commercial fishing vessels operational load consists principally of their "catch". As noted above, many owners actually engage in BOTH commercial fishing and commercial passenger fishing from their vessels at various times of the year, making these operations even more indistinguishable. Lastly, we note that the original CHC Regulation did not differentiate within the commercial fishing industry, as both commercial fishing vessels and commercial passenger fishing vessels were classified as "Fishing Vessel" (definition below) and regulated the same.

"Fishing Vessel" means a self-propelled vessel that is either: (A) a commercial vessel dedicated to the search for, and collection of, fish for the purpose of sale at market or directly to a purchaser(s), or (B) a charter vessel used for hire by the general public and dedicated to the search for and collection of, fish for the purpose of general consumption.

This was then and remains now, exactly correct. The artificial differentiation between (A) and (B) currently being proposed by CARB for the revised CHC regulation is new but should not have been changed for the purpose of this rulemaking.

II. GENERAL ISSUES WITH PROPOSED AMENDMENTS TO THE CHC

A. The Proposed CHC Regulations Disproportionately Target and Jeopardize Small, Family-Owned Businesses by Ignoring their Operational Characteristics Outside California and U.S. Territorial Waters

The ownership demographics of our vessels uniformly reflect small, family-owned businesses. Throughout the state, the CPFV fleet is comprised of two distinct groups: coastal day boats and offshore (overnight and longer) boats that typically operate the majority of their time outside of California and even outside U.S. territorial seas and contiguous zone waters, including outside of the 24-mile threshold in the rule. Most owners are indebted under capital loans on their vessels. With few exceptions, the inspected coastal day boat group has Tier 2 or Tier 3 engines. The offshore inspected vessels have most engines at Tier 2 or Tier 3.

There are currently 577 CPFV licenses issued in California to both inspected and uninspected vessels. Approximately 40% of the inspected CPFV's are federally licensed by the National Oceanic and Atmospheric Administration (NOAA) as "Commercial Highly Migratory Species Fishing Vessels." This group primarily fishes for tuna in international waters. Of these 577 vessels, 403 are "uninspected" vessels for which we believe the CARB assumptions substantially over-estimate usage by not adequately accounting for certain important variables and unknowns, including:

1. 225 Six-Pack Charters Powered with Gasoline Motors, Which Are Not Subject to The Proposed CHC Regulation

Approximately 225 of these vessels are smaller six-pack charters with outboard gasoline motors, NOT diesel. Since these gasoline-powered vessels are not regulated by this rule, they will have a competitive advantage over the regulated diesel vessels.

2. The CHC "Low Use" Exemption Threshold is Insufficient to Accommodate Transit Time to and from Port for Vessels Operating Almost Exclusively in International Waters

A concern of many of the offshore vessel operators is that the low use hours modeling in state waters is inadequate for them to simply transit directly from a California port to international waters. Yet 95%+ of their operating time is in international waters, outside of the 24-mile radius, and thus should not be regulated by this rule. This is just one of many examples where CARB's lack of analyzing subcategories with CPFVs is overstating the emissions and impacts from the entire category.

3. The CHC Regulations are Based on Erroneous Passenger Load Data by Including Part-Time Six-Pack Charter Operations

The six-pack charters typically operate only a couple days a week in season and frequently, if not usually, take more limited loads (i.e., 2-3 passengers at a time), and only a small number operate what would be considered full-time. These vessels are colloquially, but not pejoratively, called "Weekend Warriors" in our industry. Because of these and other major differences, it does not make reasonable sense to combine the inspected vessels and the six-pack boats in the same category or to put six-pack diesel owners at a disadvantage to their gasoline-powered competitors. Instead, all six-packs vessels should be considered under a recreational vessel rule that will be developed in the future.

4. The Supporting Materials Relied Upon for the CHC Fail to Account Adequately for Unrelated Emissions Impacts in Heavy Sea-Going Traffic Waterways

The analysis presented in the CARB supporting materials does not differentiate or properly account for the impact of disparate operations in heavy traffic waterways, but instead lumps in other marine operations in the largest ports and some of the busiest waterways in the world, including those in the South Coast Air Basin (SCAB) and the Bay Area Air Basin (BAAB). CalEnviroScreen 3.0 demonstrates that several marinas and harbors where CPFVs have a significant number of vessels are not located within highly impacted pollution zones, which conversely are overwhelmingly affected by emissions from operations outside the proposed rule. CARB's own health benefit analysis suggests only 7% of the health benefits from the proposed rule will occur in San Diego County where 50% of the inspected fleet is located.

5. The Proposed Rule-Making Fails to Differentiate its Data for the Multi-Function Operations of Some CPFV Vessels

Some owners of CPFV's conduct commercial fishing, excursions, diving services and workboat/educational type operations. CARB has made no effort to differentiate these multi-function boats.

6. The Proposed Regulations Unreasonably Ignore the Operational Characteristics and Difference in Coastal and (Far) Offshore Operations

There are two primary operational classifications of vessel in the fleets, coastal and offshore.

From Pt. Conception south, the "offshore fleet" operates outside of state waters and in many cases outside U.S. territorial and contiguous waters. We have many overnight and long-range vessels that spend the vast majority of their running time in transit to, trolling in or drifting on fishing grounds dozens if not hundreds of miles away. These boats travel long distances from port (often in foreign waters and to distant offshore banks).

The second group is the "coastal fleet" with fishing activities, which involve drifting, anchor fishing, and slow trolling with fully engaged propulsion generally activated mostly for traveling to and from port in what are typically 1/2- and 3/4-day fishing trips. They operate in California waters; however, they spend most of their time either anchored without engines running or trolling at low speeds/low engine loads. We do not believe that CARB's analysis has adequately accounted for either classification of vessels.

B. CARB's Economic Assumptions Regarding CPFV Operations are Fundamentally Flawed Leading to Unrealistic Conclusions that Mask the True Consequences to Their Businesses and the Opportunities of the Public to Access California's Ocean Resources

Economically, the profit margins for CPFV owners are slim, making it difficult to repower without outside funding. This is a driving reason why many of our operators diversify operations. The Carl Moyer Program (CMP) is not accessible to all owners. There are also industry fees that were not included in CARB's Standardized Regulatory Impact Assessment (SRIA). For example, in San Diego, the Port or City receive 5%, the landing that provides the piers collects 10-15%, the live bait companies receive 15%, all of which are paid by the vessel owner before receiving a "net" check from the landing accountant for passenger fare revenue. After the 35% fee collection is deducted, an owner still must make their boat loan, payroll, fuel, maintenance, insurance and advertising payments. This is a low-profit business for small businesses in the best of times.

In addition, other assumptions underlying CARB's SRIA are not borne out by experience, particularly as it relates to number of passengers and types of operations. Passenger capacities in the certificate of inspection are not the same as operational passenger capacity. Most of the vessels operate well below capacity, particularly outside certain peak times. This is true for local trips, where external conditions can drive down customer demand, and for long-range trips where trip-duration and customer experience drive reduced-capacity operations.

We realize CARB has made some attenuation to account for less than 100% operational capacity, but in reality, the true operational passenger loads and gross revenue streams are much lower than what CARB assumes. In addition, the net revenue streams after operational costs, including some overlooked, as discussed above, must also fund existing capital costs, repairs and maintenance before it can be added to cover additional costs. Moreover, days of operation outside of California, such as for vessels on multiday trips far from California shores, significantly diminish the assumed emissions impact of our fleet.

The CARB assumption of hundreds of thousands of customers on uninspected six-pack vessels vastly overstates actual passenger loads for purposes of projecting potential cost recapture through increased customer charges. For accuracy, passenger load assumptions must be tied to days underway and actual passenger load data as some may have very few days actually underway and nearly all will have many fewer actual days underway and passengers than the estimates assume.

Our Associations do not believe the cost impacts and physical feasibility (discussed more below) of implementing Tier 4 and diesel particulate filter (DPF) systems have been fully evaluated. This includes lack of evaluation as it relates to the actual cost of equipment install or vessel replacements as well as the impact on vessel capacity or the percentage increase recoupment cost that would have to be (or feasibly could be) passed down to passengers in order to "build new".

Critically, we must contemplate what price point will cause members of the public to forgo planning a fishing trip, and the collateral economic impact that has on surrounding businesses, because it is simply too costly. This variable is difficult to pinpoint, but we have received legitimate and powerful expressions of concern that the stability of the fishing tourism industry and its spending characteristics for ocean fishing activities have not been adequately considered. To characterize passenger cost increases as a viable mechanism to pay for engine repowers would require a much broader and more comprehensive study of the industry's revenue streams than what CARB

has done. To that end, the Associations have provided its own analysis of the economic impacts of this proposed rule, as detailed below.

A final salient and important fact to consider is that this fleet provides access to the ocean for a lower economic and diverse tier of our state's citizens—people who cannot afford their own fishing vessel. Price is an inflection point that determines who can participate in ocean activities. Presently, the fleet serves many people from underserved communities, many of whom count on fishing to provide food for the family table. Care must be taken to consider the impact on these folks before blithely adopting measures that adds substantial cost burdens to their access, particularly for the many disadvantaged communities for which CPFVs provide their only direct access to the ocean and its public resources.

C. The Opportunities for Vessel Owners to Access Funding Assistance to Meet the Economic Consequences of a Regulatory Scheme Whose Benefit is Disproportionately Imposed on a Relatively Tiny Number of Businesses Are Not Realistically Viable

There are residual concerns with the funding opportunities that CARB identifies as potential avenues for financial assistance and relief of the cost impact of the contemplated regulations. For many fishing vessels, funds are completely unavailable or extremely limited. There are inconsistent management practices among local Air Pollution Control Districts (APCD) under the CMP. Although there are established CMP guidelines, the local APCDs have the discretion to reduce project lives making it more difficult for some projects to compete, lower the cost effectiveness cap, prioritize industries and recipients, limit the number of engines one owner can apply for, prioritize projects located in impacted/ environmental justice zones, maximize or limit contract terms, among others. Here are some examples of how this discretion currently affects the CPFV owners:

Within the South Coast Air Quality Management District (SCAQMD), all CMP projects are prioritized for emission reductions that occur in Senate Bill (SB) 535 and SB 1550 disadvantaged and low-income communities. For the past three years, including the funding cycle that recently concluded in August 2020 (CMP fiscal funding cycles 20-22), the SCAQMD has prioritized projects located in these areas. This has resulted in automatic denial of both commercial fishing and CPFV applications located outside of these identified zones, to include, Santa Monica, Redondo Beach, and Marina Del Rey. We have seen similar funding denials in San Diego. The very notion that these projects do not qualify because their emissions do not directly affect the local population, as determined by the local APCD, is inconsistent with the CARB CHC assumptions, which erroneously point to the commercial passenger fishing industry as heavy polluters.

For example, within the San Diego Harbor, most of the inspected CPFV's are located adjoining Point Loma harbor entrance, which is outside of the identified disadvantaged community area near the Port of San Diego. According to the CALEnviroScreen (attached), which identifies California communities by census tract that are disproportionately burdened by, and vulnerable to, multiple sources of pollution, there are very few fishing vessels that are within these impacted areas. In fiscal funding cycle, Year 20, the SCAQMD Board made a motion to only fund specific industries and eliminated all marine projects from eligibility screening.

Funding opportunities vary from agency to agency, and funding distribution is based on population size and pollution severity. The SCAQMD region and Bay Area Air Quality Management District (BAAQMD) receive millions of dollars each year to reduce pollution in their large geographical regions. In contrast, the San Diego Air Pollution Control District (SDAPCD) receives \$750,000 per year, the North Coast AQMD (NCUAQMD) receives approximately \$250,000 per year, and the Santa Barbara County APCD (SBCAPCD) had a maximum of \$1.6 million this year (a non-exhaustive list).

All of the agencies, who receive CMP funds, prioritize projects based on proximity to disadvantaged communities. Many of these smaller agencies are not able to cover the full 80% that the CMP allows for or may even cap the project award funds at a specific amount. For example, the NCUAQMD has (at times) capped projects at 65%, while the SBCAPCD will limit funds to a maximum of \$150,000. For most inspected vessels carrying more than seven passengers, \$150,000 will only cover the purchase of one engine and possibly none of its associated installation cost. The other propulsion engine must be covered by the owner. Funding for CPFV's is inequitable throughout the state, with several limitations.

Some Districts rank projects, and funding is competitive, and some Districts offer first come first serve funding opportunities. This limits funding opportunities where marine vessels are competing against industries that are the first to have more modern engines and equipment available due to U.S. Environmental Protection Agency (EPA) emission standards and approval processes.

The locations of operations allowed for vessel owners vary from one agency to another. For the BAAQMD and SCAQMD, 75% of a vessel's operations must occur inside their identified waters. By contrast, the SBAPCD requires 100% operation within a multi coastal county region - Santa Barbara, San Luis Obispo, and/or Ventura counties. This eliminates funding opportunities to those who operate outside these parameters.

As previewed above, some agencies will fund projects at the maximum eligible project life at 16 years, while other agencies will cap the project lives at 3, 7 or 10 years. When projects are calculated at shorter project lives, it is difficult for marine projects to compete, as off-road and on-road engines that achieve greater emissions reductions are approved more quickly than marine engines. In addition, marine projects are extremely costly in comparison to other categories, which is another limitation to the CPFV competitiveness when evaluated on the cost vs benefit of associated emissions reductions.

The current proposed replacement schedule in the CHC rule does not allow for three years of surplus emission reductions, in order to qualify for CMP. Most vessel owners can only complete repower work in winter (off-season). This requires careful planning and puts pressure on engine lead times and facility availability. In addition, currently CMP funds do not cover vessel replacement, which will be the majority of the costs for CPFVs under the CHC. Finally, with this rule, there will be thousands of vessels seeking CMP and other grant funding resulting in even greater competition for limited funds.

D. CARB Dismissively Glosses Over the Conclusions of a California Maritime Academy Study It Commissioned Which Concluded the Requisite Engines are not Available for the Targeted Vessels and Would Create Severe Financial and Safety Challenges

We remain concerned about the feasibility of the proposed regulations requiring Tier 4 engines and DPFs. The Cal Maritime Study, performed on behalf CARB and the CHC rulemaking, raised several concerns including the negative impact to the average "sportfishing vessel" due to the unavailability of certified Tier 4 engines and DPFs, the inevitable loss of passenger carrying capacity and consequential vessel instability. Our information suggests existing manufactured Tier 4 engines and DPFs would not be compatible with most of our vessels (wood and fiberglass) and the size of our industry is not sufficient for original equipment manufacturers (OEMs) to deploy the research and development and other resources necessary to try to design Tier 4 engines/DPFs compatible for these vessels (see Engine Manufacturers Association letters to CARB dated October 19, 2020 and April 16, 2021).

Moreover, based on the study findings, Cal Maritime suggests that accommodating a Tier 4 engine creates a severe financial impact for CPFV business owners due to a forced reduction of passenger capacity. Additionally, as explored more below, the safety and stability of vessels would be compromised. CARB used Cal Maritime safety and financial impact rationale to justify their decision to only require commercial fishing boats to meet Tier 2 engine standards, including extended time periods for compliance. It is inexplicable that while CPFVs exhibit the exact same characteristics, CARB seeks to impose a completely different (and substantially more onerous) set of standards for our vessels. Per CARB's analysis, the limited requirements for Commercial Fishing Vessels are based on the following:

- *Unique offshore operations.* This is probably truer for CPFVs, where more operations are far offshore. Commercial fishing has many operations that are near-shore.
- *Industry economic considerations compared to other vessel categories.* CPFVs face the same economic issues as the commercial fishing vessels do, and profit margins per boat may even be lower.
- *Due to larger population (38 percent of fleet), emissions reductions are still needed.* SAC/GGFA would commit to similar controls as proposed for commercial fishing vessels, and inspected CPFVs represent a much smaller percentage of the CHC fleet standing at 174 vessels compared to 1,199 for commercial fishing.
- *Draft proposal would require Tier 2 or newer engine, phasing in between 2030 and 2032.* SAC/GGFA would commit to these same requirements and believe that those with access to CMP grants are already compliant.
- *Later compliance schedule than other regulated in-use vessels to allow operators to maximize funding opportunities.* CPFVs would like the same time ability to maximize grant and other funding.

With our previous input, CARB appears to have realized that vessels replacement will be necessary for CPFVs and now the rule is focused on the replacement of CPFVs with new boats, specially designed to accommodate Tier 4 engines/DPFs. This actually increases the cost of compliance and makes the financial impact argument even stronger that this rule will have substantial cost impacts, which will drastically affect the CPFV industry, associated coastal businesses and equitable access to our oceans.

E. Though the CPFV Fleet Supports and Has Pursued Rational Emissions Reduction Efforts, the Universal Concerns of the Industry Regarding These Particular Rules at this Particular Time Have Been Largely Ignored

We have received nearly unanimous concerns that, economically, very few, if any, companies could afford to replace their boats and engines and meet their existing boat payment obligations. In their collective experience, the relationship between passenger cost and demand makes recoupment through fare increases an untenable model to fund a near-term transition to the proposed regulations. Decreased passenger loads due to the Covid-19 pandemic have further compromised their economic models. While we expect the current health crisis to pass, we do not know when or what might come next. However, historical and recent experiences with increased fares exacerbate the fleet's consternation that passenger fare increases alone will not be a viable solution to continued CPFV operations. A common theme expressed was that if this rule goes into effect, the result would be most CPFVs would be out of business within three to six years. Since CPFV ownership is dominated by small businesses, this effect would be even more devastating. If the industry survives, it would likely be taken over by large corporate interests.

The fleet mechanic and engine manufacturers are concerned with Tier 4 engine and DPF fire issues as well as engine inoperability during periods of DPF cleaning. CPFV's troll at slow speeds and the DPF would potentially plug up creating a mechanical failure situation when at sea with passengers. In light of the Conception fire incident and the use of boats by passengers, the USCG is carefully monitoring any changes to these vessels pursuant to Subchapter T of the Code of Federal Regulations.

While the goal to reduce emissions in the State of California is laudable, it is being accomplished efficiently and with substantial success as proscribed in the rules for Commercial Fishing Vessels such that differentiation of the CPFVs, particularly in light of the drastic economic consequences, physical configuration and safety barriers, is untenable and not supportable.

SAC conducted a survey, which indicated most of the inspected vessels that presently operate on the coast have repowered to Tier 2 or 3 engines through grant-funded projects. Based on the owners' comments, it is unlikely that they will be able afford to replace their vessels and repower again to Tier 4 and/or DPF without access to funding. It is recommended that CPFVs continue to be classified with Commercial Fishing Vessels so they can then afford to upgrade to Tier 3 engines as funding programs are available.

It is commonly believed offshore vessels that transit state waters in route to international or foreign waters should not be part of the CHC Rule. These vessels are easy to identify as they are permitted by NOAA as Highly Migratory Species vessels. Those operations generate valuable tax revenue and economic impact to the region and state that could be lost if subjected to the proposed regulations. They operate on the high seas and have minimal impact on the states air resources transiting to the harbors and due to the West-Northwest wind that prevails on approach to, primarily, San Diego. These vessels should be exempted from the rule or a sufficient low use exemption that reflects their operational days and necessary transit times.

F. CARB has Intentionally Engaged in Propaganda to Mislead the Public, Elected Officials and Stakeholders about the Contributions of Emissions from CPFVs and Suggested Dire Consequences for Scenarios Never Contemplated or up for Consideration by the Board

After announcing to the press that a single CPFV contributes the same emissions as 162 school buses, the industry had SCS Engineers (SCS) evaluate the claim. It was conveyed to CARB staff in a Zoom call that it was a disingenuous claim at best. CARB staff responded to the criticism by creating a fact sheet with the claim for its website and for distribution.

For the comparison to school buses, CARB staff used a bus equipped with a modern Tier 4 engine with DPF operating at low speed. For the CPFV, CARB staff used the maximum certified emissions allowed for a Tier 2 engine and multiplied it by two. Beyond the apples to oranges comparison that ignores there are not approved Tier 4 engines with or without DPF for CPFVs, CARB intentionally misleads with the example by artificially lowering emissions from the bus and ignoring the operational profile of a CPFV and assigning maximum possible emissions. In addition, the example is used to create an emotional response and fully ignores the risk profile to receptors of school buses operating months of the year around children where CPFVs operate in harbors and spend much of their time in unregulated waters. CARB lashing out in this manner can only be seen as an attempt to try to discredit the legitimate issues of social justice and equitable ocean access that the proposed rule raises with vessel owners working with Title 1 schools, at-risk youth, veterans, and other non-profits to provide ocean education and access.

Specifically, SCS found the CARB comparison disingenuous for the following reasons:

- CARB is comparing a modern school bus with Tier 4 engine and DPF filter operating at 20 MPH to the maximum emissions allowed on a CPFV with two Tier 2 engines per vessel, which is common for CPVFs.
- Bus engines are smaller with less horsepower than the engines used on inspected CPFVs, so it is not an apples-to-apples comparison on engine capacity.
- Tier 4 engines are readily available for buses; they do not currently exist for CPFVs.
- CPFVs do not operate at maximum capacity; they troll for fish at low rotations per minute (RPMs) and sometimes even anchor or drift offshore on a single engine.
- CARB's assertion implies that all 352 CPFVs are operating with these emissions (as previously mentioned they are including six passenger boats to inflate the emissions from the CPFV category). This disregards the fact that many CPFVs already have Tier 3 engines, and even without the rule, all boats will eventually convert to Tier 3 and even Tier 4 in the future. CARB's comparison assumes that CPFV emissions would not improve without this rule, which is not true.
- These CPFVs are also not operating at or near a school, with children present, and not operating extensively near shore. Therefore, CARB is misleading on the health risk impacts from school buses versus CPVFs. An equivalent amount of emissions from a school bus will have a more direct and significant risk impact on human receptors, especially children, compared to boat emitted at sea.
- School bus upgrades have come at 100% taxpayer funded expense – is CARB offering to buy every owner a new boat? No, they are creating a mandate to take away or limit grant funds for upgrading existing vessels and buying new vessels.

Given that the Chair was appointed largely to ensure CARB policies advance social justice and equity, does the CARB Board and executive staff support such blatant and disingenuous propaganda to discredit these legitimate issues raised by stakeholders?

Does the Newsom Administration support using taxes and fees used to support state created and promoted propaganda against small business owners advocating for their survival and the survival of programs they support?

Should the Legislature conduct oversight of programs engaged in this behavior or impose rules to prevent this type of conduct?

Does CARB have any policies in place to prevent this type of conduct from occurring?

CARB staff further made assertions that unregulated CPFVs would become the largest percentage of PM if unregulated. However, no CPFV owners have asked to be exempted from the regulation. In fact, CPFV owners have argued strenuously to be included in the regulation with commercial fishing vessels, as they have been historically, to reflect the similarity between the vessels, safety considerations, and economics of the industries. CARB staff obfuscate the true size of the CPFV fleet and emissions (covered elsewhere in this letter) and appear to ignore that the majority of inspected CPFVs are already Tier 2 or Tier 3. However, because CARB has not provided usable and transparent data in this instance, the industry is unable to even analyze the assertions made. On its face, it is hard to understand how 1,199 vessels under the proposed rule would reduce PM emissions by roughly 80% and end up with half of the PM emissions as 174 vessels. Regardless CPFVs are asking to be regulated with Commercial Fishing so emissions would be expected to fall at a similar rate.

Using CARB's own data (Figure VI-6 from the staff report), diesel particulate matter (DPM) emissions from commercial fishing vessels would decrease from approximately 40 tons per year (tpy) in the 2023 baseline year to less than 10 tpy after compliance with the rule in 2038 (an approximately >75% reduction). If included with commercial fishing under the CHC rule, CPFV emissions would be expected to see a similar >75% reduction from approximately 20 tpy to less than 5 tpy in 2038. At <5 tpy, CPFV would absolutely NOT emit greater than 50% of the DPM emissions compared to the rest of the CHC fleet as CARB has suggested. Yet again CARB has prepared a completely unrealistic and outlandish analysis to try to prove a point instead of engaging in an honest dialogue on the proposed rule.

CARB staff later developed similar "fact sheets" for other vessel classes.

G. CARB Has Not Made the Necessary Information Available to Adequately Review the Alleged Emission and Health Impacts/Benefits from the Rule

SAC and its consultants have been trying to obtain detailed emission, air dispersion modeling, risk assessment, health benefit, and cost information for CPFVs for months, dating back to as early as May 2021. CARB has provided limited, piecemeal information, and kept putting us off, suggesting the material would be available when the rule package came out. To begin with, this is too late. CARB should have supplied this information to affected industries well ahead of the rulemaking so that there would be time for review and correction of the information by those that know the regulated sources the best. However, even when the draft rule came out on September 21, 2021, this information was not complete. CARB has continued to provide piecemeal information since September 21, 2021, including the latest submittal on October 27, 2021, which

is five weeks after the draft rule and only two and half weeks before comments were due. Nevertheless, even this information is not complete.

For example, CARB supplies emissions information or links to it on October 27, 2021. When SAC tried to obtain the information, we followed CARB's instructions and downloaded several zipped files with a "7z" extension. To extract the files, we had to install special software as Windows or MAC were not able to extract. Once we got the files, the main one is a large (57 MB) database file that has an "Rdata" extension. We have been struggling to open this file to review the data. We tried to download several open-source programs to do so, but to no avail. Even our IT departments could not figure it out, and were, of course, leery of multiple open-source programs having to be downloaded just to open one file. There are some expensive software packages that may be useful, but we hesitate in spending the money not knowing if they will even work. Moreover, once opened, it is unclear how easy it will be to work with this file, query the data, and get what we want since no one here has ever used this software before.

As another example, SAC enlisted a toxicologist to review information on health risks and projected benefits from the rule. Access to these data were provided on October 22, 2021, and this was also incomplete. The toxicologist has the following questions and additional data needs that would need to be fulfilled before an adequate review could be done.

- Multiple values of the concentration-response (CR) function coefficient (β) are available in the source CARB cited (e.g., Bell et al. (2008) for cardiovascular and respiratory hospitalizations). For example, Bell presents four coefficients for cardiovascular hospitalizations and four coefficients for respiratory hospitalization. These four different coefficients correspond to each of four different regions (Northeast, Northwest, Southeast and Southwest). Bell et al. also provides seasonal and nationwide values, as well as 0-day and 2-day lag model coefficients. Please specify exactly which value(s) CARB used in the log-linear model(s) for cardiovascular and respiratory hospitalizations or whether an average or pooled value was used.
- Please specify the exact values of the CR function coefficient CARB used (or derived) from Ito et al. (2007) and Krewski et al. (2009).
- The Ito et al. (2007) study is based on data from New York City. Did CARB consider the potential effect of regional differences in using the Ito coefficient for California? Population characteristics and the relationship between air pollutants and health impacts are likely to differ geographically, especially when there are large differences in weather/meteorological conditions between the locations.
- The incidence per ton (IPT) factor approach assumes that all of the health outcomes of interest (e.g., premature deaths, cardiovascular/respiratory hospitalizations, emergency room visits) are due to air emissions. There does not appear to be any attempt to correct the IPT factor for incidents unlikely to be related to air emissions. Thus, this approach is likely to overestimate the number of incidents and correspondingly, the benefits accruing from a reduction in emissions. Please provide the IPT factors CARB used and exactly how they were calculated; we were not able to ascertain these values.

- The papers cite by CARB (Krewski and Bell) for the effect coefficients (the slope of the CR function for the effects of premature mortality, etc.) actually contain many if not dozens of coefficients so CARB needs to specify exactly which coefficients they used from these papers. As far as the Ito paper is concerned, the coefficient value is not actually shown in the paper so it is not clear how CARB obtained that value from Ito.

Information as important as this to a major rulemaking should be much easier to access and available much earlier in the rulemaking process. CARB should provide the data in the most easily readable and universal programs possible. There should be more detailed data tables in your staff report, or attached to it, that have every emissions modeling, risk, and health benefit data point for each year, vessel category, and air basin as well as all of the input variables used in the calculations and their sources.

Transparency should be the order of the day, and the format and timeline in which you have supplied data is far from transparent. It feels as if CARB is making access to these data as difficult as possible as well as providing data so late in the process that there is not adequate time to do the necessary review.

And while CARB staff agreed to discuss the limited issue of why they combined uninspected six-packs and inspected CPFVs on October 28, 2021, which we accepted the next day, CARB informed us they would propose dates and times on November 3, 2021, but no further communication has been received.

III. TECHNICAL AND FINANCIAL ISSUES

A. Technical Analysis

1. By Improperly Combining Inspected Vessels with Six-Pack Charter Operations, including those with gas-powered engines, CARB has Misleadingly Conflated and Skewed the Data, While Refusing to Conduct or Provide More Meaningful and Insightful Information

The combination of inspected vessels with six-pack boats skews emission numbers and risk impacts from inspected vessels such that we cannot see the separate contribution of each vessel category. Beyond the fact that both offer fishing opportunities to the public, there are very few other similarities between inspected vessels and the six-pack boats. Further, since these boats are prevalent in different locations across the state at different population sizes/percentages, their inclusion in the data set also skews the contribution of inspected vessels in each air basin falsely makes it appear that there are more inspected vessels in the major health impact zones (South Coast and Bay Area). In addition, since all but a few of the diesel-powered six-pack boats, which are regulated by this rule, are part-time vessels, it does not make sense to regulate them at all under the rule.

SAC specifically requested data separately for inspected vessels and six-pack boats. It really is key to have all of this data separately as without it, stakeholders cannot adequately assess the emission/risk/health benefit contribution from the inspected vessels and whether the stringent regulation of those boats is reasonable in light of their separate and unique impacts. SAC's data requests in this regard are detailed below:

- SAC asked for separate emission numbers for inspected and six-pack vessels. CARB indicated that these data were not separated. We believe CARB should have the data to do these calculations separately, and that the calculations should be straightforward for them to complete.
- SAC asked for separate risk reduction numbers for inspected and six-pack vessels. CARB indicated these data were not separated. We believe CARB should have the data to do these calculations separately. Once CARB completed the separate emission numbers above, this task would be easy to complete.
- SAC asked for separate health benefits numbers for inspected and six-pack vessels. CARB indicated that these data were not separated. We believe that CARB should have the data to do these calculations separately once they completed the separate calculations for emissions and risk reductions.
- SAC asked for a separate air modeling, risk calculations, and health benefits analysis for inspected and six-pack vessels as part of the detailed analysis completed in the BAAB and SCAB. CARB indicated that this analysis was not completed separately for each vessel category, which we believe is a major flaw in the analysis. It is critical to know which vessel types are contributing the most to these risks/health benefits.
- SAC asked for separate cost numbers for inspected and six-pack vessels. CARB said these data were not separated. We believe that CARB should have the data to do these calculations separately. This is very important since the capital and operating costs for these boats vary substantially.

Much of the data and analysis that was furnished by CARB arrived late, weeks after the public notice and comment period commenced, and was presented in cumbersome and, in several instances, wholly inaccessible format, preventing meaningful analysis. The industry and the public deserve complete transparency and data before such disruptive standards are adopted.

2. By Using Combined Data and Analysis, CARB Has Prevented an Adequate and Accurate Assessment of CPFV Contributions to Emissions and Health Impacts

Some of CARB's analyses conflate the overall projected risk impacts and health care benefits of ALL CHC and not specifically the 174 inspected CPFVs. Sportfishing and whale watching boats typically represent a very small portion (approximately 10%) of the CHC found in most marinas and harbors. Further, CPFVs are not present in significant numbers within large ports that serve international vessels where CARB's projected health benefits are greatest (e.g., Los Angeles and the San Francisco Bay Areas). As already highlighted above, approximately 50% of the full-time USCG inspected CPFV's operate from San Diego County; however, only approximately 7% of the expected health benefits per CARB's numbers occur in San Diego County. This strongly suggests that stringently regulated inspected CPFVs will not deliver the substantial health benefits invoked to justify this rule.

SAC made the following data requests relative to this issue:

- SAC asked for separate risk reduction numbers individually for all CHC vessel types. CARB indicated these data were not calculated, which makes it impossible to compare and contrast the risk contribution of each vessel type.
- SAC asked for separate health benefits numbers individually for all CHC vessel types. CARB indicated that these were not evaluated, which makes it impossible to compare the relative contributions of each vessels category to the alleged health benefits under the rule.
- SAC asked for separate air modeling, risk calculations, and health benefits for each CHC vessel type for the detailed analysis in the BAAB and SCAB Basins. CARB said that this analysis was not completed separately by vessel, which prevents us from demonstrating that inspected CPFVs are minor contributors to risks/health benefits in these key locations, compared to other CHC.

3. By Excluding Commercial Fishing Vessels, Which Have Eerily Similar Operational Characteristics, CARB Has Arbitrarily Targeted Commercial Passenger Fishing Vessels, Reducing the Benefits of the Rule While Capriciously Imposing Technologically Unavailable Burdens on a Very Small Segment of Vessels

If CARB were truly concerned about health risks in the port communities, it would not have excluded commercial fishing vessels from the most stringent level of regulation in the proposed rule. CARB has exempted 1,199 commercial fishing vessels from complying with the most stringent, risk-reducing portion of the regulations while requiring 174 inspected CPFVs to comply. CARB did not even analyze what the additional health benefits would have been if the commercial fishing vessels were fully regulated under the rule, which is a glaring omission from the rulemaking materials. By excluding a large number of vessels from the requirement for Tier 4 engines and DPFs, CARB is placing the burden of stringent emission reductions on the remaining vessels in the CHC fleet, including CPFV vessels for which the standards remain technologically unavailable, operationally infeasible and economically and financially unviable. CARB's justifications for exclusion of commercial fishing boats also apply to the inspected CPFVs, and both vessel types are very similar in many aspects except that CPFVs carry passengers. As such, both vessel categories should have been treated similarly under the rule under the compliance path afforded Commercial Fishing Vessels to allow continued access to grant funding for CPFVs as well and an appropriate timeline.

4. CARB's Reliance on the Two-Highest Polluted Communities for Detailed Modeling, Without Similarly Modeling the Communities Where Most of the CPFV's Operate, Creates Unsupported or False Correlative Assumptions.

The selection of only SCAB and BAAB for detailed modeling and risk analysis does not accurately represent the inspected CPFVs where 50% are in San Diego. In addition, the CPFV fleets in these two locations are different from those in San Diego because they spend more time in near shore fishing. The San Diego inspected CPFVs spend the majority of their engine operating time outside of the 24-mile radius. CARB should have completed detailed modeling and risk analyses for each Air Basin as well as separate detailed analyses for each of the vessel categories at each port location, so that stakeholders and the public could see the relative contributions of each

vessel type in each location, including port and Air Basin. If this would have been done, then more informed decisions could have been made as to which vessels in which locations should be regulated and at which stringency level.

5. CARB Actively Ignored Available Vessel Logbook Information to Gather True Operational Data but Instead Relied on Incomplete and Insufficiently Representative AIS Data for Its Modeling and Risk Analysis.

When making the calculations for their inventory and health analysis, CARB used incorrect assumptions relative to CPFVs. According to CARB, they used AIS (Automatic Identification System) data to calculate what portion of vessel activity was occurring within 24 miles of the California coast. However, AIS is not required on vessels of less than 65 feet, unless they are operating in a Vessel Traffic Service (VTS) area. A majority of the CPFV fleet is less than 65 feet, and the two VTS areas in California are directly offshore of the Golden Gate and Los Angeles/Long Beach harbors, thus AIS is not required for the majority of the CPFV fleet. The CPFV fleets of San Francisco Bay Area and South Coast tend to spend more time fishing inshore than significant other portions of the CPFV fleet, such as in San Diego.

Because of this, any use of AIS data to show area of operation will bias the data towards a more inshore area of operation than actually occurs as a whole for the CPFV fleet. A more accurate method of determining area of operations of the CPFV fleet would be to use logbook data from the CDFW as we have repeatedly indicated to CARB. All CPFVs must submit daily logs of times and location they spent fishing. CARB should have used this information, rather than AIS data, for its modeling and risk analysis of CPFVs.

Much of the CPFV fleet from San Diego spends the majority of their time in the Mexican EEZ where AIS is not required on vessels of less than 150 tons, thus the AIS data is not usable. Most of the CPFV fleet that has AIS has only class B transponders, which are lower powered and less likely to be accurately received by shore stations. Relying on Marine Cadastre (Vessel Traffic information) for accurate locations of the CPFV fleet will not yield accurate results.

6. CARB Admittedly Relied on Survey Data It Acknowledged was Flawed from Which it Made Unjustified Assumptions to Support its Position

CARB staff also used a second method in determining area of operation of CPFVs. This method consisted of a survey that was required by operators of commercial vessels in California. Unfortunately, the public outreach for this effort was not very robust, and this resulted in an incomplete data set. Many of the boat owners did not fill out the survey or did not understand the questions being asked or how the data would be used. For example, when filling out reports, some owners were not clear that ONLY hours and fuel burned in California regulated waters were to be reported. Since there had been new requirements for hour meters that could not be shutoff, the owners (incorrectly) assumed that we were being asked for total hours of operation annually. CARB staff acknowledges this issue in Appendix H of the Staff Report, where they nevertheless decide to assume that ALL hours reported are from regulated waters. By not correcting this issue, the data are significantly biased towards showing higher emissions in regulated waters than there actually are.

Once again, CDFW logs are legal documents that show positions and time spent operating in certain geographical areas. One analysis of vessel logbook data, contemporaneously furnished as required to the CDFW, by the owner of a fairly typical overnight vessel (conducting trips of 1-3 days duration) calculated over a five-year period that 16.28% of the vessel's operational time

was spent in regulated waters, contrasted against the 83% of time assumed by CARB staff using faulty AIS and survey data for operational time conducted in regulated waters. Critically, operators are required to carefully track their areas and times of operation and to submit the logbook to CDFW, a California governmental agency, but in making operational assumptions, CARB, also a California governmental agency, consciously chose to ignore regulatorily required *actual* data in favor of inaccurate and deficient *surrogate* data, even though CARB recognizes and acknowledges the data was not reliable as a proxy. This owner's analysis can and should have been replicated by CARB in developing its rulemaking. By not using these data, CARB staff are not using the best available science in the assumptions for their analysis and likely overstated emissions by 5 times for 50% of the fleet.

7. CARB Failed to Account for Differences in Land-Based versus Maritime-Based Operations and Ignored Identified Safety Concerns Attendant to DPF Use While at Sea

CARB wants the marine engines on CHC equipped with DPFs, the same technology appearing on trucks and off-road equipment that is causing extensive downtime for truckers and farmers. In order for a DPF to not become plugged, it must run at high RPMs, in stark contrast to CPFVs boats that typically troll for fish at low RPMs. Under low RPMs blockage is quite common, creating significant heat and severe backpressure on engines, sometime taking hours to clear the blockage and restart stalled engines. A stalled truck is very different from a stalled boat, adrift at sea, with numerous human passengers at risk. A stalled boat coming into port would have a risk of running aground or crashing into the dock, which would result in damage to the vessel and potential injuries to crew and passengers. CARB has received an October 28, 2021, letter from the California Association of Harbor Masters and Port Captain expressing this same concern.

Under the best-case scenario, boats could be adrift for hours as crews try to recover engine systems. More likely, at sea rescues would become common due to engine failure. In a worst-case scenario, engines fires, which have occurred on truck engines using DPFs, could occur putting passenger and crew at severe risk.

In a surprising and glaring omission, CARB did not consult with the USCG, that regulates the safety of passenger vessels, until after the proposed rule was drafted. Due to the seriousness of this issue, CARB should have done a detailed analysis of the health and safety risks for the use of Tier 4 engines with DPFs on passenger vessels, which operate far out to sea, away from first responder services.

B. Financial Analysis

1. CARB Acknowledges the CHC Rules will Require Full Replacement for Many Vessels, But Vastly Understates Likely Replacement Costs

By CARB's analysis, an average inspected vessel with two 400 horsepower (HP) engines would cost approximately \$2.2 million to purchase new (including Tier 4 engines and DPF). Our Associations had previously recommended CARB contact a reputable shipyard to obtain a true cost estimate for building new vessels, but clearly CARB did not. A SAC member solicited such reliable projections from a reputable shipbuilder confirming its belief that the real cost is \$4.6 million to \$5.7 million depending on the class of the vessel. Replacement cost is another instance where the data is highly skewed by the combination of inspected and six-pack boats. Cost averaging across a more limited number of inspected vessels and a higher number of six-pack boats creates misleading, unreliable and ultimately uninformative data. Because the costs of these classes of vessels are so disparate, a separate analysis should have been performed for both inspected and six-pack boats. Finally, CARB links all of their vessel replacement costs to the HP of the engines; this again is an inaccurate way to assess such costs as it fails to capture the wide variety of costs related to the building of a new boat that are not related to and certainly not linearly correlated with HP. CARB's inaccurate assessment of new vessel costs is a huge discrepancy that calls into question the entire financial analysis of the rule impacts on CPFVs.

2. CARB Overstates the Resale Value of CPFV Vessels Forced Out of Operation by the Proposed CHC Rules

CARB's costs overstate the resale value of vessels forced out of service and does not account for the payback of existing loans on boats. CARB's cost analysis assume that an existing vessel would have a resale value of \$465/HP. For the two 400-HP engine examples noted above, that would be \$372,000 for resale value. SAC's informed belief is this value dramatically overstates the resale value for inspected CPFVs, which are specially constructed for fishing in California waters. Most vessels are likely to have minimal to zero value except for scrap materials in California. Even outside of California, these boats would have little value due to the retrofits that would be needed to fish in other locations, whether in other states or other countries. Worse, and finally, if there were no resale value out of state or country, then the owners would have to pay additional costs for destruction or pay for it to be moored. Further, any resale or scrap value likely would simply be applied to reduce the debt on existing boat loans and be unavailable to offset vessel replacement costs. Again, this is a huge discrepancy that calls into question the entire financial analysis of the rule impacts on CPFVs

3. CARB's Assumptions Understate the Fare Increases Required for Vessel Cost Recapture

The ticket price increase analysis by CARB indicates that inspected vessels would need to increase ticket values by less than \$40/per person per day to pay for the cost of the rule. CARB's analysis significantly underestimates this cost. Independent cashflow analysis by a certified public accountant with experience in the maritime industry determined that ticket price increases of \$194 to \$362 per person per day for multi-day and day trips, respectively, would be required to accommodate the capital cost of a new vessel with a breakeven cash flow (no profit). This would be a 97% to 200% increase over existing rates, which is a value that is not attainable or sustainable in the market. In addition, since the size, passenger capacity, and ticket prices of individual CPFVs and their trips vary so much, any projection of increases in ticket price should be valued as a percent increase rather than fixed values.

4. The CHC Regulations Will Unfairly Create a Competitive Market Advantage for Gasoline-Powered CPFVs

The exclusion of gasoline-powered six-pack boats from regulation gives them a competitive advantage in the market. CARB did not evaluate the impact to the diesel-powered boats viability given that gasoline-powered boats are not regulated under the proposed rule and will not be spending millions of dollars for compliance. Because few diesel-powered six-packs operate full-time, they should be removed from the regulation and considered under the recreational boating regulation that will be developed in the future.

5. CARB Failed to Assess the Market Impact of Competition from Mexico if CPFVs are Forced out of Business or Required to Absorb Anti-Competitive Regulatory Costs

CARB did not assess the competition of Mexican-based sportfishing on the San Diego area sportfishing operations where 50% of the inspected vessel fleet is located. If CPFV businesses are forced out of business due to the costs of the rule and/or of if they cannot provide competitive pricing, this would significantly increase competition from the Mexican sportfishing industry. Similarly, vessels on the North Coast may be impacted from vessels operating in Oregon or even Washington.

6. The CHC Rules Fail to Account for the Near-Term Double Jeopardy Impact of California's Announced Conversion to Zero Emissions by 2035 or 2045

The Newsom Administration has set a goal of the state becoming carbon neutral by 2045 and in a July 7, 2021, letter to the chair of CARB, the Governor asked CARB to examine if it was feasible to achieve this goal even sooner, by 2035. This would likely require all vessels to operate with electric motors supported by batteries or hydrogen. Boat owners question the merits of being required to build larger steel boats powered with new fossil fuel engines over the next two to eight years, or by 2034 at the latest, if they will be mandated under the Governor's proposal to replace their engines or boats once again once zero emission technology becomes feasible. This could create a worst-case scenario where CPFV owners will be required to scrap newly purchased boats and engines and replace their vessels and engines again for the second time in less than 20 years, far below the useful life of the vessels. If this is the ultimate goal for CARB, then the proposed rule is not the correct path forward. Instead, the CHC industry and the State of California should be focusing its resources into research and development for zero emission CHC boats.

7. The Cost Impact of Requiring Vessels to be Retired and Replaced will Lead to Many or Most of the CPFV Small Family Businesses to Close

Since over 80 percent of California sportfishing and whale watching boats are constructed of wood or fiberglass, CARB has indicated (see below) that the majority of inspected CPFVs will have to be replaced rather than upgraded or repowered. In fact, CARB notes in their economic analysis that they believe only one of the CPFV fleet can likely be retrofitted; all 173 of the other inspected vessels would need to be replaced. Should the regulations become effective January 2023 as proposed, CPFV owners will have to assess whether they can afford a new steel vessel with Tier 4 engines and DPFs, when this may be required based on the rule deadlines and the various extensions in the rule, and if the owners cannot afford it, when to go out of business.

"We, through this process, discussed the findings of the feasibility report from the California Maritime Academy and for some sectors are estimating that for vessels operating above the low use threshold that vessel replacement will be likely, especially

the categories with wood or fiberglass vessels that can't be as easily reconfigured." - Public Workshop for the Proposed Amendments to the Commercial Harbor Craft Regulations, March 16, 2021

Small businesses that have been here for decades would go out of business. CARB appears to agree as stated in their documentation

"...(CARB) staff cannot rule out the possibility of some business elimination if costs cannot be passed onto the customer or if passing through costs would result in significant decrease in demand." - CARB, Standardized Regulatory Impact Assessment, July 7, 2021

CARB's analysis of the impact of this fact is severely lacking, as it does not:

- Estimate how many businesses will go out of business, including small businesses.
- Assess the impact of the business closing on jobs.
- Assess the impact of business closing on the economy of the ports and coastal communities, including taxes, fees, etc. CARB received an October 26, 2021, letter from various business coalitions, which expressed these same sentiments about the drastic effects this rule would have on these communities.
- Assess the impact of business closing on tourism.
- Assess the impact of business closing on fees paid to federal and state agencies who license and regulate these boats. This would include fees that fund the CDFW's conservation programs, which rely on these fees.
- Assess the impact of business closing on recreational fishing participation rates, and fishing license revenue that fund fishery and conservations programs administered by the California Department of Fish and Wildlife.

8. The Value of Available "Time Extensions" are Overstated and Misleading

Under the proposed rule, CARB has stated that vessels must be removed from service at the conclusion of any approved extensions. The proposed rule would allow the Executive Officer at CARB to grant up to 6 or 8 years of extension for financial reasons; however, at the end of this period, the vessel would need to be taken out of service if it cannot be retrofitted, which again is highly unlikely for CPFVs. These extensions are available in two-year increments up to a maximum of 6 or 8 years, depending on compliance date, and CARB has to approve the extensions each time based on information submitted by the boat owner.

CARB believes that the additional two-year extension (from 6 to 8 years) that has been offered for a limited number of vessels will solve the economic impact issues under the rule by allowing more time for owners to finance the replacement of their boats. In reality, this change will have no material impact on boat owners. It just delays the inevitable for many, if not most, boat owners who will have to spend millions of dollars on replacement vessels when engine rooms cannot be structurally or safely be modified for larger engines and equipment. Moreover, boat owners should not presume that they could claim every two years that it is impossible to comply for economic or technical reasons. As drafted, the standards for two-year extensions are complex and are designed to evolve as new technology comes onto the market. Every two years from as early as 2023 to 2034 or whenever the 6- or 8-year extensions run out, whichever comes first, CARB will make a discretionary determination whether they believe an existing boat can comply or has to

be replaced and whether they agree that you meet the financial impact/affordability criteria. That is, there is no guarantee extensions will actually be granted, and CARB has yet to even publish the criteria it will use to assess these extension requests.

Additionally, CARB indicates that it will cost each vessel owner more than \$61,000 to simply prepare the required documentation to apply for the first two-year extension. Because CARB has presented no criteria, it is unknown how much of this would be a re-occurring cost. And in the meantime, the vessel owner is required to upgrade their existing vessel to Tier 3, likely without the assistance of the CMP, and then scrap or sell that vessel at the conclusion of the granted extension period(s). As noted previously, CPFVs are low margin businesses that have been using grant funds to reduce emissions. Limiting the grant funds and placing a substantial cost burden on vessel owners to simply apply for an extension is not workable. In addition, the vessel owner would need to start constructing the new vessel during this time and making progress payments.

Given the uncertainty of securing extensions, the lead time to construct new vessels and the significant and overlapping economic barriers, CARB has created a false assertion of a path for compliance that will require boat owners to not only retire their boats, but to leave the industry all together.

9. CARB Has Insufficiently Analyzed or Accounted for the Drastic Economic Impact on the Businesses and Communities that Support the CPFV Fleet

Innumerable ancillary businesses are intertwined with and depend on the CPFV Fleet's Operations. These include obvious businesses such as the Landings, where the CPFV's are berthed, bait and tackle shops, fish processing facilities and parking concessions. These also include local restaurants, gift shops, and hotels as the CPFV Fleet caters to many out of town and out of state customers who bring tourist dollars to the surrounding local communities. These also include state and local governmental agencies that depend on the revenues, license fees and taxes generated from CPFV Fleet and its ancillary businesses. CARB has not performed a meaningful economic analysis to assess the actual consequences of the proposed regulations.

10. CARB Has Not Assessed and the Proposed CHC Regulations do not address the Likely Adverse Impact to Ocean Access for Marginalized Individuals and Groups

The CPFV fleet provides a service to underserved communities, people of color, lower economic communities and a general diverse public by providing affordable ocean access. They also work with schools and non-profits to facilitate ocean access and learning about the marine environment. The raising of ticket prices, which will be necessary to comply with the rule, would be so substantial that these various underserved communities would not be able to afford to take their family aboard the CPFVs (or such vessels would be put out of business, effectively eliminating access), and it would limit school and non-profit opportunities for ocean access.

In this age of ensuring equitable ocean access to all communities within the state, the result of the removal of CPFV vessels from service and/or the raising of the prices substantially would limit access to many, with the disadvantaged communities and those who fish for sustenance suffering the largest impact. CARB makes no effort to assess the impact of the elimination of ocean access on marginalized communities, school children, non-profits, research operations, and people of color. The California DFW has information on the ethnic composition of anglers using CPFVs based on license sales; this information should have been used by CARB to analyze this issue. This is a major social justice issue that CARB has not considered or included in its analysis.

11. CARB Has Not Accessed the Impact on Harbors, Marinas and Landings

Many facilities have restrictions or limitations on the size of vessels docked. As the proposed rule will require larger metal vessels to accommodate larger engines and equipment, CARB has not accessed the construction costs associated with modifying or building larger slips or whether there is a sufficient inventory of available slips if businesses are forced to relocate. CARB has not incorporated these potential costs into operational costs for vessel owners or further impacts to passenger fees.

IV. UNANSWERED QUESTIONS

CARB's effort, analysis and transparency for this proposed rule is lacking in every area, which makes it impossible to adequately assess the contributions of CPFVs to emissions in regulated waters and evaluate the economic and social justice benefits of alternative methods to reduce emissions. CARB leaves so many unanswered questions that are critical in understanding the effects of the proposed rule that the existing proposal is at best arbitrary, based on preconceived notions of the staff and not supported by actual data. We have discussed many of these concepts above and with CARB directly, which as noted were ignored or dismissed in preparation of the proposed rule. In addition to the issues identified above, below we list many of the concerns with the lack of effort and the proposed rule in question format so that the breadth of CARB's omissions is painfully obvious.

A. CARB's Public Communications and Stakeholder Outreach has been Inadequate

Have the regulations proposed by CARB been implemented anywhere else in the United States? If not, why not?

Before mandating the regulations and untested technology on one of the largest fishing fleets in the country, would CARB consider financing the construction of a proto-type passenger sportfishing vessel to determine construction and operating costs, and potential threats to the safety of passengers and crew? If not, why wouldn't this be a prudent first step to developing emission regulations that are economically feasible and safe?

CARB's overall rule outreach and public notice has been inadequate. Did CARB reach out to the Golden Gate Fishermen's Association (GGFA), an organization that represents Northern California commercial passenger boat owners?

Did CARB convene a meeting with boat owners to determine if their application of Tier 4 engines and technology could safely and economically apply to passenger boats and fishing practices?

Has CARB notified all CPFV owners that their boats may be removed from service?

Why did CARB not accept offers to host in-person workshops from the associations representing CPFV owners?

As recommended by the associations, when CARB released its amended CHC regulations Sept. 21, 2021, did CARB send a letter to every boat owner requesting public comment and notifying them of the hearing (every engine is registered with CARB and commercial fishing licenses are filed with the California DFW)? If not, why not?

By CARB's own admission, sportfishing and whale watching boats constructed of wood and fiberglass will likely have to be removed from service. Has CARB communicated this to every boat owner? (Over 80% of boats are constructed of wood and fiberglass, and no determination has been made that existing metal boats can comply.)

B. CARB's Consultation with and Consideration of the Impact on Vessel Owners has not been Sufficient or Transparent

Did CARB consult with boat manufacturers on replacement costs? If yes, who and how many?

Since the technology has not been developed for passenger boats yet, how does CARB know the true capital and operational cost of Tier 4 engines, DPFs and other add-ons necessary to accommodate this equipment, and the cost of new custom boats to house untested equipment?

CARB believes that increasing passenger ticket prices can cover the cost of new boats and has calculated a ticket price increase that will be needed. Has CARB completed a market analysis to see if that ticket price could be supported? If so, will this information be released publicly?

For CARB to conclude that increasing prices was a viable option they would have had to had access to (many) boat owners' business records. Did they?

CARB's economic analysis concluded that if boat owners could not pass on higher passenger ticket prices to customers, some boat owners could go out of business. What is CARB's estimate of the number of businesses that will go out of business and the impacts that will occur due to these business closings? Where is this analysis?

In CARB's analysis, what was the price point or how much of an increase would anglers and families accept before choosing to do something else with their recreational dollars?

Did CARB consult with the California Department of Fish and Wildlife (CDFW) to determine what impact fewer passenger boats or higher prices would have on fishing participation rates, both today and in the future? What impact would declining fishing license sales and revenue have on fishery and conservations programs administered by CDFW and boater safety programs with the Department of Boating and Waterways?

C. CARB's Economic Analysis (SRIA) is Incomplete

If CARB underestimated the cost of new boats and the ability to increase prices, what was CARB's analysis on the impact to small businesses?

How did CARB assess the impact of business closings on jobs?

How did CARB assess the impact of business closing on the economy of the ports and port communities, including taxes, fees, etc. and where is that analysis?

How did CARB assess the impact of business closing on tourism and if so, which tourism organizations were publicly noticed and consulted?

Governor Gavin Newsom has made restoring the half of 1.2 million hospitality and tourism jobs lost during the COVID-19 pandemic an economic priority. Has CARB consulted with the

Governor's economic advisors to determine the potential job loss associated with fewer commercial passenger boats in service?

How did CARB assess the impact of businesses closing on fees paid to federal and state agencies who license and regulate these boats?

Did CARB contact any passengers that commonly use these boats, especially those from disadvantaged communities, to confirm that they could afford these increases in ticket prices? Where is the information regarding that exercise? If such efforts were not undertaken, why not?

How has CARB in its analysis accounted for the fact that most boat owners have existing loans on their boats that would have to be paid off regardless of if the boat has no or limited resale value?

How does CARB differentiate its consideration of new regulations for cargo ships and other large harbor crafts owned by large corporations and publicly traded companies contrasted against passenger fishing boats operated by small family businesses?

What concerns are considered by CARB when implementing regulations that disproportionately impact small business owners?

Carl Moyer Funds can only be used for engines and not vessel replacement. Given the boat owners are being asked to purchase highly advanced vessels with costly equipment and technology, should Carl Moyer Funds be expanded to include vessel replacement?

CARB has suggested CPFV owners could still use grant funding to offset costs. Did CARB provide a detailed analysis of how this would work, when the owners could use these funds, how this would work with the time extensions in the rule, whether vessels might still have to be replaced after grant funding was used for engine repowers, and whether there was enough money available?

CARB acknowledges that if a boat is no longer compliant, it will have no resale value in California. How confident is CARB that a boat owner can finance a new boat without the ability to sell their existing boat at market value (their businesses most valuable asset)?

Did CARB consult with any boat lenders to determine what barriers boat owners could experience as they try to finance a new boat? If not, why not?

Existing boats may have little value in other states/countries, especially if the market is flooded with new vessels. Is there market demand for 174 used passenger boats? If so, in what states and countries did CARB determine a sufficient market is available?

What has CARB done to ensure sufficient grants and funding opportunities are available to these relatively small number of family-owned businesses?

What has CARB proposed to support the ancillary businesses that depend on CPFV operations, so they are not put out of business in the name of exceedingly modest theoretical (and hypothetical) public health gains?

D. The Time Extensions Available Under the Regulation are Insufficiently Defined and Could Prove Illusory as a Hedge Against Technological Unavailability and Economic Infeasibility

In CARB's (Sept. 21, 2021) amended draft regulations, it expanded the possibility of moving the compliance deadline, from three 2-year extensions to four 2-year extensions for some vessels. Given the uncertainty surrounding technological development, the significant economic impact of purchasing new vessels, impacts to ticket prices and decreased ridership, it matters whether a boat owner could actually benefit from any extension.

Under certain scenarios a vessel owner would have to replace their existing vessel within 6-months. How did CARB determine that a new vessel could be financed, constructed, and deployed within this time frame?

Why did CARB not define the extension criteria to allow a reasonable assessment or forward-looking projection by a vessel owner?

What is CARB going to consider in reviewing the financial statements of a boat owner in considering whether to grant an extension?

What is the amount of profit that CARB believes is appropriate for a boat owner? What criteria will be used?

How will "affordability" be defined?

What assumptions has CARB made about ticket price demand elasticity? How high does CARB believe ticket prices can be raised before demand and participation suffer?

Will CARB deny an extension if a boat owner does not raise ticket prices to what CARB believes would be an appropriate level?

What recourse and protection will owners have if depressed demand at increased prices precludes owners from recouping upgrade investment costs?

How did CARB determine that vessel owners can financially afford to upgrade their existing vessels without grant funds (\$350,000 - \$400,000) and spend over \$61,000 to prepare paperwork for the hopes of a two-year extension and finance new boat construction over a similar timeframe?

For vessels that would not have to be replaced within 6-months, how did CARB determine that with no more than two-years notice that new vessels can be financed, constructed and deployed?

E. Fairness Mitigates Against Imposing the strict CHC regulations while the Economy is Still Emerging from a Generational Pandemic

Is it fair to impose these costly regulations before boat owners can recover their losses from the COVID-19 pandemic shutdowns? Some boat owners are heavily leveraged from their businesses being shut down during the pandemic. A boat owner could find themselves in the position of paying bank notes on two boats, even though only one is generating revenue.

F. It is Not Appropriate to Push Forward Regulations Which Require Installation of Unavailable Technology While Serious Questions About Safety and Feasibility Remain Unanswered.

The CHC rules as drafted will require installation and use of DPFs, which are commonly found on tractor trailers and farm equipment. Have DPFs been used on passenger boats before? Are they safe for passenger harbor crafts? Have they been tested on passenger fishing boats and whale watching boats that typically operate at low RPMs? If so, where, and when, and for how long? Please provide the research.

It is not uncommon in the trucking industry for DPFs to become clogged, requiring the trucks to leave the road and “regenerate” the DPF. The circumstances would differ vastly for a vessel miles from shore or in a narrow harbor. What evaluation has CARB made of safety considerations involved if a DPF becomes clogged, stops working and needs to be regenerated while at sea? Boat owners are concerned that DPFs could stall engines at sea and in the worst case, catch fire. Has CARB evaluated these concerns? <https://www.nbcbayarea.com/news/local/bay-legal-truckers-sue-ca-again-claiming-air-filter-puts-public-safety-at-risk/36208/>

Has CARB conducted any research into the safety of DPFs at sea? Please share the information.

Have safety concerns associated with the use of DPFs been raised before? If so, please share the circumstances.

Has CARB evaluated the risk of stalled engines, especially if vessels are near shore and entering/exiting harbors, and most notably during high winds and seas?

Has CARB provided the Cal Maritime report to the USCG and solicited its input? (The Cal Maritime report says that the technology does not exist for sportfishing and commercial fishing boats and if it did, it would be unsafe).

If the USCG determines that DPFs are not safe at sea, will CARB revise the regulations and, if so, how?

Should CARB be permitted to develop and impose regulations that are economically and technologically infeasible, requiring technology that is unavailable, not tested for the prescribed use, or proven as safe or practical for CPFVs?

G. It is Not Appropriate to Impose Regulations Requiring Costly Diesel Engine Upgrades Without Addressing the Relationship to and Context of Contemplated Zero Emissions Standards and a Reasonable Time Frame to Achieve a Capital Return on Upgrade Investments

If a boat owner can finance a new boat, what is the likelihood that their new boat will have to be replaced by 2035 or 2045 when the Governor's Climate Change policies (carbon neutral if feasible) takes effect? How will that accommodate an ability of owners now to know they can recoup their investment in upgraded technology that could become functionally obsolete in less than 15 years?

What is the basis for CARB's belief that fossil-fuel burning engines can be replaced with electric engines fueled by batteries or hydrogen to achieve equivalent performance with less environmental damage?

Has CARB conducted any research that electric motors will not invite stability or safety issues, and whether the technology can sufficiently support fishing practices, including multi-day long distance trips?

<https://www.marinelink.com/news/hybrid-tour-boat-catches-fire-norway-485995>

For those that replace their boats, how confident is CARB that the larger steel boats will be appropriate for conversion to a hybrid or zero emission system? Wouldn't vessels constructed of lighter materials be more appropriate for battery or hydrogen-based propulsion systems?

H. CARB's Analysis Ignores the Deleterious Impact on Coastal/Disadvantaged Communities that Rely on CPFV Vessels for Employment and Otherwise Unattainable Access to the Ocean and Its Resources Which Has Spurred Concerns and Broad Support for the CPFV Fleet Throughout the State

CARB's economic analysis acknowledges that the regulations could put some boat owners out of business, but what reverberative impact will boats going out of business have on coastal economies that depend on sportfishing and whale watching for visitor spending? For example, coastal Los Angeles, Orange and San Diego Counties have some of the largest sportfishing and whale watching fleets in the State and, together with myriad ancillary and support businesses, serve patrons from throughout the state and across the country.

The California Travel Association and over 20 coastal chambers of commerce and tourism authorities are concerned about the economic impacts on communities that depend on boats to generate visitor spending. See www.savefishing.com/coalition

In CARB's analysis, what were the concluded impacts to the small ports and communities along the central and northern coasts if boats go out of business?

Did CARB evaluate the impact of many boats and businesses going out of service on government fees and the funding of various environmental programs on which those fees are used?

Members of the State Legislature wrote CARB stating, "Commercial Passenger Fishing Vessels (CPFV), also known as charter fishing vessels, are a critical part of coastal economies and community recovery. These businesses are the primary means by which the public, including disadvantaged communities, who do not themselves own a boat, nonetheless have access to the living marine resources of our state through fishing and whale watching. CPFV operators collaborate in research and marine education. Federal, state, and university researchers (including students) utilize, often at no cost, access to CPFV to conduct research on the health of marine waters and fisheries. In addition, vessel owners work with schools and nonprofits (including Title 1 schools, disadvantaged youth, and veterans) to provide education and access to many that would not be able to access our marine environment any other way.

While the Legislature has prioritized the health and wellbeing of Californians by directing CARB to take prudent action to reduce airborne toxins within our state, the Legislature also demanded the actions be prudent and balanced, through implementation of programs that are 'practicable' (HSC §39650(k)) as well as 'cost-effective, and technologically feasible' (HSC §43013(a))." How has CARB satisfied that directive?

Given that most Californians do not have the luxury of owning a recreational boat, does CARB agree it has a responsibility to consider potential negative monetary and non-monetary impacts of its regulations on non-profits, educational programs, and disadvantaged and lower income communities?

Does CARB believe the proposed regulation are practical, cost effective and technologically feasible if the outcome is significant economic damage, loss of jobs and limiting access to offshore fishing and marine life observation?

I. It is Illogical and Arbitrary to Separate CFVs from and Give them Far Less Onerous Treatment over the Smaller Similarly Situated CPFV Fleet

There are 1,199 commercial fishing boats and only 174 commercially inspected sportfishing/whale watching boats; why are boats that have identical engines held to different emission standards?

Cal Maritime Academy raised nearly identical issues regarding technological availability and safety for CFV and CPFV, why was this CARB commissioned report ignored as it applies to CPFVs in preparation of the rule?

Many CPFV also conduct commercial fishing operations, what is the application of the rule to vessels that conduct both types of operations?

What analysis was conducted on CFV and CPFV to understand the economics of each industry?

Historically, CARB commercial and passenger boats were in the same vessel category, regulated in the same manner. The proposed regulations would remove passenger boats. Was this decision political? Who made this decision? What analysis was done to support the decision?

We have been told that the offshore nature of commercial fishing operations contributed to the differentiation but many if not the majority of those operations occur near shore targeting lobster, crab, squid, and bait fish, among other things. Near-shore operations may well constitute a larger percentage of commercial fishing than CPFV operations.

Why will commercial fishing boats continue to have access to Carl Moyer funding (State grants) that help subsidized the cost of repowering to lower emission engines and passenger sportfishing/whale watching boats will be denied or have more restricted access once the regulations are adopted?

Given that passenger boats represent only 10% of all harbor crafts, why not return them to the same vessel category as commercial fishing boats?

Commercial fishing vessels and CPFVs were categorized together and treated equivalently in the last CHC regulations 10 years ago. Why was commercial fishing separated from CPFV before the first iteration of the current rulemaking was even announced and published? Has CARB made available to the public all communications and discussions regarding what led to that differentiation? If not, please provide.

J. The CHC Rules are predicated on Health Benefits that are Disproportionately Isolated to Communities Where the Impact from CPFV Operations Are Minimal; Conversely the Impact of the Regulations Disproportionately Burdens CPFV Operations Where the Projected Benefits are Fractionally Attenuated

Has CARB assessed the fact that 50% of the inspected CPFVs are located in San Diego County, but that CARB's own analysis suggests only 7% of the health benefits occur in San Diego County. The rule therefore creates a disproportionate impact on this vessel category compared to its contributions, especially the limited contributions in environmental justice communities.

Has CARB completed a detailed air modeling and risk assessment in San Diego County where the majority of the CPFVs reside and operate? If not, why not?

Why did CARB ignore requests to use accurate logbook data that is available for every vessel?

Given a boat owner has established that his vessel's operating times in regulated waters are overstated by 5 times by CARB's model and his data will be reflective of 50% of the fleet, does CARB plan to revisit requests to use logbook data that accurately reflect where vessels operate?

V. RECOMMENDATIONS

A. The Following General Considerations Should Guide Review of the Proposed Rule

We appreciate your consideration of these concerns. Our members, as identified are small business owners, but they also are residents and citizens of these vibrant communities, which will be impacted by any proposed regulations. While sharing the common goal of a cleaner environment, they seek to do so thoughtfully, mindful of the myriad considerations, and challenges, both economic and technical to be overcome as well as the effects of those decisions on our customers and the social access programs that we support. To that end, we have developed a set of recommendations that we believe harmonize CARB's goals and the realities faced by the CPFV, coastal communities, and those that depend on the industry for affordable access to the oceans we all love. On behalf of CPFV's throughout the state of California, SAC and GGFA recommend the following modifications to the current CHC amendment.

- That inspected CPFVs continue to be considered "Fishing Vessels" and receive the same compliance deadlines as the Commercial Fishing Vessels (CFVs), with Tier 2 serving as final compliance – which staff purposely drafted in a manner to continue to allow CFV's continued access to grant funds. Tier 0 and Tier 1 engines will follow the proposed replacement and low usage exemption requirements. This will result in a logical, consistent path for commercial fishing vessels and CPFVs to reduce their emissions while still being able to overcome the financial hardship of repowers to Tier 3. Grant money would be available to all vessels regardless of operational area and is the appropriate path to finance the repowers vs. putting a boat out of business. Many CPFVs are already Tier 3 and over 26 are scheduled for Tier 3 repowers just in the South Coast in the next two-years (if applications are approved). The repower boatyard serving L.A. and Long Beach areas indicate that 100% of the 15 CPFVs in that area have already converted to Tier 3.
- That diesel-powered six-pack boats be left out of this rule. Most of these boats are part-time operations with smaller engines and limited use. Their inclusion puts them at a serious financial disadvantage compared to their gasoline-powered counterparts. We believe there are roughly 20 diesel powered boats that operate full-time.
- That Opacity testing requirements be eliminated. These requirements are cumbersome, and a majority of our operators will not have the capacity or resources to complete this task.
- That Fee Schedules be removed from the rule as the sector is financially challenged and will be for many years due to the pandemic.
- That CARB initiate a thorough outreach campaign for all California Fishing Vessels. SAC and GGFA have offered several recommendations on how this can be completed more effectively.

B. SAC/GGFA's Specific Proposal to CARB for the Contemplated CHC Rule

Beyond the general recommendations above, SAC/GGFA also recommend the following specific implementation measures:

CARB contract with the Cal Maritime Academy to establish an advisory committee to receive input on vessel design and operation for the various operational needs off the California Coast. CARB fund the Cal Maritime Academy to use the input of the Advisory Committee to design, build and deploy a minimum of four test vessels of different configurations to operate out of California ports for a minimum of seven years. The Cal Maritime Academy would contract with existing vessel owners to operate the test vessels, and CARB would cover all costs not covered by ticket prices, including any liability arising from the failure of the test vessel.

The CPFV fleet has already accomplished significant emission reductions through the use of the CMP where it is available. The recommendations in this letter to remove the barriers to the use of the CMP and to provide full access to the maximum grants for the entire fleet would result in additional emission reductions. Additionally, following the previous recommendations for developing fleet data would allow CARB to put forth an accurate and transparent characterization of the contributions from the CPFV fleet, which is currently lacking.

We look forward to CARB fulfilling our requests for appropriate outreach so that all individuals potentially impacted by the proposed rule can be heard. Once again, we would extend the offer to host an in-person workshop for CARB to discuss the content of this letter in the coastal communities of interest.

Please do not hesitate to contact us if we can be of service or answer questions.



Ken Franke
President
Sportfishing Association of California



Rick Powers
President
Golden Gate Fishermen's Association

Attachments:

Southwick and Associates
Considine & Considine, CPAs
FAQs

NOTE: The following chart is drawn from CARB's own published data which demonstrably overstates emissions from CPFV.

NOx Current (tons per day)	2010 inventory	2020 inventory	% of total statewide emissions	as fraction	2035 projection
State-wide total: all sources	2321	1421			1139
All ocean-going vessels	204	225	15.83%	0.158339	
Recreational boats	19	15	1.06%	0.010556	
Vessels Excluded from CHC regs*		240	16.89%	0.168895	
All CHC state-wide (2023 baseline)	67	16	1.13%	0.011260	
CPFV state-wide (2023 baseline)	11	1.5	0.11%	0.001056	
Congestion excess: South Coast Port (CARB Sept 2021 Estimate) --7.5 vessels; 7 is everything else (trucks, cranes, etc)		14.5	1.02%	0.010204	
CHC South Coast Basin (2023 baseline)		4.5	0.32%	0.003167	

*cargo ships plus recreational boats

Projected CHC Rule Emission Reductions (after 2038--15 yrs) -Projected baseline 2035 state-wide emissions = 1139 tons/day	1139 tons/day	Net reduction by 2038	% of proj. emissions	emission reduction as fraction	% CHC reductions
All CA CHC (1.1 of 8.3 ton reduction would occur without rule)		8.3	0.73%	0.00729	
CHC South Coast (proj. reduction without rule not ascertained)		2.4	0.21%	0.00211	28.92%
CPFV Statewide (proj. reduction without rule not ascertained)		0.83	0.07%	0.00073	10.00%
CPFV South Coast (proj. reduction without rule not ascertained)		0.25	0.02%	0.00022	3.01%

EXHIBIT 1

A large group of approximately 25 people, including men, women, and children, are posing on the deck of a white boat with a blue stripe. Many are wearing face masks and making peace signs. The boat is on the water, and other sailboats are visible in the background under a clear blue sky. The boat's name 'DOLPHIN' is written in large blue letters on its side, with 'SAN DIEGO, CA' below it. A yellow and blue buoy is visible on the right.

DOLPHIN

SAN DIEGO, CA







IDENTIFICATION OF COMMON GROUND FISH SPECIES (for Central and Southern California) <small>Anglers are responsible for knowing current fishing regulations, which can change frequently. Check the state website for up-to-date information.</small>			
Black Rockfish  <small>Large mouth, black mottled with gold, olive, black, black stripes on the head and trunk.</small>	Blue Rockfish  <small>Small mouth, black mottled with gold, olive, black, black stripes on the head and trunk.</small>	Golden Rockfish  <small>Small mouth, black mottled with gold, olive, black, black stripes on the head and trunk.</small>	Black & Yellow Rockfish  <small>Small mouth, black mottled with gold, olive, black, black stripes on the head and trunk.</small>
Brown Rockfish  <small>Small mouth, black mottled with gold, olive, black, black stripes on the head and trunk.</small>	Yellowtail Rockfish  <small>Small mouth, black mottled with gold, olive, black, black stripes on the head and trunk.</small>	Olive Rockfish  <small>Small mouth, black mottled with gold, olive, black, black stripes on the head and trunk.</small>	Copper Rockfish  <small>Small mouth, black mottled with gold, olive, black, black stripes on the head and trunk.</small>
Trefish  <small>Small mouth, black mottled with gold, olive, black, black stripes on the head and trunk.</small>	Grass Rockfish  <small>Small mouth, black mottled with gold, olive, black, black stripes on the head and trunk.</small>	Key Rockfish  <small>Small mouth, black mottled with gold, olive, black, black stripes on the head and trunk.</small>	
Starry Rockfish  <small>Small mouth, black mottled with gold, olive, black, black stripes on the head and trunk.</small>	Red Rockfish  <small>Small mouth, black mottled with gold, olive, black, black stripes on the head and trunk.</small>	Striped Rockfish  <small>Small mouth, black mottled with gold, olive, black, black stripes on the head and trunk.</small>	









November 15, 2021

Ms. Liane Randolph, Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: CHC2021 – Economic Feasibility of Vessel Replacement for Passenger Sportfishing
and Whale Watching Boats

Dear Ms. Randolph:

Please let me begin by sharing my credentials. Since founding the business in 1990, we have specialized in economic research regarding fishing, hunting and outdoor recreation. We have conducted many hundreds of sportfishing economic studies, including numerous examinations of marine sportfishing issues in California. This background provides us in-depth expertise into the motivations, spending and roadblocks associated with sportfishing participation and their associated jobs, tax revenues and other economic concerns. Based on this experience, the rest of this letter provides my comments and observations regarding CARB's proposed engine emission regulations for commercial passenger harbor crafts, commonly associated with sportfishing, whale watching and scuba diving.

Background:

On September 21, 2001, the California Air Resources Board (CARB) released amendments to the proposed Commercial Harbor Craft Regulations designed to reduce diesel engine emissions. These regulations, if adopted, would require engines and technology that may not fit existing vessels' engine rooms. As a result, and CARB admits, vessel replacement would be likely.

CARB contends that boat replacement is economically feasible, costing approximately \$2.1 million for a new, compliant vessel. To finance these vessels, CARB reports passenger ticket prices would have to increase. CARB does not report how their cost estimates were calculated or if they consulted with vessel owners or builders regarding the costs for new, compliant vessels. CARB acknowledges that even at their projected vessel cost, not every boat owner can afford a new vessel or pass on the full cost increase to their passengers and that some business loss is likely.

Given the lack of data behind CARB's statements, several key questions arise:

1. What are the actual costs to business owners to purchase a new, compliant vessel?
2. Will any price increases required to purchase new vessels impact fishing participation?
3. Will there be any impact on fisheries management and state conservation efforts?
4. Will any communities experience greater burdens than others? and,
5. What is the expected impact to the State economy?

To answer these questions, the Sportfishing Association of California retained Southwick Associates. Following is a summary of our findings.

1. What are the actual costs to business owners to purchase a new, compliant vessel?

To establish whether CARB's expected costs to purchase a new, compliant vessel are correct, a Certified Public Accountant (CPA) with marine industry experience evaluated construction bids for two commercial vessels that were designed to comply with CARB's proposed rules (attached). The Class 1 and Class 2 bids (attached) reflect two of the most common passenger sportfishing vessels found off the California coast, with a Class 1 vessel that can be configured for whale watching, eco-tourism and scuba diving excursions.

CARB's *Standard Regulatory Impact Assessment* (SRIA) economic analysis estimated the average replacement cost for a commercially inspected passenger sportfishing vessel to be \$2.1 million, financed with passenger ticket price increases of \$39.78 (or 27% increase) for a single-day trip and \$37.05 (or 19% increase) for a multi-day trip on a per passenger per day basis. Their economic analysis does not reveal how CARB assessed the \$2.1 million value, whether they sought bids from reputable boat builders and if they applied the projected construction costs to real boat operating budgets. To ensure reliable, defensible data are used to assess the true impacts of the proposed amendments, H&M Landing of San Diego did exactly that.¹

Two construction bids were received by H&M Landing (attached). One was for \$4.6 million to construct a 65 ft one-day vessel (Class 1, suitable for day fishing trips, whale watching and SCUBA excursions) and \$5.7 million for an 80 ft multi-day vessel (Class 2). These costs are magnitudes greater than CARB's estimate of \$2.1 million per vessel. According to the CPA report, based on the operating budgets of current H&M landing boats, to break even, businesses replacing a Class 1 boat would have to increase prices for a one-day fishing trip from \$180 to \$542 (201% increase) and a new Class 2 boat that provides multi-day fishing trips would have to increase its prices from \$200 to \$394 (97% increase). These price increases are significantly higher than the 19% to 27% increases anticipated by CARB.

The CPA's analysis also underscores the financing challenges facing boat owners. The CPA notes that 20% - 40% is a commonly required down payment within the marine industry. Considering existing non-compliant boats will have no resale value in California and the glut of boats to be sold will depress markets outside of California, businesses will find it difficult to sell their current boats and secure down payments on new vessels, thus raising the risk for banks. Banks would have to demand higher down payments and/or higher rates. Without feasible financing, many vessel operators will shut down.

2. Will any price increases required to purchase new vessels impact participation?

It is noteworthy to mention that CARB assumes CPF vessels would maintain their current passenger loads in the face of price increases. Expecting passenger demand to remain unchanged in face of price increases is wrong. At Southwick Associates, we have examined impacts on fishing license sales resulting from price increases for over 40 states. Price increases can include the price of the actual license, fuel prices (boat and auto), the hassles associated with poor weather, and more. The following are examples from these previous analyses:

Oklahoma:

- a. In 2019, a \$1 (or 5%) increase in resident annual fishing licenses would result in a loss of 7,924 anglers and a decline in license sales of 1.2%:

¹ H&M Landing in San Diego operates 30 CPF vessels.

- The statistical models custom built for Oklahoma's license sales show that a 100% increase in price would cause resident participation to decrease over 22%, while a 200% increase would result in a 44% decline in participation.
- b. A \$1 increase in Oklahoma's nonresident annual fishing license would result in a loss of 1,342 visitors, which equates to a 4% decline in sales.
 - Further statistical modeling shows that a 100% increase in price would cause non-resident participation to decrease to nearly zero.

Tennessee:

- a. In 2018, a 10% increase in the basic fishing/hunting license² would result in a loss of 6,149 anglers which means a 2% decline in license sales:
 - Tennessee's statistical models show that a 100% increase in price would cause resident participation to decrease 20%, while a 200% increase would result in a 40% decline in participation.
- b. A 10% increase in Tennessee's nonresident annual fishing license would result in a loss of 1,482 visitors, which equates to a 4% decline in nonresident license sales.
 - Further statistical modeling shows that a 100% increase in price would cause non-resident participation to decrease 37%.

Oregon:

- a. In 2013, a \$1 (or 3%) increase in the price of the resident annual fishing license would result in a loss of 5,711 anglers which means a 2.3% decline in sales:
 - The statistical models custom built for Oregon license sales show that a 100% increase in price would cause resident participation to decrease to 74%, while a 200% increase would decrease participation to nearly zero.
- b. A \$1 increase in the \$106.25 annual fishing license would cause a 1.1% sales decline.
 - Further statistical modeling shows that a 100% increase in price would cause non-resident annual license sales to decrease to nearly zero.
 - Considering Oregon's annual nonresident fishing license is priced similar to a one-day CPF vessel trip, we tested the effects of CARB's suggested price increases. At these levels, Oregon's annual license sales would fall over 40%.

Results of other states are also available. Across the board, the statistical models show that price has a significant effect on fishing participation. **While small increases might be absorbed, increases of 97% to 201% as required for operators to replace CPF vessels would cause annual passenger volume to decline severely.** Even if CARB's regulatory costs could be passed on with a 19-27% passenger price increase, the proposed regulations could reduce passenger volume by nearly half, per the Oregon data.

Please note that it is possible to measure the effects of price increases on California's license sales. The necessary license data are in possession of the California Department of Fish and Wildlife. CARB's economic analysis (SRIA) does not refer to any effort to conduct this basic statistical assessment.

3. Will there be any impact on fisheries management and state conservation efforts?

Fisheries management is largely dependent upon the sale of fishing licenses. Every adult angler aboard a CPF vessel is required to possess a California marine fishing license, generating significant fisheries conservation revenues. The total revenues attributable to CPF vessels are calculated for 2018, which is

² Tennessee does not sell a standard fishing-only license to residents. Users must purchase a combination fishing/hunting license.

the same year examined by the professional CPA financial assessment regarding CARB's potential financial burden on CPF vessel operators:

- The California Department of Fish and Wildlife reports 1,776,844 resident and nonresident fishing licenses were sold in 2018 with revenues of \$59,876,070.³ This equates to \$58.95 per license sold.
- The professional CPA documented the annual revenue for two California CPF vessels. The average annual revenue for both vessels in 2018 was \$457,760.
- The typical fees paid by their customers range from \$60 for 1/2 day trip to \$800 for a 2.5 day trip.⁴ Across all types of trips, the average fee paid per customer is estimated to be \$287.75.⁵
- Dividing the average annual revenue by the average fee per customer yields an average of 1,986 passengers per vessel each year. With 75% of passengers expected to be repeat users, each vessel is estimated to generate 497 license sales annually.
- At an average of \$58.95 per license sold, each vessel represents \$29,298 in annual license revenue to the State of California.
- With 174 CPF vessels operating in California,⁶ and considering the assumptions stated above, the California Department of Fish and Game receives \$5,097,852 annually from license sales to CPF vessel customers which represents 8.5% of its annual sport fishing license receipts.

Another potential ramification to conservation funding relates to a possible reduction in federal funds received by the State for fisheries conservation. This fund, known as the Federal Aid in Sport Fish Restoration fund, allocated \$16.5 million to California in 2018. Funds are received from the wholesale fishing tackle and motorboat fuel sales, then allocated across states based on a formula accounting for each state's number of licensed anglers and water area. The final apportionments vary each year based on the total funds available and the number of licensed anglers across states. In 2018, California received \$10.30 for each licensed angler.⁷ Considering there are 174 active vessels, each generating on average 497 license sales annually, CPF vessels account for roughly 86,478 license buyers who represented \$890,723 in federal fisheries conservation funds in 2018. A reduction in their numbers could directly threaten California's future federal funding allocations.

4. Will any communities experience greater burdens than others?

Basic demographic data are shared first:

- The U.S. Fish and Wildlife Service (USFWS) reports 43 percent of anglers had an average household income under \$75,000, identical to the average U.S. household (43%).⁸
- Likewise, according to the USFWS, 48% of anglers were under the age of 45, while 47% of the U.S. population was under 45 years of age.
- While anglers are under-represented among Hispanics, the Recreational Boating and Fishing Foundation (RBFF) reports Hispanic participation is growing rapidly, with 13% having

³ <https://wildlife.ca.gov/Licensing/Statistics#SportFishingLicenses>

⁴ Personal communications with H&M Landing in San Diego from where 30 CPF vessels operate.

⁵ The proportion of trips across these four categories was obtained via personal communications with H&M Landing in San Diego: ½ day = 45%, full-day = 18%, overnight = 15% and multi-day = 22%.

⁶ Per SAC estimate of USCG commercially inspected vessels, based on CFW data.

⁷ For FY2018, California received \$16,513,733. When divided by California's sale of 1,603,626 licenses as certified by the USFWS, this equals \$10.30 in federal revenue per license sold.

⁸ Angler income obtained from the 2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation., U.S. Fish and Wildlife Service, 2018. US median income obtained from <https://www.census.gov/library/publications/2017/demo/p60-259.html>.

participated in fishing in 2020, the highest participation rate yet recorded. Nearly one in 10 Hispanics participated in fishing for the first-time last year. In the past ten years, the number of U.S. Hispanics who went fishing grew 55% from 3.1 million to 4.8 million.⁹

A common misperception is anglers are disproportionately wealthy and will accept higher prices to continue to fish. The Federal statistics shared above show anglers are not wealthy compared to the U.S. population and likely comprise just as many young families as found anywhere else. Considering prices for boats that can safely access the ocean generally start at \$75,000, the only affordable means for many lower-income segments of California's communities to access the ocean are via CPF vessels.

Expecting lower-income communities of California to bear severe price increases and not decrease their use of CPF vessels is certainly not reasonable.

Please note that data does exist pinpointing where anglers live. License data held by the California Department of Fish and Wildlife contains purchasers' zip codes. These data can be used to generate plot maps showing where anglers live, including the percentage living in lower income neighborhoods. Such assessments have apparently not been conducted, yet should be to better determine the potential burden placed on lower income communities.

5. What is the expected impact to the State economy?

Per page 110 of CARB's economic analysis (SRIA), July 7th, 2021:

"...However, staff cannot rule out the possibility of some business elimination if costs cannot be pass on to the customer or if passing through costs would result in a significant decrease in demand."

Earlier, it was shown that many customers will stop using CPF vessels if prices are increased. **Any assumption that costs can be fully or even partially passed along to customers without decreasing participation is simply wrong. If boat operators were in a position to charge higher prices, just like any business, they already would have. Without a doubt, price increases will harm CPF vessel operators and likewise the local communities that depend on them.**

Decreased participation means decreased spending on CPF vessels, which in turns harms the economy:

- As shown earlier, the average fee paid per customer is estimated at \$287.75 while the average number of paying customers per vessel is 1,986 annually.¹⁰
- With 174 vessels in service, 345,564 passenger trips occur annually.
- With an average of \$287.75 per trip, annual fees paid to access CPF vessels in California is \$99,436,041.
- According to the most recent economic impact data for marine fishing in California¹¹, for each dollar spent by anglers, the following multipliers take effect:
 - .000015 jobs are supported
 - 38 cents in income is generated for California residents
 - \$1.59 in value-added, or contributions to GDP, are provided
 - And according to an additional source, 14 cents in state tax revenues¹²

⁹ 2021 Special Report on Fishing. Recreational Boating and Fishing Foundation (RBFF) and the Outdoor Industries Foundation (OIF).

¹⁰ The proportion of trips across these four categories was obtained via personal communications with H&M Landings of San Diego who operates 30 vessels, plus their website regarding prices.

¹¹ National Marine Fisheries Service. 2021. Fisheries Economics of the United States, 2017. U.S. Dept. of Commerce, NOAA Tech. Memo. NMFS-F/SPO-219

¹² Southwick Associates. Sportfishing in America: An Economic Force for Conservation. Produced for the American Sportfishing Association (ASA) under a U.S. Fish and Wildlife Service (USFWS) Sport Fish Restoration grant (F12AP00137, VA M-26-R) awarded by the Association of Fish and Wildlife Agencies (AFWA), 2012.

- Therefore, considering anglers annually spend \$99,436,041 to access CPF vessels, the following benefits are created for California's economy:
 - 1,492 jobs
 - \$37,785,696 in income (salaries, wages and small business profits)
 - \$158,103,305 in GDP contributions to California's economy, and
 - \$13,921,046 in lost state tax revenues.

The economic impacts are greater than just the fees paid to CPF vessel operators. Passengers also spend money traveling to and from the marinas, often staying in hotels before or after their trip while also purchasing food at local restaurants along with outdoor clothing and more. According to research based on data from the U.S. Census Bureau, for every dollar anglers spend on guides and CPF vessels, another \$19.77 are spent on other travel items such as lodging, food and more. How much is spent specifically by CPF customers on travel items is not known, but are certainly significant and would add much more to the CPF sector's economic impacts reported above.

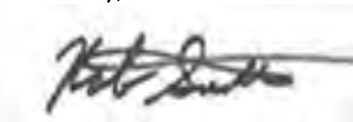
California's tourism sector will also be affected. According to the U.S. Department of Commerce, nearly 10% of California's marine anglers are out-of-state residents.¹³ Their exclusion will harm California's tourism industry.

Summary:

CARB clearly does not understand nor did not take time to learn about the affected vessels' operations and business environment, nor understands the demographics, motivations and financial abilities of these vessels' customers. Assuming the customers of the affected vessels, who commonly hail from lower income environments, will simply accept higher prices and not decrease their days of fishing is absurd. If passed as proposed, the amendments will significantly reduce the dollars received by California for oceans and fisheries conservation, impact lower income communities the most, and cost the state economy nearly 1,500 jobs, \$37.8 million in income and over \$13 million in state tax revenues.

In conclusion, we find serious shortcomings in CARB's statements and claims as presented in its economic analysis (SRIA). We offer our insights based on the best data available and our years of experience. We kindly request that the State of California carefully considers these potential impacts before making decisions that can potentially harm businesses, their employees and California residents who want to access the ocean. Thank you.

Sincerely,



Rob Southwick
President
Rob@SouthwickAssociates.com

¹³ ¹³ National Marine Fisheries Service. 2021. Fisheries Economics of the United States, 2017. U.S. Dept. of Commerce, NOAA Tech. Memo. NMFS-F/SPO-219

CONSIDINE CONSIDINE
CERTIFIED PUBLIC ACCOUNTANTS

November 10, 2021

Frank Ursitti
H&M Landing
2803 Emerson Street
San Diego, CA 92106

Dear Mr. Ursitti,

As a partner in the attestation group of Considine and Considine for 35 years, I have worked with many marine entertainment-based event businesses and significant marine industry activity. Considine and Considine is a San Diego-based public accounting firm in operation since 1947 with approximately 90 staff.

In response to new engine emission rules proposed by the California Air Resources Board (CARB) that will likely require commercially inspected passenger boats to be replaced in the coming years, H & M Landing sought a cash analysis to determine the financial impact of different scenarios that would result from the purchase of a Class 1 (65 ft) vessel or Class 2 (80 ft) vessel.

This analysis is in response to the CARB statements in the *Standard Regulatory Impact Assessment* (SRIA) and associated cost spreadsheet that replacement vessels are projected to cost an average of \$2.1 million and can be financed with passenger ticket price increases of \$28.03/day (or 19% increase) and \$26.09/multi-day (or 14% increase).

Our firm was retained to answer the following questions for each vessel:

- 1) What would be the impact to cash flow using CARB's suggested ticket price increase percentages?
- 2) What increase in ticket prices would be required for a vessel owner to achieve break-even cash flow (no profit)?

Methodology:

From a reputable ship builder, the client secured bids for commercial passenger vessels that commonly operate off the coast of California, a Class 1 65 ft local/coastal (day trip) vessel and a Class 2 80 ft multi-day vessel. The ship builder believes that the new vessels would meet the requirements of CARB's proposed rule and be able to accommodate the mandated engines and equipment when approved for marine use.

Earning Your Trust Since 1946

8989 RIO SAN DIEGO DRIVE, SUITE 250 • SAN DIEGO, CA 92108
TEL 619-231-1977 • FAX 619-231-8244 • www.ccepa.com

The cash flow analyses are based on estimated operating expenses provided by client of in-service vessels and existing daily customer rates. There are two vessels under consideration, one a \$4.6 million build cost related to a Class 1 coastal local experience vessel with an expected 15-person capacity; the Class 2 multi-day vessel would be a larger offshore multi day vessel with estimated construction cost of \$5.7 million with an expected 25-person capacity. We used the year 2018 as the base year, a period that proceeded the COVID-19 pandemic that required operations to be suspended, and assumed vessels operated at 100% of capacity on all trips.

The cash analyses are based on constant dollars with no inflation factor built in. Increasing costs are based on statutory rates or market forces. Inflation impact on revenue and expenses are expected to net to near zero and have not been included in the cash analyses to provide a more simple straightforward effective way to demonstrate the cost of acquiring major new fixed asset vessels to cash flow.

Each vessel analysis has two cash flow schedules the first based on a 14% price increase in the year of acquisition for the vessel and a 1% increase in real dollars each year thereafter ending at 10 years. The second analysis demonstrates the pricing levels necessary to break even on cash flow for the acquisition. While breakeven is not an acceptable long-term business model it does provide guidance to the expected pricing increases that would be necessary to reset a fleet with new qualified vessels.

The financing terms on the acquisition of new vessels are expected to be at 6% interest over a 20-year repayment life with a down payment of approximately 10% to be sourced from a potential resell value of existing equipment. These terms are likely optimistic for several reasons. First, the resale value of existing vessels may be difficult given that they will not meet new emission standards and have no resale value, requiring the vessels to be transferred overseas or across the U.S. Second, our experience demonstrates that banks are unlikely to finance 90% of the cost of a new vessel given down payments of 20%-40% are common for these types of vessels. Third, the analysis assigns no cost to the pay-off of a capital note on the existing vessel and it is unlikely that the full resale value of the existing vessel would be fully available for a down payment as it would be the security for the existing note. And lastly, the vessel owners will be required to convert the vessels to zero emission well within the useful life of the capital investment at an unknown but potentially significant cost meaning banks will want the loan to mature over a shorter period or will further reduce the percentage of the vessel that can be financed.

Conclusion

H&M Landing (current vs. future prices)

	Passenger Ticket for Existing Vessel	Passenger Ticket for CARB Compliant Vessel
Class One (Day) 15-passengers	\$180	\$542
Class Two (Multi Day) 25-passengers	\$200	\$394

Class 1 Coastal Vessel (65 feet): As the cash flow analysis demonstrates the \$4.6 million boat acquisition with 10% deposit would produce a **negative** cash position over 10 years of \$ 2,826,304. For this boat to breakeven, passenger prices would have to increase threefold or be increased by 200%.

Class 2 Multi-Day Vessel (80 feet): The cash flow results based on the \$5.7 million purchase with a 10% deposit would produce a \$ 3,047,600 **negative** cash at the end of 10 years and for this boat to breakeven, passenger prices would have to nearly double or be increased by 97%.

The four cash flow analyses attached to this letter demonstrate the trajectory business owners will face given high cost of replacement vessels. Modeling suggests revenue increases to support the cost of new build will be extremely aggressive.

In my experience with marine recreation, the sudden and significant cost increase would both reduce the pool of those that can access the service and the frequency of returning customers. This challenge will be even greater for the most common smaller passenger vessel category (Class 1), notably half to one-day coastal vessels that serve anglers, whale watchers and divers. This would affect the ability to finance a vessel as would the uncertainty regarding future investments necessary to achieve zero emissions. Banks may view any extensions granted by CARB negatively as it would shorten the period of capital recovery and thereby require additional increases in ticket prices to achieve sustainable revenues.

Very truly yours,

Considine & Considine

PHILIP R. SMITH

Certified Public Accountant

PRS/Alli

Charter Boat Analysis

Class 1 (65ft) Vessel (Local/Coastal)

\$360,000 Down Payment, 20-Year Payoff, 6.00%

Cost: \$4,600,000

Revenues

	2022 Year 1	2023 Year 2	2024 Year 3	2025 Year 4	2026 Year 5	2027 Year 6	2028 Year 7	2029 Year 8	2030 Year 9	2031 Year 10
Existing Day Rate/Person	\$ 180	\$ 180	\$ 180	\$ 180	\$ 180	\$ 180	\$ 180	\$ 180	\$ 180	\$ 180
Rate Increase	1.00	1.14	1.15	1.16	1.17	1.18	1.19	1.20	1.21	1.22
Boat Capacity	10	15	15	15	15	15	15	15	15	15
Days of Operation/Year	116	116	116	116	116	116	116	116	116	116
Revenues	\$ 208,800	\$ 357,048	\$ 360,180	\$ 363,312	\$ 366,444	\$ 369,576	\$ 372,708	\$ 375,840	\$ 378,972	\$ 382,104

Operating Costs

Fees	\$ 62,640	\$ 107,114	\$ 108,054	\$ 108,994	\$ 109,933	\$ 110,873	\$ 111,812	\$ 112,752	\$ 113,692	\$ 114,631
Utilities	\$ 511	\$ 511	\$ 511	\$ 511	\$ 511	\$ 511	\$ 511	\$ 511	\$ 511	\$ 511
Advertising	\$ 6,264	\$ 10,711	\$ 10,805	\$ 10,899	\$ 10,993	\$ 11,087	\$ 11,181	\$ 11,275	\$ 11,369	\$ 11,463
Labor	\$ 37,979	\$ 39,118	\$ 40,292	\$ 41,501	\$ 42,746	\$ 44,028	\$ 45,349	\$ 46,709	\$ 48,111	\$ 49,554
Maintenance	\$ 25,056	\$ 42,846	\$ 43,222	\$ 43,597	\$ 43,973	\$ 44,349	\$ 44,725	\$ 45,101	\$ 45,477	\$ 45,852
Fuel	\$ 73,000	\$ 73,000	\$ 73,000	\$ 73,000	\$ 73,000	\$ 73,000	\$ 73,000	\$ 73,000	\$ 73,000	\$ 73,000
Insurance	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000
Total expense	\$ 213,450	\$ 281,301	\$ 283,884	\$ 286,502	\$ 289,156	\$ 291,848	\$ 294,579	\$ 297,348	\$ 300,159	\$ 303,012
Operating income	\$ (4,650)	\$ 75,747	\$ 76,296	\$ 76,810	\$ 77,288	\$ 77,728	\$ 78,129	\$ 78,492	\$ 78,813	\$ 79,092
% of Gross	-2%	21%	21%	21%	21%	21%	21%	21%	21%	21%

Expenses Resulting from Purchase

New Vessel Interest	\$ -	\$ 230,638	\$ 244,937	\$ 237,561	\$ 229,730	\$ 221,417	\$ 212,591	\$ 203,220	\$ 193,271	\$ 182,709
New Vessel Property Tax	\$ -	\$ 46,000	\$ 42,167	\$ 38,653	\$ 35,432	\$ 32,479	\$ 29,772	\$ 27,291	\$ 25,017	\$ 22,932
Net Income (Loss)	\$ (4,650)	\$ (200,891)	\$ (210,807)	\$ (199,404)	\$ (187,875)	\$ (176,168)	\$ (164,234)	\$ (152,020)	\$ (139,476)	\$ (126,549)
% of Net	-2%	-56%	-59%	-55%	-51%	-48%	-44%	-40%	-37%	-33%
Cash Beginning	30,000	25,350	(279,046)	(609,437)	(935,800)	(1,258,465)	(1,577,736)	(1,893,899)	(2,207,219)	(2,517,944)
Net Income	(4,650)	(200,891)	(210,807)	(199,404)	(187,875)	(176,168)	(164,234)	(152,020)	(139,476)	(126,549)
Loan Payoff	-	(103,505)	(119,584)	(126,959)	(134,790)	(143,103)	(151,930)	(161,300)	(171,249)	(181,811)
Capital Reserves	-	-	-	-	-	-	-	-	-	-
Net Sale Proceeds	-	360,000	-	-	-	-	-	-	-	-
Down Payment	-	(360,000)	-	-	-	-	-	-	-	-
Ending Cash	25,350	(279,046)	(609,437)	(935,800)	(1,258,465)	(1,577,736)	(1,893,899)	(2,207,219)	(2,517,944)	(2,826,304)

Class 1 (65ft) Vessel (Local/Coastal)
\$360,000 Down Payment, 20-Year Payoff, 6.00%
Cost: \$4,600,000

[illegible]

Charter Boat Analysis

Class 2 (80ft) Vessel (Full Day Islands/Offshore)

\$500,000 Down Payment, 20 Year Payoff, 6.00%

Cost: \$5,700,000

Revenues

	2022 Year 1	2023 Year 2	2024 Year 3	2025 Year 4	2026 Year 5	2027 Year 6	2028 Year 7	2029 Year 8	2030 Year 9	2031 Year 10
Existing Day Rate/Person	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200
Rate Increase	1.00	1.14	1.15	1.16	1.17	1.18	1.19	1.20	1.21	1.22
Boat Capacity	25	25	25	25	25	25	25	25	25	25
Days of Operation/Year	162	162	162	162	162	162	162	162	162	162
Revenues	\$ 810,000	\$ 923,400	\$ 931,500	\$ 939,600	\$ 947,700	\$ 955,800	\$ 963,900	\$ 972,000	\$ 980,100	\$ 988,200

Operating Costs

Fees	\$ 243,000	\$ 277,020	\$ 279,450	\$ 281,880	\$ 284,310	\$ 286,740	\$ 289,170	\$ 291,600	\$ 294,030	\$ 296,460
Utilities	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500
Advertising	\$ 24,300	\$ 27,702	\$ 27,945	\$ 28,188	\$ 28,431	\$ 28,674	\$ 28,917	\$ 29,160	\$ 29,403	\$ 29,646
Labor	\$ 117,938	\$ 121,476	\$ 125,120	\$ 128,874	\$ 132,740	\$ 136,722	\$ 140,824	\$ 145,049	\$ 149,400	\$ 153,882
Maintenance	\$ 97,200	\$ 110,808	\$ 111,780	\$ 112,752	\$ 113,724	\$ 114,696	\$ 115,668	\$ 116,640	\$ 117,612	\$ 118,584
Fuel	\$ 228,906	\$ 228,906	\$ 228,906	\$ 228,906	\$ 228,906	\$ 228,906	\$ 228,906	\$ 228,906	\$ 228,906	\$ 228,906
Insurance	\$ 26,000	\$ 26,000	\$ 26,000	\$ 26,000	\$ 26,000	\$ 26,000	\$ 26,000	\$ 26,000	\$ 26,000	\$ 26,000
Total expense	\$ 739,844	\$ 794,412	\$ 801,701	\$ 809,100	\$ 816,611	\$ 824,238	\$ 831,985	\$ 839,855	\$ 847,851	\$ 855,978
Operating Income	\$ 70,156	\$ 128,988	\$ 129,799	\$ 130,500	\$ 131,089	\$ 131,562	\$ 131,915	\$ 132,145	\$ 132,249	\$ 132,222
% of Gross	9%	14%	14%	14%	14%	14%	14%	14%	13%	13%

Expenses Resulting from Purchase

New Vessel Interest	-	282,858	300,394	291,348	281,745	271,549	260,724	249,232	237,031	224,077
New Vessel Property Tax	-	57,000	52,250	47,500	42,750	38,000	33,250	28,500	23,750	19,000
Net Income (Loss)	70,156	(210,870)	(222,845)	(208,348)	(193,406)	(177,988)	(162,060)	(145,587)	(128,532)	(110,855)
% of Net	9%	-23%	-24%	-22%	-20%	-19%	-17%	-15%	-13%	-11%
Cash Beginning	30,000	100,156	(237,655)	(607,159)	(971,212)	(1,329,927)	(1,683,418)	(2,031,806)	(2,375,214)	(2,713,769)
Net Income	70,156	(210,870)	(222,845)	(208,348)	(193,406)	(177,988)	(162,060)	(145,587)	(128,532)	(110,855)
Loan Payoff	-	(126,940)	(146,659)	(155,705)	(165,308)	(175,504)	(186,329)	(197,821)	(210,022)	(222,976)
Capital Reserves	-	-	-	-	-	-	-	-	-	-
Net Sale Proceeds	-	500,000.00	-	-	-	-	-	-	-	-
Down Payment	-	(500,000.00)	-	-	-	-	-	-	-	-
Ending Cash	\$ 100,156	\$ (237,655)	\$ (607,159)	\$ (971,212)	\$ (1,329,927)	\$ (1,683,418)	\$ (2,031,806)	\$ (2,375,214)	\$ (2,713,769)	\$ (3,047,600)

Cost: \$5,700,000

[illegible]



SOCAL Charter Vessel Specification

Proposed concept is to provide a diesel electric drive charter fishing/sightseeing vessel. The diesel electric design was chosen to “futureproof” the vessel to allow for upgrades to power system as new and more reliable technology becomes available. Electrical power is generated via multiple diesel generators, the decision was made to not use battery storage system due to the current inefficiency in energy storage.

Vessel to be designed and built to all class requirement (Sub-Chapter T, ABS etc)

100 Design & Structure

General

Length overall,	65'
Beam overall	22'
Crew	3 person
Passengers maximum	40 person
Fuel capacity, useable	2500 US gal.
Fresh water capacity	750 US gal.

Hull materials

- Option #1 Steel
- Option #2 Fiberglass
- Option #3 Aluminum

House design

- Material same as hull
- Interior dinning/seating area
- Galley for food preparation and concessions sales
- ADA compliant
 - Head
 - Doorway
 - Seating area
- Crew member berth and head w/ shower



SOCAL Charter Vessel Specification

200 Propulsion Systems

Propulsion to be provide by twin electrically powered azimuth pod type motors. This propulsion system combines steering along with propulsion making the vessel highly maneuverable and controllable. Electrical power is provide by multiple generators, operating together as power is required and shutting down during low power consumption operations(in/out port, trolling or “idling”)

Azimuth Thruster

- SCHOTTEL SRE
- EcoPeller 150 L-Drive
- 1200 mm Fixed Pitch Propeller
- Offshore duty rating
 - 3000 to 5500 annual thruster operating hours
- Freshwater cooled motor



Azimuth steering

- Electrical
- Steering time 10 seconds for 180°

Generators

- Three Northern Lights 300kw w/ SCR, DPF & wet exhaust
- Multiple generators to be started & paralleled as electrical demands increase
 - Utilize generator power efficiently to reduce, fuel consumption, noise and engine wear

300 Electrical Systems

Vessel is equipped with multiple electrical systems of AC & DC power. Electrical control cabinets are used to properly protect components and personnel. All systems to be grounded at one single point as required.

- Schneider frequency converts for control of propulsion motors
- Generator control systems
- Led lighting throughout vessel
- Generators individual start battery bank
- House emergency power battery bank
- Shore power connection 50 amp minimum



SOCAL Charter Vessel Specification

400 Command & Control Systems

Full suite of Furuno Navnet electronics system along with communication radios and satellite phone.
Schottel drive controls

Electronics

- Furuno radar radome
- Furuno radar open array
- Furuno Navnet system
- Dual GPS chart plotters
- Satellite phone
- Dual VHF
- Sideband radio
- Wesmar HD860 Color side-scanning sonar
- Fathometer
- Loud hailer
- PA system

Alarm system

- Bilge high water
- Fire
- Propulsion motors
- Generator monitoring



SOCAL Charter Vessel Specification

500 Auxiliary Systems

Auxiliary system components are selected for longevity and where possible duplicated between system to reduce spare requirements

- HVAC
 - TECHNICOLD CHILLED WATER MARINE AIR CONDITIONING
 - 90,000 btu
 - Multi zone system
 - Bridge
 - Galley
 - Mess deck
- RSW
 - Integrated Marine Systems 5 ton system
 - Electric drive
- Bait tanks
 - FWD
 - 300 gallon / 20 Scoop
 - AFT
 - 750 gallon / 50 scoop
 - Fish hold/rsw supplied
 - 1000 gallon/66 scoop
- Fish Hold
 - Multiple storage tanks
 - Size and configurations TBD
- Washdown pumps FWD & AFT
- Potable water
 - 750 gallon tank
 - Pressure pump
 - Hot water heater
- Waste system
 - 400 gal black water
 - 400 gal grey water
 - Deck pump out connection
- Bilge System
 - Individual bilge pumps located in all water tight compartments



SOCAL Charter Vessel Specification

600 Interior/Exterior Outfitting

All decking, paneling, cabinetry, and seating for passengers made of materials selected for ease of cleaning and durability

Galley & Concessions equipment

- Under counter top load Beverage cooler
 - 25 cases of bottles
- Refrigerator
- Flat top grill
- Vent hood
- Warming pan
- Coffee maker

Seating area

- ADA compliant doorway
- Easy clean booth type seating
 - ADA compliant section
- USB charging ports
- (2) 42 " flat screen TV's w/ dvd player
 - Optional satellite TV

Passenger heads

- Two individual heads
- ADA compliant
 - Doorway
 - Grab bar
 - Toilet height
- Easy clean with deck drain
- Raw water toilet

Insulation

- Passenger and pilot house areas to be thermally insulated
- Engine room to be acoustically insulated



SOCAL Charter Vessel Specification

600 Interior/Exterior Outfitting (CONT)

Crew Stateroom & head

- Separate from the guest areas
- Sleeping bunk
- Full head w/shower

Railing

- Continuous railing with movable sections as required for boarding
- Height TBD

Paint/gelcoat

- Paint
 - If vessel is steel or aluminum
- Gelcoat
 - If vessel is fiberglass

Decks

- All walkways and decks shall be covered in Nonskid

Windows

- All windows to be direct bonded frameless windows

Budgetary estimate

The budgetary Estimates for this vessel

- Diesel electric propulsion is \$4,600,000
- Conventional power package (diesel w/ shafts & props) \$4,200,000



SOCAL Charter Vessel Specification

Proposed concept is to provide a diesel electric drive charter fishing/sightseeing vessel. The diesel electric design was chosen to “futureproof” the vessel to allow for upgrades to power system as new and more reliable technology becomes available. Electrical power is generated via multiple diesel generators, the decision was made to not use battery storage system due to the current inefficiency in energy storage.

Vessel to be designed and built to all class requirement (Sub-Chapter T, ABS etc)

100 Design & Structure

General

Length overall,	80'
Beam overall	25
Crew	3 person
Passengers maximum	40 person
Fuel capacity, useable	3000 US gal.
Fresh water capacity	1000 US gal.

Hull materials

- Option #1 Steel
- Option #2 Fiberglass
- Option #3 Aluminum

House design

- Material same as hull
- Interior dinning/seating area
- Galley for food preparation and concessions sales
- ADA compliant
 - Head
 - Doorway
 - Seating area
- Crew member berth and head w/ shower
- 21 persons berthing spaces



SOCAL Charter Vessel Specification

200 Propulsion Systems

Propulsion to be provide by twin electrically powered azimuth pod type motors. This propulsion system combines steering along with propulsion making the vessel highly maneuverable and controllable.

Electrical power is provide by multiple generators, operating together as power is required and shutting down during low power consumption operations(in/out port, trolling or “idling”)

Azimuth Thruster

- SCHOTTEL SRE
- EcoPeller 150 L-Drive
- 1200 mm Fixed Pitch Propeller
- Offshore duty rating
 - 3000 to 5500 annual thruster operating hours
- Freshwater cooled motor



Azimuth steering

- Electrical
- Steering time 10 seconds for 180°

Generators

- Three Northern Lights 300kw w/ SCR, DPF & wet exhaust
- Multiple generators to be started & paralleled as electrical demands increase
 - Utilize generator power efficiently to reduce, fuel consumption, noise and engine wear

300 Electrical Systems

Vessel is equipped with multiple electrical systems of AC & DC power. Electrical control cabinets are used to properly protect components and personnel. All systems to be grounded at one single point as required.

- Schneider frequency converts for control of propulsion motors
- Generator control systems
- Led lighting throughout vessel
- Generators individual start battery bank
- House emergency power battery bank
- Shore power connection 50 amp minimum



SOCAL Charter Vessel Specification

400 Command & Control Systems

Full suite of Furuno Navnet electronics system along with communication radios and satellite phone.
Schottel drive controls

Electronics

- Furuno radar radome
- Furuno radar open array
- Furuno Navnet system
- Dual GPS chart plotters
- Satellite phone
- Dual VHF
- Sideband radio
- Wesmar HD860 Color side-scanning sonar
- Fathometer
- Loud hailer
- PA system

Alarm system

- Bilge high water
- Fire
- Propulsion motors
- Generator monitoring



SOCAL Charter Vessel Specification

500 Auxiliary Systems

Auxiliary system components are selected for longevity and where possible duplicated between system to reduce spare requirements

- HVAC
 - TECHNICOLD CHILLED WATER MARINE AIR CONDITIONING
 - 90,000 btu
 - Multi zone system
 - Bridge
 - Galley
 - Mess deck
- RSW
 - Integrated Marine Systems 10 ton system
 - Electric drive
- Bait tanks
 - FWD
 - 500 gallon / 33 Scoop
 - AFT
 - 1500 gallon / 100 scoop
 - Fish hold/rsw supplied
 - 2,500 gallon/167 scoop
- Fish Hold
 - Multiple storage tanks
 - Size and configurations TBD
- Washdown pumps FWD & AFT
- Potable water
 - 1000 gallon tank
 - Pressure pump
 - Hot water heater
- Waste system
 - 500 gal black water
 - 500 gal grey water
 - Deck pump out connection
 - Macerator pump and overboard connection
- Bilge System
 - Individual bilge pumps located in all water tight compartments



SOCAL Charter Vessel Specification

600 Interior/Exterior Outfitting

All decking, paneling, cabinetry, and seating for passengers made of materials selected for ease of cleaning and durability

Galley & Concessions equipment

- Under counter top load Beverage cooler
 - 25 cases of bottles
- Refrigerator
- Flat top grill
- Vent hood
- Warming pan
- Coffee maker

Seating area

- ADA compliant doorway
- Easy clean booth type seating
 - ADA compliant section
- USB charging ports
- (2) 42 " flat screen TV's w/ dvd player
 - Optional satellite TV

Passenger heads

- Two individual heads
- ADA compliant
 - Doorway
 - Grab bar
 - Toilet height
- Easy clean with deck drain
- Raw water toilet

Insulation

- Passenger and pilot house areas to be thermally insulated
- Engine room to be acoustically insulated



SOCAL Charter Vessel Specification

600 Interior/Exterior Outfitting (CONT)

Crew Stateroom & head

- Separate from the guest areas
- Sleeping bunk
- Full head w/shower

Passenger Berthing spaces

- Bunks for 21 passengers
- Emergency egress hatches & fire barriers as required

Railing

- Continuous railing with movable sections as required for boarding
- Height TBD

Paint/gelcoat

- Paint
 - If vessel is steel or aluminum
- Gelcoat
 - If vessel is fiberglass

Decks

- All walkways and decks shall be covered in Nonskid

Windows

- All windows to be direct bonded frameless windows

Budgetary estimate

The budgetary Estimates for this vessel

- Diesel electric propulsion is \$5,700,000
- Conventional power package (diesel w/ shafts & props) \$5,200,000



FAQ – Harbor Craft Rule and Commercial Passenger Vessel Impact

BACKGROUND

What is the CARB Harbor Craft rule?

There are several types of harbor craft in California, including crew and supply boats, fishing vessels, ferries, excursion vessels, tugboats, barges, dredges, and other vessel types. The Commercial Harbor Craft (CHC) Regulation was adopted in 2007 to reduce emissions of diesel particulate matter (PM), oxides of nitrogen (NOx), and Reactive Organic Gases (ROG) from diesel engines used on CHC operated in Regulated California Waters (within 24 nautical miles of the California coast). The rule was then amended in 2010 and will be fully implemented by the end of 2022. CARB is currently developing additional amendments to the CHC regulation. The proposed amendments would require Tier 4 engine technology and advanced retrofit emission control devices in CHC applications as well as other operational control strategies for reducing emissions.

How does the proposed rule affect commercial passenger fishing vessels?

In the past, the CARB fishing vessel sector included both commercial (boats that sell their fish to the public for food) and commercial passenger fishing vessels (CPFV) (boats that carry passengers who catch their own fish for food) as a single category. Both vessel types are licensed as commercial fishing vessels by the California Department of Fish and Wildlife. This new rule would separate these similar vessel types into two separate categories and require much stricter emissions guidelines for CPFV's. There are 1,199 commercial fishing vessels according to CARB in contrast to approximately 174 inspected CPFVs (352 total including six passenger boats).

How Many CPFV Vessels are Affected?

The inspected CPFV fleet numbers are approximately 174 vessels. Sportfishing boats can be found in many marinas from San Diego to the Oregon border. Per CARB, about 352 vessels are in the CPFV sector statewide. This includes uninspected 6 passenger boats with diesel engines, which may be affected by the proposed rule but not in the same way as CPFV. Six passenger boats with gasoline engines are not subject to the requirements in the proposed rule.

What is the recommendation of the CPFV community?

The ask of the CPFV community is to remain in the commercial fishing vessel sector, which has been given more time and less economically harmful and technically infeasible requirements under the proposed rule. This would result in the following factually defined and shared guidelines (quoted from CARB presentation, March 16, 2021), which apply to both commercial fishing and CPFVs:

“Requirements for Commercial Fishing Vessels • Unique offshore operations and industry economic considerations compared to other vessel categories • Due to larger population (38 percent of fleet), emissions reductions are still needed • Draft proposal would require Tier 2 or newer engine, phasing in between 2030 and 2032 • Later compliance schedule than other regulated in-use vessels to allow operators to maximize funding opportunities.”

INDUSTRY’S RECORD OF ENVIRONMENTAL COMPLIANCE

Do CPFV’s currently participate in emissions reductions programs?

Yes, for over a decade the fleet has participated extensively in the Carl Moyer grant program (and others) to replace older, less efficient engines, with newer emissions reducing engines. The high cost of repowering a vessel would have made it impossible for these small businesses to replace the older machinery without financing assistance through grant programs. It has been a huge success.

Will the CPFV fleet be able to continue to use grant programs like Carl Moyer once they are under this rule?

While commercial fishing vessels would still have access to the funds, charter sportfishing boats would not since the proposed rule would require these engines/controls to be installed for CPVFs. Carl Moyer grants cannot be obtained when engine or control system upgrades are required by a federal, state, or local regulation. Furthermore, Carl Moyer grants are presently not allowed for vessel replacements, which far outweighs the cost of the engines, and with the proposed regulation, nearly every CPFV will have to be replaced because they cannot be modified to accommodate the new engines and DPFs. CARB has indicated that boats may still have access to some grant funding for early compliance, but they have not clearly defined how that would work, how CPFVs could benefit from it, how that would jibe with the availability of Tier 4 engine or DPFs, and how it might affect the use of the available extensions under the rule. Also, funding is not a guarantee under Carl Moyer, so even if possible, CPFVs could get denied for funding or get a very small grant.

What other emissions reductions efforts has the fleet made?

Not only has the CPFV fleet been repowering as newer engines become available using grant programs, but they have also voluntarily connected to shore electrical power when in port for more than a short period of time.

MANDATED TECHNOLOGY DOES NOT EXIST OR PROVEN SAFE AT SEA

Can CPFV’s comply with installing Tier 4 engines?

The Cal Maritime report, commissioned by CARB, found that Tier 4 engines do not exist for commercial fishing or CPFVs. The lack of Tier 4 engines was confirmed by the engine manufacturers in a comment letter to CARB. If available, Tier 4 engines would also require the installation of diesel particulate filters (DPF) and/or diesel engine fluid (DEF) systems. This would require massive exhaust equipment to be installed, as well as DEF tanks. CARB has admitted that all fiberglass and wood CPFVs would have to be replaced since they could not be retrofitted with this equipment. CARB has suggested that time extensions are available due to the lack of availability or feasibility, but these extensions will not be indefinite as Tier 4 engines with DPFs for marine application are likely to be certified in the future.

When this happens, the extension would end per the time table in the rule, and every CPFV would have to be taken out of service by 2034 at the latest because they won't be able to accommodate the size of the engine and DPF equipment.

Is there an alternative to compliance in the absence of Tier 4 engines?

While the fleet is upgrading to cleaner engines and will continue to do so, CARB has proposed an alternative under special circumstances of Tier 3 engines plus a DPF for certain engine sizes that are in use for CPFVs. However, since this option still includes a DPF, vessel replacement would still be required as the existing vessels cannot accommodate new equipment that is large and bulky. Also, it is possible that the rule could require some boats to repower with the Tier 3 on existing vessels, but still be required to replace the vessels later when Tier 4's and DPFs become available and extensions run out.

Will boat owners have to change out engines twice over a 10-year period?

The Newsom Administration has set a goal of the state becoming carbon neutral by 2045 and in a July 7th letter to the chair of CARB, the Governor asked CARB to achieve this goal even sooner, by 2035. This would likely require all vessels to operate with electric motors supported by batteries or hydrogen. Boat owners question the merits of being required to build larger steel boats powered with new fossil fuel engines over the next two to six years if they will be mandated under the governor's proposal to replace their engines or boats once again once zero emission technology becomes feasible. This could create a worst-case scenario where CPFV owners will be required to scrap newly purchased boats and engines and replace their vessels and engines again for the second time.

Is the use of DPF and DEF systems feasible?

Operationally, financially, and structurally the alternative is not achievable on existing boats. Operationally it presents serious mechanical issues.

Operationally – CPFV's troll at slow speeds and the DPF would potentially plug up creating a mechanical failure situation when at sea with passengers. At best, the boat would be adrift until it could be repaired and restarted.

- **Financially** - The Tier 3 or 4 plus DPF/DEF would require reconstruction of the hulls. According to Cal Maritime, this will result in vessel instability (see below) and require up to a 42% reduction in passengers. As such, CARB has agreed that vessel replacement will be required for all wood and fiberglass CPFVs. CARB has suggested that the owners could simply increase ticket prices to pay for the vessel replacement. However, the increase in ticket prices to cover the cost of reconstruction would make tickets unaffordable for a large proportion of current customers impacting equitable ocean access opportunities, which would also affect the boat revenue due to loss of passengers. The elimination or limitation of grant fund eligibility exacerbates the financial impact that this will have on CPFV owners.
- **Structurally** – The Cal Maritime report expressed concern of vessel stability and heat from the engines and DPF systems which could start fires if a retrofit was attempted. The added weight of this equipment would require up to a 42% reduction in passenger carrying capacity to be safe. From a design standpoint, the existing fleet has been carefully vetted through a comprehensive process of United States Coast Guard approval prior to carrying passengers. The report raises

the same serious doubts for CPFV as it does for commercial fishing vessels as to if the structural redesign necessary to comply with this rule is technically achievable. Thus, CPFVs are only left with the extremely expensive option of vessel replacement, which will likely put many boat owners out of business.

Are there unresolved safety concerns?

There are unresolved safety concerns beyond removing and rebuilding the hulls. CARB wants the engines equipped with DPFs, the same technology appearing on trucks and off-road equipment that is causing extensive downtime for truckers and farmers. In order of a DPF to not become plugged, it must run at high rotations per minute (rpms), in stark contrast to fishing boats that typically troll for fish at low rpms. Blockage is quite common, creating significant heat and severe back pressure on engines, sometime taking hours to clear the blockage and restart engines. Under the best-case scenario boats could be adrift for hours as crews try to recover engine systems. More likely, at sea rescues would become common due to engine failure. At worst, the DPFs have been known to start fires in truck engines, which would result in a disaster at sea for crew and passengers if this happened on a CPFV. In a surprising omission, CARB did not develop the regulations in consultation with the U.S. Coast Guard that regulates the safety of passenger vessels.

ECONOMICALLY AND STRUCTURALLY UNFEASIBLE

If a vessel is not able to be modified or if the finances are such that it is unable to be financed, what will occur?

Under the proposed rule, CARB has stated that vessels must be removed from service at the conclusion of any approved extensions. The proposed rule would allow the Executive Officer at CARB to grant up to 8-years of extension for financial reasons (6 years for most boats); however, at the end of this period, the vessel would need to be taken out of service if it can't be retrofitted, which again is highly unlikely for CPFVs.

Has CARB concluded that wood and fiberglass vessels will have to be replaced?

Since over 80 percent of California sportfishing and whale watching boats are constructed of wood or fiberglass, this is a critical question. According to CARB's assessment, the answer is yes. Should the regulations become effective January 2023, boat owners will have to assess whether they can afford a steel vessel and if not, when to go out of business.

*"We, through this process, discussed the findings of the feasibility report from the California Maritime Academy and for some sectors are estimating that for vessels operating above the low use threshold that **vessel replacement will be likely, especially the categories with wood or fiberglass vessels** that can't be as easily reconfigured." - Public Workshop for the Proposed Amendments to the Commercial Harbor Craft Regulations, March 16, 2021*

CARB notes in their economic analysis that they believe only one of the CPFV fleet can be retrofitted, all 173 of the other vessels would need to be replaced.

On September 21st, CARB amended its proposed regulations. How does CARB's decision to extend three two-year extensions to four impact boat owners?

This change will have no material impact on boat owners. It just delays the inevitable for many, if not most, boat owners who will have to spend millions of dollars on replacement vessels when engine rooms cannot be structural or safely be modified for larger engines and equipment. Moreover, boat owners should not presume that they can claim every two years that it is impossible to comply for economic or technical reasons. As drafted, the standards for two-year extensions are complex and are designed to evolve as new technology comes onto the market. Every two years from as early as 2023 to 2034, CARB will make a determination whether they believe your existing boat can comply or have to be replaced.

Has CARB recommended how to pay to repower or replace the vessels?

Under the proposed rule, CARB would significantly reduce access to grants for CPFV while continuing to allow grants for commercial fishing vessels. CARB has recommended CPFV ticket prices be raised to cover this cost of repowering, modifying or replacing the vessels.

San Diego public television station KPBS asked CARB a similar question and reported August 9, 2021, that: If the regulations are adopted later this year, boat owners will have up to 9 years to make the change. CARB suggests that during that time, sportfishing businesses raise their prices in order to start saving money for a boat loan. [\(Article\)](#)

Will increased ticket prices impact ocean access?

In most cases, yes. The CPFV fleet provides a service to lower economic communities and general diverse public et al. They also work with schools and non-profits to facilitate ocean access and learning about the marine environment. The raising of ticket prices necessary to comply with the rule would have to be so substantial that people would not be able to afford to take their family aboard and it would limit school and non-profit opportunities. In this age of ensuring equitable ocean access to all communities within the state, the result of removal of these vessels from service and the raising of the prices substantially would limit access to many. Companies that have been here for decades would go out of business. CARB appears to agree.

“(CARB) staff cannot rule out the possibility of some business elimination if costs cannot be passed onto the customer or if passing through costs would result in significant decrease in demand.” - CARB, Standardized Regulatory Impact Assessment, July 7, 2021

CARB states the regulations are intended to reduce healthcare risks. Is CARB overstating the projected risks directly associated with sportfishing boats?

Some of CARB’s press statements conflate the overall projected health care benefits of ALL proposed harbor crafts and not specifically the 174 estimated passenger fishing vessels. Sportfishing and whale watching boats typically represent a very small portion (approx. 10%) of the harbor crafts found in most marinas and harbors. Further, CPFVs are not present in significant numbers within large ports that serve international vessels where CARB’s projected health benefits are greatest (e.g., Los Angeles and the San Francisco Bay Areas). For example, approximately 50% of the full-time USCG inspected CPFV’s operate from San Diego County; however, only approximately 7% of the expected health benefits occur in San Diego, which suggests that stringently regulated CPFVs will not have substantial health benefits with this

rule. Moreover, if such vessels pose such significant health care risks CARB would not have exempted 1,199 commercial fishing vessels from complying with the most stringent, risk-reducing portion of the regulations since their fleet has the highest emissions of all of the CHC.

CARB has tried to argue that one CPFV has the same emissions as 160 school buses. Is this true?

Regarding the school bus comparison, CARB is being disingenuous, bordering on propaganda, in making this comparison, with the sole goal of trying to make CPVFs look bad. This is because:

- They are comparing a modern school bus with DPF filter operating at 20 MPH to the maximum emissions allowed on a CPFV with two Tier 2 engines per vessel.
- Bus engines are smaller with less horsepower than the engines used on inspected CPFVs, so it is not an apples to apples comparison on engine capacity.
- Tier 4 engines are readily available for buses; they do not currently exist for CPFVs.
- CPFVs do not operate at maximum capacity; they troll for fish at low RPMs and sometimes even anchor or drift offshore on a single engine.
- CARB's assertion implies that all 352 vessels are operating with these emissions (as previously mentioned they are including six passenger boats to inflate the emissions from the CPFV category). This disregards the fact that many CPFVs already have Tier 3 engines, and even without the rule, all boats will eventually convert to Tier 3 and even Tier 4 in the future.
- These vessels are also not operating at or near a school, with children present, and not operating extensively near shore. Therefore, CARB is misleading on the health risk impacts from school buses versus CPVFs. An equivalent amount of emissions from a school bus will have a more direct and significant risk impact on human receptors, especially children, compared to boat emitted at sea.
- The use of a school bus is simply to create an emotional response to try to counteract our legitimate profiling of the work the fleet does with taking at risk kids, Title 1 schools, veterans organizations and others out to experience the ocean – where otherwise we they would not be able to enjoy the ocean.
- School bus upgrades have come at 100% taxpayer funded expense – is CARB offering to buy every owner a new boat? No, they are creating a mandate to take away or limit grant funds for upgrading existing vessels and buying new vessels.

REGULATORY TIMELINE AND MORE

When will CARB take action?

This past April the regulations were released in draft form. In October, **CARB will accept public comments through November 15th (new date) and consider adoption at the November 19, 2021 Board Meeting.** If the Board approves the draft regulations, they will go into effect January 1, 2023.

Where can I find additional information, fact sheets and related news?

Proposed regulations can be found at <https://ww2.arb.ca.gov/rulemaking/2021/chc2021>

Visit the project website at www.savefishing.com for fact sheets, media coverage and a list of business and trade organizations supporting the sportfishing community.

Sportfishing Association of California
5060 N. Harbor Drive, #165, San Diego, CA 92106
www.savefishing.com