

State of California
Fish and Game Commission
Initial Statement of Reasons for Regulatory Action

Amend Section 29.06
Title 14, California Code of Regulations
Re: Recreational Sea Urchin Bag Limit Exemption

I. Date of Initial Statement of Reasons: August 25, 2023

II. Dates and Locations of Scheduled Hearings

(a) Notice Hearing

Date: October 12, 2023

Location: San Jose

(b) Discussion Hearing

Date: December 13-14, 2023

Location: San Diego

(c) Adoption Hearing

Date: February 14, 2024

Location: Sacramento

III. Description of Regulatory Action

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

Unless otherwise specified, all section references in this document are to Title 14 of the California Code of Regulations (CCR). Commission refers to the California Fish and Game Commission unless otherwise specified. Department refers to the California Department of Fish and Wildlife unless otherwise specified.

Kelp forests are biodiverse coastal marine ecosystems which harbor many of California's unique native marine species either as juveniles or adults. The kelp assemblage along the northern and central California coast has seen a sharp decline in recent years. Bull kelp (*Nereocystis luetkeana*) in northern California has declined by more than 90% of its historical level since 2014 (Rogers-Bennett and Catton 2019). This decline has been linked to a combination of severe warm water events and an explosive increase of herbivorous sea urchins, particularly purple sea urchins (*Strongylocentrotus purpuratus*). Purple sea urchins are a native species in California; however, following the severe warm water events, the species' abundance increased 60-fold in Sonoma and Mendocino counties (Rogers-Bennett and Catton 2019), in part due to the loss of the predatory sunflower sea star (*Pycnopodia helianthoides*) from wasting disease (Harvell et al. 2019) and a large purple sea urchin recruitment event. This has led to the overgrazing and suppression of natural recovery of bull kelp forests on the North Coast, resulting in a regime shift from kelp forests to urchin barrens across most of the region (Rogers-Bennett and Catton 2019). Urchin barrens occur when the population of urchins go unchecked by natural predators, which lead to destructive grazing on kelp and other algae, ultimately resulting in a complete loss of kelp forest habitat.

The collapse of the bull kelp forests has had catastrophic cascading effects on industries that rely on the kelp forest ecosystem, such as the commercial red sea urchin (*Strongylocentrotus franciscanus*) roe fishery (i.e., marketable for culinary consumption of both the male and female gonads). The physiology of sea urchins makes them extremely resilient to death by starvation. At the same time, the lack of food places all sea urchins, including red sea urchins, perpetually in a starved state in which they do not develop healthy gonads (Claisse et al. 2013). The lack of quality/healthy gonads makes most of the red sea urchins found on the North Coast unmarketable. Despite being a historically important and lucrative fishery, the red sea urchin fishery in northern California collapsed in 2015, prompting a federal disaster declaration (Newsom G. 2019). In addition, abundance of other grazers and predators relying on kelp for food have decreased rapidly. As a result, the recreational red (*Haliotis rufescens*) fishery, one of the most iconic fisheries in California, was forced to close in 2018 (Commission 2018).

The severe bull kelp decline is further compounded by the annual life cycle of bull kelp, the dominant canopy species in northern California (Springer et al. 2010). Since kelp individuals die off each year, bull kelp's abundance in any given year depends heavily on the abundance of the previous year. A severely diminished spore bank thus significantly limits the capacity for broadscale recovery of the species.

In order to address the declining kelp and increasing sea urchin populations detrimental to kelp growth and recruitment, the Commission adopted an emergency regulation to temporarily remove the recreational bag limit for purple sea urchins taken by hand and handheld tools inside Caspar Cove, Mendocino County, in February 2020. This emergency regulation was designed to provide a science-based assessment of the efficacy of in-water purple urchin culling by recreational divers as a potential kelp restoration tool.

In December 2020, the Commission adopted a Certificate of Compliance for amendments to Section 29.06 to continue the exemption on the recreational bag limit for sea urchins at Caspar Cove (Mendocino County) while also adding Tanker Reef (Monterey County) due to considerable public interest regarding concerns of giant kelp (*Macrocystis pyrifera*) decline along the Monterey Bay Peninsula. The intent of the amendments was to gather data and help inform whether 1) recreational diver community-led *in situ* urchin control could serve as a mechanism to support kelp restoration at key locations through promoting natural recovery, as well as 2) environmental impacts of culling activities, including potential negative impacts to other organisms or whether damage to underlying reef structure could be characterized. A successful pilot restoration effort could directly confer ecological benefits to both Caspar Cove and Tanker Reef, such as allowing abalone to re-colonize areas previously impacted by urchin barrens.

A sunset date for the exemption at Caspar and Tanker Reef was established for April 1, 2024, allowing three years for recreational dive communities in Mendocino and Monterey Counties to self-organize, execute culling efforts, and conduct monitoring to assess the efficacy of removal efforts, both in terms of social and ecological outcomes. Additionally, three years was considered the minimum amount of time needed to observe a potential trend in environmental conditions.

Caspar Cove

Culling efforts at Caspar Cove were initiated by the public in July 2020. As of July 27, 2023, 241 dives have been reported by 110 unique divers, resulting in an estimated removal of

130,758 purple sea urchins. Due to the COVID-19 pandemic, mobilization of recreational effort has been more challenging than originally anticipated, and removal and monitoring efforts were significantly disrupted.

Additional challenges, such as remoteness of the site, weather constraints, and limited local resources (e.g., closure of local dive shops) have imposed hurdles to recreational diver effort. Importantly, however, the coastal community has continued to stay engaged, by working with local entities to find solutions to these challenges, which has resulted in increased effort and engagement at the site. Allowing for continued restoration efforts at Caspar Cove for another five years will provide essential data to inform whether urchin removal by recreational divers on the North Coast represents a viable option for bull kelp restoration.

Tanker Reef

Culling efforts at Tanker Reef were initiated by the public in April 2021. As of July 27, 2023, 1,369 dives have been reported by 187 unique divers, resulting in an estimated removal of 633,211 purple and red urchins. Of the estimate of 633,211 urchins removed, approximately 219,733 (34%) were removed from a 100-meter squared focal restoration area. Ecological monitoring is conducted in partnership with Department of Fish and Wildlife (Department), Monterey Bay National Marine Sanctuary, and Reef Check California staff at restoration and control areas. Restoration and control areas are each 100 square meters in size, although urchin culling also occurs outside of these monitored areas within the broader Tanker Reef regulatory boundary. Table 1 provides urchin and kelp densities from subtidal surveys at the control and restoration areas within Tanker Reef at timepoints prior to the onset of urchin culling by recreational divers (Spring 2021) and at the time of peak kelp density within the restoration area (Summer 2022). Urchin and kelp densities were similar between the control and restoration areas prior to the onset of urchin culling activities. Urchin densities remained high and kelp densities remained low at the control site throughout the survey time period. Urchin densities in the restoration area were reduced below a target threshold of ≤ 2 urchins per square meter between the Spring and Fall 2021 sampling events and remained around the threshold density through Spring of 2023. Kelp densities increased in the restoration area and peaked in Summer 2022.

Table 1: Urchin and giant kelp densities* at Tanker Reef control and restoration areas from subtidal surveys conducted prior to the onset of urchin culling activities in Spring 2021 and during peak giant kelp density which occurred in Summer 2022.**

	Pre-culling (Spring 2021)	Pre-culling (Spring 2021)	Pre-culling (Spring 2021)	Post-culling (Summer 2022)	Post-culling (Summer 2022)	Post-culling (Summer 2022)
Area	Urchin	Kelp Individuals	Kelp Stipes	Urchin	Kelp Individuals	Kelp Stipes
Control	8.7	0	0.01	6.7	0.01	0.02
Restoration	6.8	0.02	0.36	1.8	0.32	1.46

* Mean densities are shown in units per meters squared.

** Mature giant kelp forests in California typically range from 1.9 to 15 stipes per square meter and up to 3 individuals per square meter (North 1971).

Current Regulations:

Current recreational urchin regulations in Section 29.06 specify bag and possession limits and methods of harvest for purple sea urchins. Subsection (d) provides specific exemptions to allow unlimited recreational take of purple sea urchin in Caspar Cove, Mendocino County, and at Tanker Reef, Monterey County, as well as red sea urchin at Tanker Reef, Monterey, until April 1, 2024.

PROPOSED AMENDMENT

This regulatory proposal would amend Section 29.06 to extend the sunset date by five years at Caspar Cove (to 2029) to allow the continued evaluation of whether *in situ* urchin removals by recreational divers can serve as a potential bull kelp restoration tool. This proposal also includes an option to extend a portion of the Tanker Reef area based on stakeholder requests in two regulatory options, as follows:

- Option 1: Extend sunset date by five years (to April 1, 2029) at Caspar Cove only
- Option 2: Extend sunset date by five years (to April 1, 2029) at Caspar Cove and in a portion of the existing Tanker Reef area

Amend Section 29.06:

Option 1: Amend subsection 29.06(d)(1) – Extend sunset date for Caspar Cove to April 1, 2029.

Option 1 would allow Caspar Cove to be extended as described above under subsection 29.06(d)(1). Consistent with existing regulations, the exemption at Tanker Reef would sunset on April 1, 2024 as intended and currently specified in regulations.

Unlike Caspar Cove, removals and monitoring efforts at Tanker Reef have been continuous and extensive. The focused restoration area at Tanker Reef has seen an initial detectable kelp response following urchin removal (See Table 1). Sunsetting the regulations and culling efforts at Tanker Reef in April 2024 will allow for completion of the post-restoration monitoring phase and production of a final report, detailing the restoration methods and results which will inform the development of the statewide Kelp Restoration and Management Plan (KRMP) and any potential future kelp restoration actions for the central coast.

However, there is still some public interest to continue the work at Tanker Reef, and allowing the provision to sunset as originally intended would lead to dissatisfaction by participants who have contributed time and effort to the activities at Tanker Reef.

Option 2: Amend subsection 29.06(d)(1) as reflected in Option 1, and amend subsection 29.06(d)(2) – Extend sunset date for a portion of the existing Tanker Reef area to April 1, 2029.

Option 2 would allow Caspar Cove to be extended as described above under subsection 29.06(d)(1) and a portion of Tanker Reef listed under 29.06(d)(2) to remain open for continued urchin removal, in a section of the reef that is outside of the restoration and control areas to allow for post-restoration monitoring (See Figure 1). Unlike Caspar Cove, removals and monitoring efforts at Tanker Reef have been more extensive (albeit focused in one small area), and an initial detectable kelp response has been observed in the focal restoration area following urchin removal.

There is still public interest in continuing to remove urchins at Tanker Reef. Extending the sunset provision under newly modified boundaries that are a subset of the existing boundaries will still provide opportunities for the public to remain engaged in urchin removals for kelp restoration purposes in a smaller area than what is currently allowed. The proposed boundaries would still ensure that key access points from shore and by vessel remained intact, making this change less burdensome on the public.

If the boundary of Tanker Reef is modified to allow for additional removal of urchins, Department staff would continue to coordinate with the public and existing partners and would begin post-restoration monitoring of the restoration and control areas. The eastern boundary is positioned around 100 meters away from the restoration area, allowing for post-restoration effort monitoring to begin in 2024. The proposed boundary would provide a buffer so post-restoration monitoring would not be impacted by potential urchin culling efforts in the proposed boundary area. Additionally, the proposed modification reduces the footprint for Tanker Reef, which could minimize potential habitat damage during urchin removals.

Please note that the Commission may choose to modify the boundaries proposed by the Department in this option at the discussion or adoption hearing, although the modified boundaries would be constrained to within the existing Tanker Reef area boundaries only. If the Commission chooses to modify the boundaries, a 15-day notice of the proposed changes will be issued to the public.

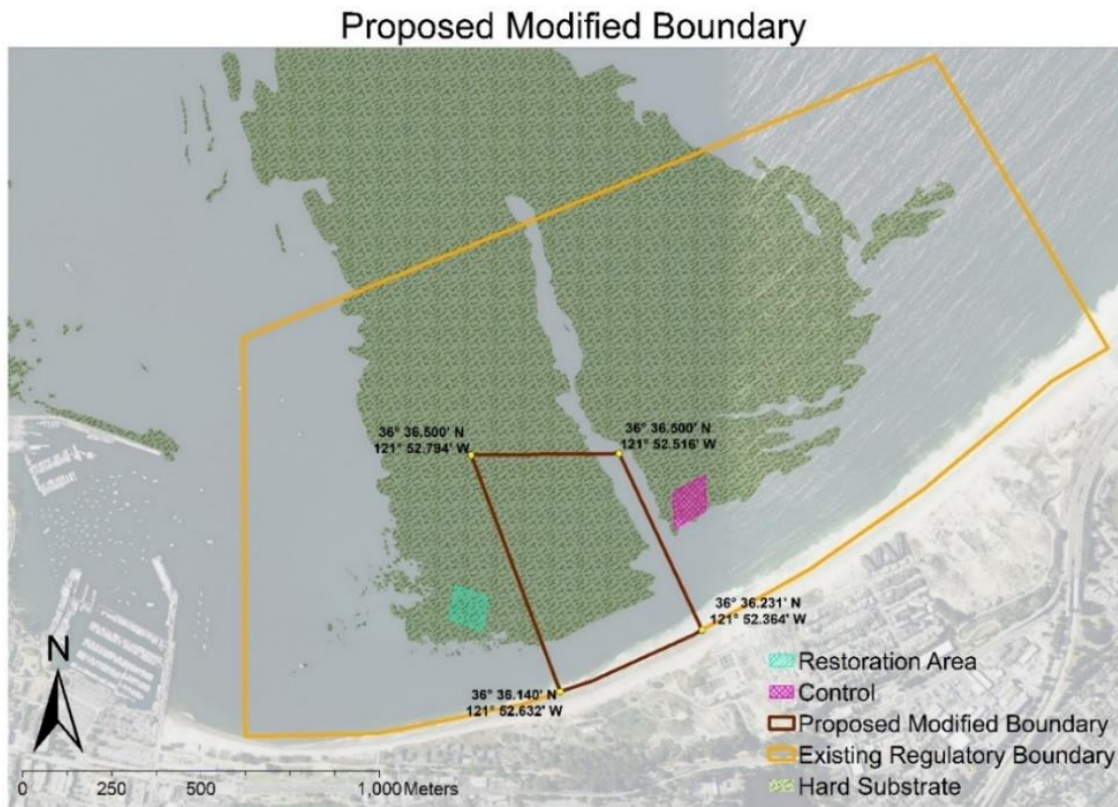


Figure 1. Map depicting the modified boundaries for Option 2 at Tanker Reef. The red polygon are the new proposed boundaries while the orange polygon is the existing boundary that is set to expire on April 1, 2024. Hard substrate data (shown by green hatching) show where kelp could potentially attach to, should urchin eradication be successful.

(b) Goals and Benefits of the Regulation

The policy of this state is “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” (Fish and Game Code Section 7050(b)). The proposed regulation change would allow five more years to continue the sea urchin removal efforts and associated monitoring assessments at Caspar Cove. The primary goal of the extension is to ensure there is adequate time by the recreational divers to continue their sea urchin removal efforts to better understand the effects urchin removal has on barren reefs and kelp recruitment and growth. These urchin removal efforts are intended to explore the efficacy of restoration tools for statewide restoration of kelp forests in California, which are valuable ecosystems that support our native unique marine species and are economically, and culturally important in California. For instance, kelp supports critical ecosystem services such as recreational and commercial fisheries and eco-tourism, which contribute significantly to the state’s \$44 billion ocean economy. Additionally, California’s Native American tribes, who have inhabited and stewarded the coast since time immemorial, also rely on kelp forest ecosystems for food, medicine, and ceremony. Restoration of kelp could also support species such as abalone, which are vulnerable and are no longer able to support a culturally and economically valuable fishery. Finally, this will also inform possible options for the Department’s KRMP, which is currently under development.

For Tanker Reef, two regulatory options have been identified for the Commission, each with their own goals and benefits. Option 1 would allow the existing regulation to sunset, as originally intended. The principal goal and benefit of this option would be to initiate the post restoration monitoring phase in a timelier manner to better inform management of using recreational divers as a tool for kelp restoration. Option 2 would also allow the post restoration monitoring to begin in 2024 following the April sunset date, while keeping a portion of the reef open to the public for continued urchin removals for another five years, as requested by some members of the public.

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

Authority: Sections 200 and 205 Fish and Game Code

Reference: Sections 200 and 205 Fish and Game Code

(d) Specific Technology or Equipment Required by Regulatory Change

None

(e) Identification of Reports or Documents Supporting Regulation Change

- 11/09/21 - Department update on kelp restoration and recovery efforts, including initial outcomes of urchin removal projects and status of sunflower sea star (Pycnopodia) - <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=195601&inline>
- 03/14/23 – Department update on Giant and Bull Kelp - <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=210955&inline>

- Caspar Cove Diver Log - https://docs.google.com/spreadsheets/d/e/2PACX-1vQbkVbQfGkr9yaJ5bj1KUjjHQ9Dq8OfTUrtDU7jplvcIF3isKSspT_ywCIOUIMI-tbw_-b1iTcyN6Do/pubhtml?gid=1680084585&single=true
- Tanker Reef Diver Log - <https://public.tableau.com/app/profile/jack.heffernan7475/viz/CaliforniaCentralCoastKelpRestoration/About>

(f) Identification of Reports or Documents Providing Background Information

Claisse, J. T., Williams, J. P., Ford, T., Pondella, D. J., Meux, B., & Protopapadakis, L. (2013). Kelp forest habitat restoration has the potential to increase sea urchin gonad biomass. *Ecosphere*, 4(3), 1-19.

<https://esajournals.onlinelibrary.wiley.com/doi/pdf/10.1890/ES12-00408.1>.

Fish and Game Commission. (2018). Initial Statement of Reasons for Regulatory Action to Amend Section 29.15, Title 14, California Code of Regulations, Re: Abalone Regulations.

<http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=160847&inline>.

Harvell, C. D., Montecino-Latorre, D., Caldwell, J. M., Burt, J. M., Bosley, K., Keller, A., ... & Pattengill-Semmens, C. (2019). Disease epidemic and a marine heat wave are associated with the continental-scale collapse of a pivotal predator (*Pycnopodia helianthoides*). *Science advances*, 5(1), eaau7042.

<https://advances.sciencemag.org/content/advances/5/1/eaau7042.full.pdf>.

Gavin Newsom, Governor of California, Letter from, to Wilbur Ross, United States Secretary of Commerce (2019). California Red Sea Urchin Disaster Request.

<https://www.fisheries.noaa.gov/webdam/download/88698465>.

North, Wheeler. J. (1971). The biology of giant kelp beds (*Macrocystis*) in California. Lehre, J. Cramer.

Rogers-Bennett, L., & Catton, C. A. (2019). Marine heat wave and multiple stressors tip bull kelp forest to sea urchin barrens. *Scientific reports*, 9(1), 1-9.

<https://www.nature.com/articles/s41598-019-51114-y?sf222971155=1>.

Springer, Y. P., Hays, C. G., Carr, M. H., & Mackey, M. R. (2010). Toward ecosystem-based management of marine macroalgae—The bull kelp, *Nereocystis luetkeana*. *Oceanography and marine biology*, 48, 1.

<https://farallones.org/wp-content/uploads/2018/09/Ecosystem-Based-Management-of-Bull-Kelp.pdf>.

(g) Public Discussions of Proposed Regulations Prior to Notice Publication

The Department first presented the issue to the Marine Resources Committee at its July 20, 2023 meeting, and to the Fish and Game Commission at its August 23, 2023 meeting.

IV. Description of Reasonable Alternatives to Regulatory Action

(a) Alternatives to Regulation Change

The Department considered an option to extend the sunset date for Tanker Reef for five years (until 2029) to allow ongoing urchin removals at the request of participants in the removal efforts at the site. There is still some public interest to continue the work at Tanker Reef and

extension for the entire site would provide a continuation of existing opportunities for the public to continue clearing urchins in the existing regulatory boundary, which maintains a much larger area than as proposed for reduction in Option 2.

If the sunset date at Tanker Reef was extended, Department staff would continue to coordinate with the public and existing partners, and would continue to monitor the existing focal restoration and control areas. However, the post-restoration monitoring would be delayed if the sunset provision at this site is extended. Post-restoration monitoring is needed to inform kelp forest resource management, especially the KRMP. Continuation of urchin culling within the entirety of the existing regulatory boundary at Tanker Reef limits the assessment of the effort, due to an inability to ensure the existing "cleared" quadrant would not be impacted by continual maintenance of recreational divers.

Finally, a study conducted by the Department and Monterey Bay National Marine Sanctuary divers demonstrated that the mudstone substrate at Tanker Reef is friable, and errant strikes can directly damage the soft substrate and some non-target organisms on the underlying reef habitat. However, training on responsible culling practices being implemented by the dive community may mitigate these impacts in the field. Should this be extended, other areas on the reef not previously worked on by recreational divers could see more urchin culling activities on a larger scale, therefore increasing the likelihood of habitat damage.

Note that at the October 2023 notice hearing, the Commission was presented with this third option. After a discussion the Commission directed staff to go to notice with options 1 and 2, only.

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

(b) No Change Alternative

Without the proposed regulation change, unlimited harvest at the two designated areas will no longer be permitted. The recreational bag limit would revert to a daily bag limit of 35 animals per day in Monterey County and a daily bag limit of 40 gallons in Mendocino County. The monitoring and associated data collected on large scale urchin removals from barren reefs would cease, which could hinder management's ability to better understand if this activity is a good tool for future kelp restoration plans for north and central coast reef habitats.

(c) Description of Reasonable Alternatives that Would Lessen Adverse Impact on Small Business

None

V. Mitigation Measures Required by Regulatory Action

The proposed regulatory action will 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 statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states. The proposed action will not introduce compliance costs nor curtail economic activity within the state. The proposal aims to continue an existing exemption for a program run by volunteers that seeks to restore and promote the long-term sustainability of kelp forest communities that are a vital component of recreational and commercial fisheries ecosystems and future marine resource-based economic activity.

(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 any impacts on the creation or elimination of jobs within the state, the creation of new businesses, the elimination of existing businesses or worker safety. The Commission anticipates generalized benefits to the health and welfare of California residents and benefits to the state's environment. The proposed action continues an existing exemption designed to ensure the long-term sustainability and quality of kelp forest communities by removing a species (sea urchin) that when overpopulated, can have adverse impacts on kelp recruitment and growth. The long-term sustainability of kelp forest communities are a vital component of recreational and commercial fisheries ecosystems and future resource-based economic activity.

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

The Commission is not aware of any cost impacts that a representative or private person or business would necessarily incur in reasonable compliance with the proposed action.

(d) Costs or Savings to State Agencies or Costs/Savings in Federal Funding to the State

No costs or savings to state agencies or impacts to federal funding are anticipated. No change in administration or enforcement costs or savings are anticipated by the Department or other state agencies. Consideration was given to keep administrative and enforcement costs within existing budgets. The Department may experience a continued small increase in license revenue as divers who choose to participate in urchin removal would need to purchase a sportfishing license if they do not already possess one, but the cost of a license is not specifically due to this proposed regulatory change. The requirement to hold a sportfishing license to engage in recreational fishing is established in an existing regulation (pursuant to FGC Section 7145). Sportfishing licenses or 1-Day or 2-Day licenses, etc. are sold at various price points depending on state residence, age, veteran status, disabilities, and other considerations.

(e) Nondiscretionary Costs/Savings to Local Agencies

No nondiscretionary costs or savings to local agencies are anticipated. However, continued positive tax revenue impacts are expected depending on the regulatory option that would be

selected. Recreational urchin diving expenditures in the retail, food and accommodations, automotive service and fuel, outdoor recreational merchandise sales/rent/lease, and recreational services sectors generate local sales and transient occupancy tax for local governments throughout California (See STD399 and Addendum). Overall, if the sunset date is extended in both sites, the continuation of the slightly elevated number of dive visits per year are projected to continue to contribute to local economies in Mendocino and Monterey counties. Only if the sunset for the existing Tanker Reef regulation is not extended could a small reduction in dive visits be expected.

(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

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

The Commission does not anticipate any adverse impacts on the creation or elimination of jobs, as the proposed regulatory action is not anticipated to substantially increase the number of diver visits, and thus probable diver expenditures in the Mendocino County, Caspar Cove and in the Monterey County, Tanker Reef areas. The proposed extension is designed to further efforts to ensure the long-term sustainability of kelp forest ecosystems that function to ensure the ongoing recreational and commercial fishing and economic activity.

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

The Commission does not anticipate any impacts on the creation of new businesses or the elimination of existing businesses within the state because the proposed action is for increased recreational sea urchin take that is not likely to involve a substantial consistent increase in the number of diver visits or diver expenditures in the affected Mendocino and Monterey areas. Continuing the restoration program should support the long-term sustainability of the kelp forest ecosystem and the future viability of the marine resources that support fishery-related businesses.

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

The Commission does not anticipate any impacts on the expansion of businesses currently doing business within the state. Continuing the proposed program to restore the long-term sustainability of kelp forests will lend vital support to a range of fishery-related businesses.

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

The Commission anticipates generalized benefits to the health and welfare of California residents.

(e) Benefits of the Regulation to Worker Safety

None. The proposed regulation does not impact working conditions.

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

The Commission anticipates benefits to the state's environment. 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" (Fish and Game Code subdivision 7050(b)). The proposed regulation will benefit the state's environment by helping to ensure sustainable kelp forests for fishery and ecosystem management.

Informative Digest/Policy Statement Overview

Unless otherwise specified, all section references in this document are to Title 14 of the California Code of Regulations (CCR).

Kelp forms the backbone of many biodiverse subtidal communities along the northern and central California coast. However, its abundance has decreased significantly in northern California and in some parts of central California since 2014, in large part due to the unchecked proliferation of sea urchins. In 2020, the Fish and Game Commission (Commission) amended Section 29.06 to exempt the recreational take of purple sea urchin in Caspar Cove, Mendocino County, and at Tanker Reef, Monterey County, from any take limit until April 1, 2024. The Commission also exempted all recreational take of red sea urchin at Tanker Reef, Monterey, until April 1, 2024. The exemptions were designed to explore the feasibility of kelp restoration through urchin culling from recreational divers, as well as the potential environmental impact from such culling activities.

Since the take limit exemptions first came into effect, culling efforts at Tanker Reef has resulted in the removal of over 600,000 sea urchins, with the restoration area experiencing notable kelp recovery. Culling effort at Caspar Cove, however, faced various challenges due to the remoteness of the site, which were further exacerbated by the ongoing COVID-19 pandemic. As of July 27, 2023, only approximately 130,000 sea urchins have been removed.

The Commission is currently considering extending the sunset date of the exemption at Caspar Cove for another five years until 2029. A five-year extension at Caspar Cove would provide sufficient time to collect additional data to inform the feasibility of urchin removals as a viable tool for kelp recovery. There is enough public interest and support to continue the urchin removals at Caspar Cove to warrant continuing these efforts.

Unlike Caspar Cove, removals and monitoring efforts at Tanker Reef have been continuous and extensive. Sunsetting the exemptions at this location would allow the state to complete monitoring and ultimately incorporating the knowledge into the statewide Kelp Restoration and Management Plan. However, there has been desire from the public to continue the restoration effort. As such, the potential extension for the Tanker Reef exemptions under this proposal includes two options:

- 1) Allow the existing provision to expire April 1, 2024 as defined in regulation; and
- 2) Modify the boundaries and continue urchin removals until April 1, 2029.

Benefits of the Proposed Regulation

The proposed amendments to Section 29.06 will provide the state and the public more time to implement and monitor the efficacy of urchin-culling in Caspar Cove. The two options for Tanker Reef would allow the state to complete its assessment of the location and incorporate lessons learned into statewide kelp restoration efforts as soon as possible; extend the current restoration effort; or a combination of both. Urchin culling at both Caspar Cove and Tanker Reef ultimately serve to inform the broader, ongoing kelp restoration effort in California.

Consistency and Compatibility with Existing State Regulations

The Legislature has delegated authority to the Commission to promulgate recreational fishing regulations (Fish and Game Code, sections 200 and 205); no other state agency has the authority to promulgate such regulations. The Commission has reviewed its own regulations and finds that the

proposed regulations are neither inconsistent nor incompatible with existing state regulations. The Commission has searched the CCR for any regulations regarding the adoption of fishing regulations and has concluded that the proposed regulations are neither inconsistent nor incompatible with existing state regulation.