STATE OF CALIFORNIA
FISH AND GAME COMMISSION
INITIAL STATEMENT OF REASONS FOR REGULATORY ACTION

Add Section 126.1 and Amend subsection 125.1(c)(3) and Section 126,
Title 14, California Code of Regulations
Re: Specifying Incidental Take Allowances for Crabs other than the Genus Cancer

I. Date of Initial Statement of Reasons: May 2, 2018

II. Dates and Locations of Scheduled Hearings:

(a) Notice Hearing: Date: June 20, 2018
Location: Sacramento, CA

(b) Adoption Hearing: Date: October 17, 2018
Location: Fresno, CA

III. Description of Regulatory Action:

(a) Statement of Specific Purpose of Regulation Change and Factual Basis for Determining that Regulation Change is Reasonably Necessary:

Under current law, commercial fishermen may incidentally take unlimited amounts of crabs not in the genus Cancer (non-Cancer crabs) when targeting rock crab, lobster, and Dungeness crab. The specific statutes and regulations include subdivision 8284(c), Fish and Game Code (FGC), and subsection 125.1(c), Title 14, California Code of Regulations (CCR) for rock crab, subdivision 8250.5(b), FGC, for lobster, and subdivision 8284(a), FGC, for Dungeness crab fisheries. The FGC provides a general definition of bycatch (incidental take) that does not give guidance on acceptable amounts (Section 90.5, FGC), but FGC and CCR sections on specific species and gear types do specify rules for retaining non-target species in some cases.

In recent years the Department of Fish and Wildlife (Department) has documented increasing landings of non-Cancer crabs. These species are intended to be taken only incidentally to the species subject to the permitted fishery. This increase is likely due to a combination of two reasons: 1) some fishermen are actively targeting non-Cancer crabs, and 2) non-Cancer crabs are more commonly retained as new markets and greater demand have developed. Regardless of cause, incidental take is often subject to little regulatory control. The lack of guidance on appropriate incidental amounts is allowing for increasing numbers of proportionally large landings of the incidental species. Specificity in incidental allowances is necessary to provide clarity and to prohibit the targeting of species for which appropriate safeguards against unsustainable practices have not been developed. Additionally, when these species do not meet the criteria for an “established fishery” defined in Section 7090, FGC, they are considered emerging fisheries, and upon determination from the Department Director, the Fish and

Game Commission (Commission) has authority to adopt management measures. The proposed regulations establish limits on the incidental take of non-Cancer crabs in the target invertebrate trap fisheries for which take is allowed.

Landings of non-Cancer crabs reached a level not previously observed of 155,000 pounds in 2016 (Figure 1). The species that the Department tracks include brown box crab (*Lopholithodes foraminatus*), armed box crab (*Platymera gaudichaudii*), California king crab (*Paralithodes californiensis*), and sheep crab (*Loxorhynchus grandis*, also known as spider crab). Little biological information exists for any of these species, making determination of sustainable harvest levels difficult. The increase in brown box crab (hereafter referred to as box crab) has been most noteworthy (Figure 2) and is primarily attributable to take in rock crab traps. However, substantial landings in Dungeness crab traps account for the peak seen in 2001. The Commission has received two formal requests for experimental gear permits (EGP) under authority of Section 8606, FGC, to target box crab and, at its December 2017 meeting, directed the Department to develop a proposal for EGPs. Department staff have also received queries from approximately 25 fishermen interested in applying for EGPs for box crab. As prescribed by the Marine Life Management Act (Sections 7050 et seq., FGC), the Department is obligated to sustainably manage the state's living marine resources. Therefore, as the landings of incidentally caught species rise to become emerging fisheries, the Department is obligated to collect the necessary information and recommend appropriate regulations to the Commission (Section 7090, FGC). Thus, precautionary limits for all non-Cancer species are proposed, and subsequent research to inform appropriate future management measures will be conducted as resources allow and prioritized by degree of conservation or management concern.

Department landings data for box crab beginning in 1981 show take with a variety of gear types across the state from Crescent City to San Diego. The number of fishermen landing box crabs has only modestly increased, highlighting relatively large landings as responsible for the overall increase (Figure 3). However, interest in targeting box crabs is expanding. Box crab landings began to increase during a period of record high landings of rock crab (Figure 4), perhaps reflecting development of new markets. Three years of unprecedented high landings in the rock crab fishery were followed by decline in 2016 and 2017. Rock crab fishery participants have communicated that in an effort to improve poor rock crab catch, some in the fishery are setting traps in deeper water than is typical for rock crab, resulting in increased incidental box crab catch.

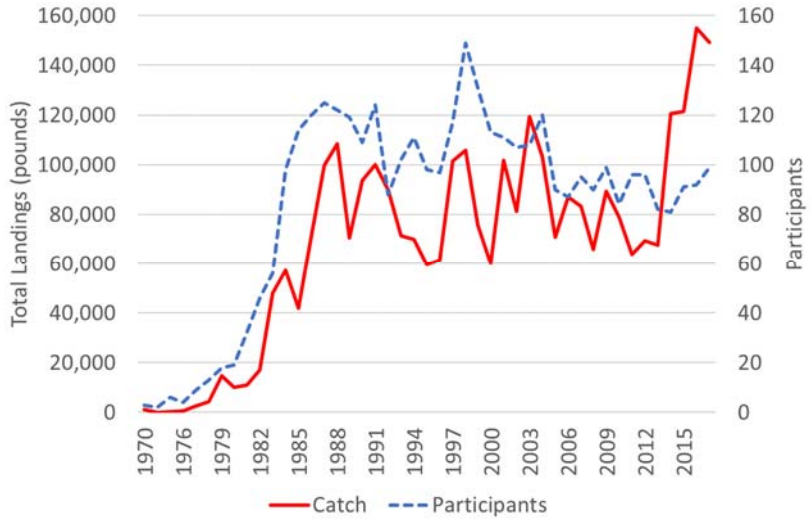

Figure 1. Total landings of non-Cancer crab (Brown box, California king, sheep, armed box) in pounds and number of individuals making landings (participants).

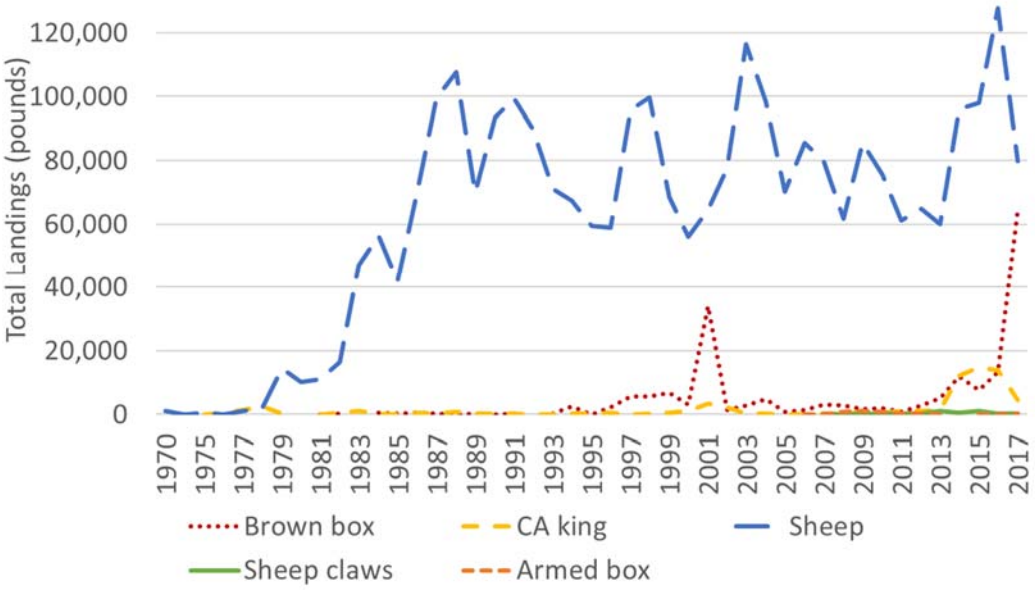

Figure 2. Non-Cancer crab landings by species (pounds).

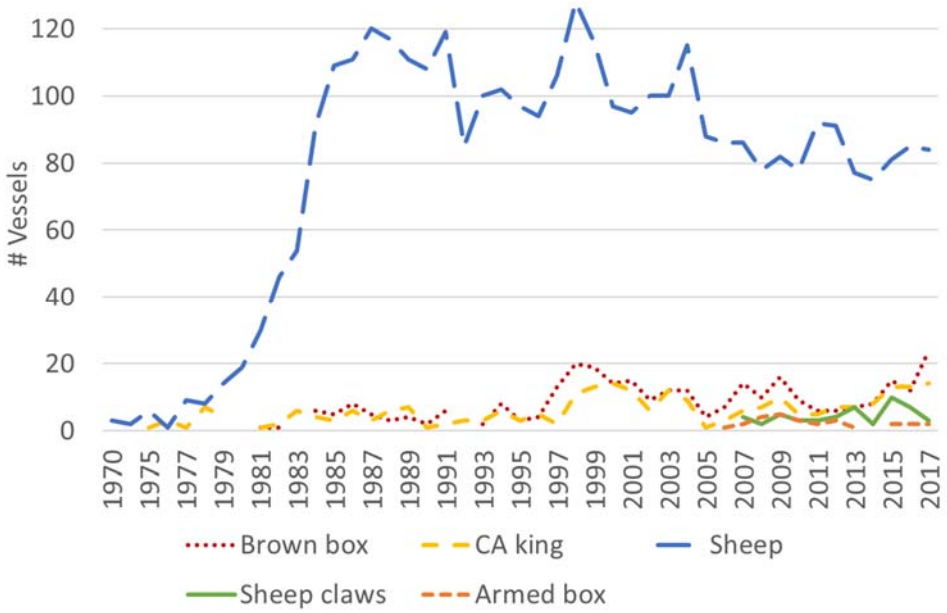

Figure 3. Number of vessels landing non-Cancer crabs by species.

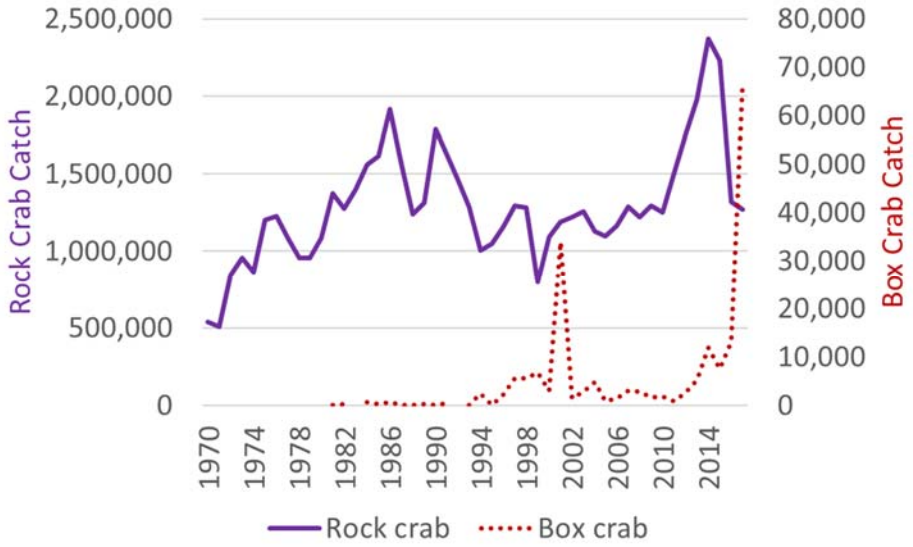

Figure 4. Total landings of rock crab and brown box crab (pounds).

Amend Section 126 and add Section 126.1

Proposed Changes

The proposed regulatory change would amend the existing Section 126, which currently applies to the commercial take of Tanner crab. The title of 126 would be changed to "Commercial Take of Crabs not in the Genus Cancer in Trap Gear." Tanner crab (*Chioneocetes* spp.) are non-Cancer crabs, and existing regulations regarding this fishery would be shifted to new

Section 126.1. The new Section 126 would contain the following subsections: (a) to define Cancer crabs, (b) to create landing limits for non-Cancer crabs taken incidental to other target species in trap gear, and (c) to require all crabs be landed prior to use as bait. Possession and landing of species in the Lithodidae family (box and king crabs) would be limited to no more than 25 pounds each. Additionally, when possessing or landing species in the Lithodidae family, an equal or greater amount of the target species (rock crab, lobster, or Dungeness crab) must also be possessed or landed. Sheep crab would be subject to a total allowable catch of 95,000 pounds annually.

Rationale

Catch of box and king crabs has increased in recent years and there is interest among fishermen in development of target fisheries. Little is known about these species. Therefore, a conservative landing limit is proposed while the feasibility of a target fishery is explored through an EGP program. The limited information available on habitat, past harvest, and reproductive biology also suggests precautionary limits are appropriate. Limiting catch of sheep crab to levels similar to the status quo will allow the Department to improve management and prevent potential future runaway incidental take.

Box and king crabs inhabit relatively deep water and range from Alaska and Monterey, respectively, to at least as far south as the Mexican border. Box crab typically inhabit depths between 550-1600 feet in California (Wicksten 1982), while California king crab inhabits a narrower range within those depths. Experimental fisheries for box crab have been tested in British Columbia and California (reviewed in Zhang (1999)) and in Washington (Daniel Ayres, Washington Department of Fish and Wildlife, personal communication), but none of these efforts developed into a sustained and directed commercial fishery. A limited developmental fishery existed in Oregon until 2009, and presently box crab may only be landed incidentally to Dungeness crab. In Oregon, landings tend to be modest and are driven by the availability of Dungeness crab.

Research in British Columbia waters has shown that females produce larvae only every other year (Duguid and Page 2011). This reproductive schedule may relate to occupation of a relatively deep, low-nutrient habitat. Additionally, female box and king crabs do not store sperm packets from male crabs. In Bracyuran crabs, this ability allows females to mate opportunistically and use the sperm to fertilize her eggs when the eggs are fully developed. In contrast, female box and king crabs must molt, extrude eggs, and mate to fertilize the eggs within a short space of time, requiring that a sufficient density of male crabs is available to ensure mating success. For these reasons, box crab may not represent a good candidate for commercial exploitation and particularly not a male-only fishery. It is possible that the species exhibits an accelerated reproductive schedule in California waters, but the necessary research has not been conducted.

The average landing amount of box crab through 2012 was approximately 100 pounds (Figure 5). A retrospective analysis of total annual landings if a 25-pound limit had been in place dramatically reduces total catch and, therefore, represents a very conservative limit (Figure 5). Box crab are generally in depths that do not overlap with other target invertebrate trap fisheries (i.e. past landings may not have been truly incidental). If a 25-pound limit had been in place, many of these landings may not have occurred at all because this amount would not have compensated for the need to set gear in more remote locations. The addition of a requirement to possess or land an equal or greater amount of the target species (rock crab, lobster or Dungeness crab) when possessing or landing Lithodid species (box or king crabs) is intended to clarify that take of Lithodid species is only to be incidental to these target species.

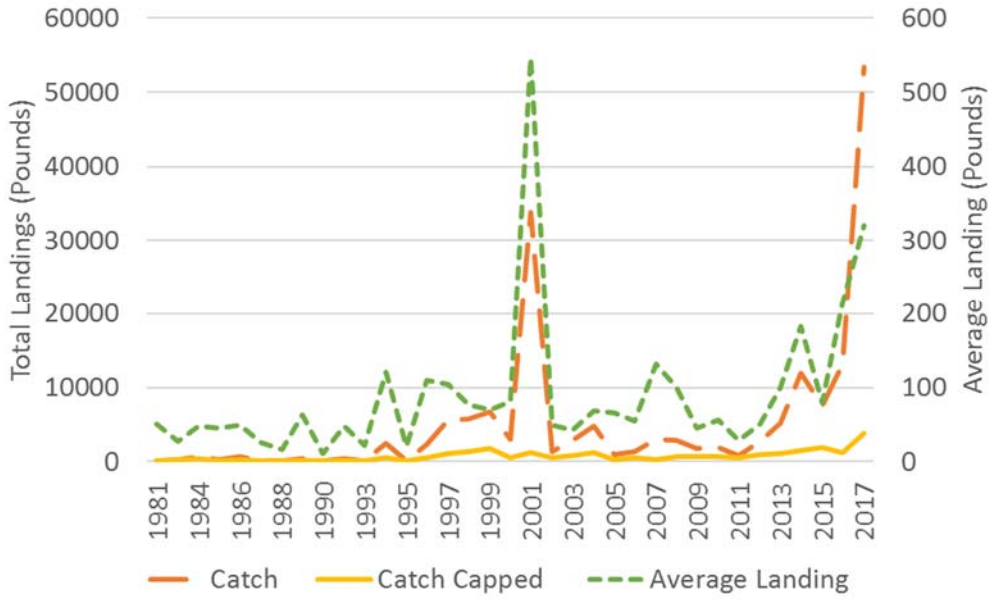

Figure 5. Total box crab catch (orange) and average landing amounts (green). Retrospective analysis of total box crab catch if a limit of 25 pounds per landing (yellow) had been in place.

The conservative limit for Lithodid crabs (box and king) is proposed for several reasons. The Department expects that the number of fishermen wishing to target box and king crab is likely to expand as new markets for the species have recently been developed and may expand further. Additionally, as noted above, little is known about the biology of these species, and organisms in these relatively deep-water habitats often exhibit slow growth and reproductive rates. Despite this, fisheries-independent trawl surveys conducted by NOAA to assess groundfish populations indicate there may be a high biomass of box crab off California that may support targeted take. Research associated with the EGP will be designed to improve biomass estimates and our understanding of life history characteristics. Maximizing allowable directed take of box crab through the EGP while remaining within a precautionary level will require maintaining low levels of incidental take.

Following completion of EGP research, allowable targeted and incidental take may be revised.

A total allowable catch (TAC) for sheep crab is intended to allow for higher landings of this species, which may be of less conservation concern. While also only taken as an "incidental" species, relatively large and stable catch levels of sheep crab have been observed since the 1980s (Figure 2). The stability of the catch indicates this level of take may be sustainable, and the shallower habitat of the species may be conducive to greater productivity. Additionally, sheep and rock crab were previously harvested for a combined-species, claw-only market. While the exact poundage of whole sheep crab harvest that may be attributed to that fishery is unknown, it was likely substantial in the 1980s and did not result in reduced productivity for the whole crab market (Figure 2).

The recommended TAC of 95,000 pounds is intended to allow for continued sheep crab catch similar to current levels but to prevent uncontrolled growth. Department landing records show an annual average of approximately 83,000 pounds of sheep crab was landed from 2013 to 2017. A calendar year was chosen for tracking the TAC both for simplicity and because total landings by month are not highly variable but are slightly lower near the end of the year. In some cases, sheep crab are caught at sea and used as bait in finfish traps within the same trip. Sheep crab used in this manner is not required to be landed. Thus, the volume is not reflected in catch records. A 15 percent increase was added to the average landed catch as an estimate of un-landed catch, resulting in a TAC of 95,000 pounds. The 15 percent estimate of un-landed catch used in calculating the 95,000-pound TAC for sheep crab represents the best professional judgement of the department's invertebrate fisheries staff, providing a reasonable initial metric for adaptive management that can be adjusted as more information becomes available. An accurate understanding of the total amount of sheep crab take will be necessary to implement the proposed TAC for sheep crab and for future efforts to assess and craft management measures for this, as well as all other non-Cancer crab species. Therefore, the Department is proposing a requirement for all non-Cancer crab to be brought ashore in the whole and recorded on landing receipts regardless of intended use. The proposed regulation would require individuals wishing to catch non-Cancer crabs for use as bait to return to port, land the crab, complete a landing receipt pursuant to subdivision 8047(a)(1), FGC, and then use the crab as bait on a subsequent trip. If desired, fishermen have the ability to issue a landing receipt to themselves pursuant to FGC Article 7 (commencing with section 8030) of Chapter 1. For enforcement purposes, fishermen would also be required to keep copies of landing receipts documenting the catch of crabs that are used as bait on the fishing vessel for a minimum of 30 days from the date of landing as listed on the landing receipt.

Amend Subsection 125.1(c)(3)

Proposed Regulations

The proposed regulatory change would amend subsection 125.1(c)(3), which details allowances for incidental take of other species when targeting rock crab. The incidental allowances would remain unchanged except for reference to the new subsection 126(b) specifying a limit on non-Cancer crabs.

Rationale

The addition of a reference to 126(b) is intended to provide clarity regarding non-Cancer crab incidental limits.

(b) Goals and Benefits of the Regulations

The Pacific Ocean and its rich marine living resources are of great environmental, economic, aesthetic, recreational, educational, scientific, nutritional, social, and historic importance to the people of California.

It is the policy of the state to ensure the conservation, sustainable use, and, where feasible, restoration of California's marine living resources for the benefit of all the citizens of the state. The objective of this policy include, but are not limited to, the following:

Conserve the health and diversity of marine ecosystems and marine living resources.

Allow and encourage only those activities and uses of marine living resources that are sustainable.

Recognize the importance to the economy and the culture of California of sustainable sport and commercial fisheries and the development of commercial aquaculture consistent with the marine living resource conservation policies of this part.

The proposed regulation benefits the environment by prohibiting the overexploitation of several non-Cancer crab species before adequate management measures could be developed for dedicated targeted fisheries. The proposed regulation will also allow for development of an experimental gear permit program for box and king crab designed to conduct research on species biology and potential appropriate management measures.

(c) Authority and Reference Sections from Fish and Game Code for Regulation:

Authority: Sections 713, 1050, 5508, 7090, 7857, 8026 and 8282, Fish and Game Code.
Reference: Sections 1050, 1052, 5508, 7050, 7051, 7055, 7056, 7058, 7090, 7850, 7857, 7881, 8026, 8031, 8040, 8041, 8042, 8043, 8046, 8047, 8051, 8250.5, 8275, 8281,8282, 8284, 8834, 9000, 9001, 9001.7,

9002, 9003, 9004, 9005, 9006, 9007, 9008 and 9011, Fish and Game Code.

(d) Specific Technology or Equipment Required by Regulatory Change:

None.

(e) Identification of Reports or Documents Supporting Regulation Change:

1. Duguid, W. D., & Page, L. R. (2011). Biennial reproduction with embryonic diapause in *Lopholithodes foraminatus* (Anomura: Lithodidae) from British Columbia waters. Invertebrate Biology, 130(1), 68-82.
2. Wicksten, M. K. 1982. Crustaceans from baited traps and gill nets off southern California. Calif. Fish and Game 68(4): 244-248.
3. Zhang, Z. Y., Workman, G. D., & Phillips, A. C. (1999). A review of the biology and fisheries of the box crab (*Lopholithodes foraminatus* Stimpson) in British Columbia. Fisheries & Oceans Canada, Canadian Stock Assessment Secretariat.
4. Memorandum, April 4, 2018, To: Valerie Termini, Executive Director of the Fish and Game Commission, From: Charlton H. Bonham, Director of the Department of Fish and Wildlife, Subject: Agenda Item for the June 20-21, 2018 Fish and Game Commission Meeting Re: Designation of the Harvest of Non-Cancer Crabs as an Emerging Fishery

(f) Public Discussions of Proposed Regulations Prior to Notice publication:

1. Fish and Game Commission, Marine Resource Committee meeting, November 9, 2017, Marina, CA

2. Meeting with crab and lobster fishery constituents, April 17, 2018, E.P. Foster Library, Ventura, CA

IV. Description of Reasonable Alternatives to Regulatory Action:

(a) Alternatives to Regulation Change:
<u>Possession and landing limit for all non-Cancer species combined</u>

A possession and landing limit for all non-Cancer species combined is a potential alternative to the proposed combination of a possession and landing limit for Lithodid species and a TAC for sheep crab. The Department initially proposed to constituents a 100-pound limit for all non-Cancer species combined and a more restrictive limit of 25 pounds for any Lithodid species within the 100 pounds. The larger limit was based on a long-term average landing amount of 80 pounds for sheep crab and was intended to allow for annual catch of sheep crab to continue within a range similar to previous observations. Crab fishermen noted that sheep crab landings are highly variable and a 100-pound limit may not allow for adequate range around the average which has a standard deviation of plus or minus 116 pounds. Additionally, the Department learned that individual landings amounts in the

catch records do not accurately reflect catch amounts as they are brought to the dock. Rather, they may reflect subsets of the catch that are landed in small increments after being held in receivers. Therefore, the true, larger catch amount is obscured from the records. Based on this constituent feedback, the Department recommends a TAC as a less restrictive and more effective tool for maintaining similar annual catches and business practices for fishermen harvesting sheep crab.

No other alternatives were identified by or brought to the attention of Commission staff that would have the same desired regulatory effect.

(b) No Change Alternative

The recent increase in landings of king crab and box crab with little to no management measures in place for these species is potentially damaging to the resource. Limits on incidental take of other non-Cancer crabs are important to prevent future uncontrolled take with insufficient management measures and limited information on these species.

V. Mitigation Measures Required by Regulatory Action:

The proposed regulatory action is expected to have no negative impact on the environment; therefore, no mitigation measures are needed.

VI. Impact of Regulatory Action:

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

(a) Significant Statewide Adverse Economic Impact Directly Affecting Businesses, Including the Ability of California Businesses to Compete with Businesses in Other States:

The proposed action will not have a significant statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states because the regulatory action will not increase compliance costs and will not substantially affect incidental take quantities.

(b) Impact on the Creation or Elimination of Jobs Within the State, the Creation of New Businesses or the Elimination of Existing Businesses, or the Expansion of Businesses in California; Benefits of the Regulation to the Health and Welfare of California Residents, Worker Safety, and the State's Environment:

The Commission does not anticipate significant impacts on the creation or elimination of jobs within the state, or the creation of new businesses or the elimination of existing businesses or the expansion of businesses because the proposed action will not significantly increase or reduce incidental take quantities for non-Cancer crab.

The Commission anticipates benefits to the environment in the sustainable management of non-Cancer crab species.

The Commission does not anticipate any benefits to the health and welfare of California residents, or to worker safety.

(c) Cost Impacts on a Representative Private Person or Business:

The proposed regulations may have adverse cost impacts to king and box crab harvest revenue for a few fishermen who have historically landed more than the proposed 25-pound limit. The following summarizes the total statewide costs and benefits from this regulation and each alternative considered.

Regulation cost of $71,077: These are potential cost impacts on individuals or businesses; these are minimal impacts to king and box crab harvest revenue (landed ex-vessel value) for a few fishermen who have historically harvested more than the proposed 25-pound limit.

Alternative 1 cost of $107,445: These are potential cost impacts on individuals or businesses; these are minimal impacts to king, box and sheep crab harvest revenue (landed ex-vessel value) for a few fishermen who have historically harvested more than the alternate 100-pound limit for all non-cancer crab species.

(d) Costs or Savings to State Agencies or Costs/Savings in Federal Funding to the State: None.

(e) Nondiscretionary Costs/Savings to Local Agencies: None.

(f) Programs Mandated on Local Agencies or School Districts: None.

(g) Costs Imposed on Any Local Agency or School District that is Required to be Reimbursed Under Part 7 (commencing with Section 17500) of Division 4, Government Code: None.

(h) Effect on Housing Costs: None.

VII. Economic Impact Assessment:

For background, the commercial Dungeness crab and spiny lobster fisheries account for among the highest ex-vessel values in the state, together constituting over $72.3 million on average for the last three years. Of the over 700 targeted fisheries permit holders for rock crab, lobster, and Dungeness crab, an average of 76 fishermen over the last ten years have been active in the incidental take of non-Cancer crab species. Of those 76 landing non-Cancer crab, a relatively stable average of 64 fishermen were landing sheep crab. In contrast, the number of fishermen landing king and especially box crab has grown from a ten-year average of 12 to the five-year average of 17 fishermen. The substantial increase in king and box crab landings has been accompanied by an interest among

fishermen in their development as target fisheries.

Consideration of the management of these non-Cancer crab species has prompted the proposed possession and landing limits for box and king crabs and a TAC limit for sheep crab, the non-Cancer crab with the highest harvest quantities. The impact of the 95,000 pounds TAC for sheep crab is anticipated to be minimal as the limits fall well within the historical harvest quantities. (More detail on the TAC rationale is available in section III. Description of Regulatory Action.)

A relatively low 25-pound possession and landing limit for box and king crab is proposed while the feasibility of a target fishery is evaluated through an EGP program. The introduction of a 25-pound possession and landing limit for box and king crab may substantially reduce landings for some fishermen.

According to landing receipt data, commercial fishermen landed a five-year average (2013-17) of 104,635 pounds of all non-Cancer crab species with an ex-vessel value of $189,448. Sheep crab landings, which during this time averaged about 66 percent of the total value, are not anticipated to drop in aggregate value with the proposed TAC limit. The other non-Cancer crab species have grown in the share of catch, especially since the 2017 spike in participation. The proposed 25-pound incidental catch limit is anticipated to bring the king and box crab aggregate ex-vessel landing values down to represent historic levels of incidental take in the target fisheries (see Figure 2. Non-Cancer crab landings by species, on p.3).

For a baseline, the economic impact of the five-year average catch by each non-Cancer crab species is shown in Table 1. Over this 5-year period, non-Cancer crab has contributed annually about $381,036 in total economic output (direct, indirect, and induced impacts) to the state economy. The harvest of non-Cancer crab species has also contributed about $65,313 in employee compensation, supporting about 1.6 jobs.

Table 1. Average Annual Economic Impact of Non-Cancer Crab Landings (2013-2017)

Non-Cancer Crab Species	Actual Ex-Vessel Value	Non-Cancer Crab Employment	Employee Compensation	Total Economic Output
Sheep Crab	$ 109,104	0.9	$ 37,615	$ 219,442
Box Crab	$ 70,152	0.6	$ 24,185	$ 141,096
CA King Crab	$ 10,191	0.1	$ 3,514	$ 20,498
CA State Non-Cancer Crab Total	$ 189,448	1.6	$ 65,313	$ 381,036

The proposed sheep crab TAC is estimated to have little change on sheep crab harvest values. However, box and king crab declines are anticipated with the proposed 25-pound possession and landing limits, which could result in an estimated market-wide $64,425 drop in ex-vessel value for box crab and a $6,652 drop for king crab as shown in Table 2.

Table 2. Estimated Ex-Vessel Values for Box and King Crab with the Proposed 25-Pound Possession and Landing Limits.

Historical Ex-Vessel Values			Estimated Ex-Vessel Values with Proposed 25 lb Limit	
Year	Box Crab	King Crab	Box	King
2013	$ 9,404	$ 3,045	$ 1,055	$ 1,139
2014	$ 26,787	$ 995	$ 2,152	$ 533
2015	$ 30,606	$ 4,013	$ 4,095	$ 1,240
2016	$ 92,818	$ 15,577	$ 5,425	$ 6,004
2017	$ 191,145	$ 27,327	$ 15,907	$ 8,780
5-Year Average	$ 70,152	$ 10,191	$ 5,727	$ 3,539
Difference with proposed regulatory action			$ (64,425)	$ (6,652)

The estimated ex-vessel values with the proposed 25-pound limit are derived from actual historical landings data. The annual ex-vessel value for each year was adjusted by reducing the value from individual landings that exceeded 25 pounds.

In the absence of this harvest value circulating throughout the economy, total economic output could decline by about $142,958, which could reduce support for about 0.6 jobs. However, the total economic output estimates are derived with a static linear model that does not include adaptation to change.

Notably, an experimental gear permit (EGP) is being developed concurrently with this rulemaking. The EGP will explore the feasibility of a targeted fishery for box crab in which participating fishermen would not be subject to the 25-pound limit. As fishermen adapt to the new regulations, some may feel 25 pounds is not worth pursuing. Those with permits to target box crab through the EGP could have access to higher harvest quantities under the proposed program, potentially resulting in an increase in total landings beyond those seen in 2017. Catch limits during the EGP program will be adaptive to research findings. If the EGP is successful, the overall ex-vessel value for box crab may actually increase under this program and if findings lead to a recommendation of development of a new fishery, access to box crab permits may become more broadly available.

(a) Effects of the Regulation on the Creation or Elimination of Jobs Within the State:

The Commission anticipates minimal negative impacts on the creation or elimination of jobs within the state because the proposed action is not likely to have substantial widespread reductions in incidental take quantities for king and box crab species, and sheep crab incidental take is anticipated to be relatively unchanged.

(b) Effects of the Regulation on the Creation of New Businesses or the Elimination of Existing Businesses Within the State:

The Commission anticipates no significant impacts on the creation of new businesses or the elimination of existing businesses within the state because the proposed action is not likely to substantially change incidental take quantities enough to stimulate the creation or elimination of businesses.

(c) Effects of the Regulation on the Expansion of Businesses Currently Doing Business Within the State:

The Commission anticipates no significant impacts on the expansion of businesses within the state because the proposed action is not likely to substantially change incidental take quantities.

(d) Benefits of the Regulation to the Health and Welfare of California Residents:

The Commission does not anticipate any benefits to the health and welfare of California residents.

(e) Benefits of the Regulation to Worker Safety:

The Commission does not anticipate any impacts worker safety.

(f) Benefits of the Regulation to the State's Environment:

The Commission anticipates benefits to the State’s environment. The proposed regulation benefits the environment by prohibiting the overexploitation of several non-Cancer crab species before adequate management measures could be developed for dedicated targeted fisheries. The proposed regulation will also allow for development of an experimental gear permit program for box and king crab designed to conduct research on species biology and potential appropriate management measures.

Informative Digest/Policy Statement Overview

Summary of the Proposed Amendments

Under current law, commercial fishermen, with a Dungeness crab, rock crab or lobster permit, may incidentally take unlimited amounts of crabs not of the genus Cancer (non-Cancer crabs) when targeting Dungeness crab, rock crab, and lobster, with no limit on amount. Laws that specifically allow the incidental take of crab include subdivision 8284(c), Fish and Game Code (FGC), and subsection 125.1(c), Title 14, California Code of Regulations (CCR), which allow the take of non-Cancer crabs when targeting rock crab. Similarly, non-Cancer crabs may be taken incidentally in the lobster (subdivision 8250.5(b), FGC) and Dungeness crab (subdivision 8284(a), FGC) fisheries. The FGC provides a general definition of bycatch (incidental take) that does not give guidance on acceptable amounts (Section 90.5, FGC), but FGC and CCR sections on specific species and gear types do specify rules for retaining non-target species in some cases.

The proposed changes would amend the existing Section 126, which currently applies to the commercial take of Tanner crab. The title of 126 would be changed to "Commercial Take of Crabs not in the Genus Cancer in Trap Gear." Tanner crab (*Chioneocetes* spp.) are non-Cancer crabs, and existing regulations regarding this fishery would be shifted to new Section 126.1. The new Section 126 would provide a definition of crabs of the genus Cancer and institute limits to allowable incidental take of non-Cancer crabs when participating in other target invertebrate trap fisheries. Species in the family Lithodidae (box and king crabs) would be subject to a 25-pound possession and landing limit, while the sheep (spider) crab would be subject to a total allowable catch of 95,000 pounds. When possessing or landing species in the Lithodidae family, an equal or greater amount of the target species (rock crab, lobster, or Dungeness crab) must also be possessed or landed. Additionally, a requirement to bring non-Cancer crab, in the whole, ashore to be recorded on a landing receipt would be added.

The proposed regulatory change would amend subsection 125.1(c)(3), which details allowances for incidental take of other species when targeting rock crab. The incidental allowances would remain unchanged except for reference to the new subsection 126(b) specifying a limit on non-Cancer crabs.

Benefit of the Regulation

The proposed regulation will benefit the environment in the sustainable management of non-Cancer crab species by prohibiting the overexploitation of several non-Cancer crab species before adequate management measures could be developed for dedicated targeted fisheries. The proposed regulation will also allow for development of an experimental gear permit program for box and king crab designed to conduct research on species biology and potential appropriate management measures.

The proposed regulations are neither inconsistent nor incompatible with existing State regulations. Statutes and regulations specifically allow the incidental take of crab other

than the genus Cancer in commercial fisheries for rock crab (subdivision 8284(c), FGC, and subsection 125.1(c), Title 14, CCR), spiny lobster (subdivision 8250.5(b),FGC), and Dungeness crab (subdivision 8284(a), FGC). The Legislature has delegated authority to the Commission to regulate fisheries that the Director of the California Department of Fish and Wildlife determines are emerging fisheries (Fish and Game Code, Section 7090) as well as the power to regulate the commercial spiny lobster and rock crab trap fisheries (Fish and Game Code Section 8254 and 8282).