California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

November 28th, 2023

Re: Petition to Modify CA Marine Protected Area Network to Enhance Protections for California's Most Resilient Kelp Forests; Petition to Increase Level of Protection and Streamline Enforcement for Several California State MPAs

Dear President Sklar and Honorable Commissioners,

In solidarity with the shared responsibility for the well-being of our planet, particularly the oceans and coastlines we hold dear, we are reaching out as college students to express our firm support for the amplification and extension of California's Marine Protected Area (MPA) network. Understanding the critical importance of maintaining stable kelp ecosystems and safeguarding conserved ocean areas, we are committed to ensuring the prolonged vitality of our oceans and the myriad marine species that inhabit them.

The state of our ocean is at a critical juncture, with escalating global temperatures, declining biodiversity, and a growing number of endangered marine species. Northern California has lost more than 95% of its kelp forests since 2014, and kelp forests statewide have experienced declines over the past decade.¹ Only 50 Pacific leatherback turtles are now found foraging off California's coast, a notable decrease from the 178 Pacific leatherbacks observed from 1990 to 2003.² Marine heatwaves have doubled over the last 30 years, and have become more intense and longer in duration, putting stress on California's marine species and ecosystems.³

In the face of these mounting threats, California has a unique opportunity to take bold and effective action to conserve ocean habitats and ensure a greater abundance of life off our coast. Over two decades ago, the state passed the groundbreaking Marine Life Protection Act (MLPA), which called on the state to use one of the most powerful tools for ocean conservation: marine protected areas (MPAs).

¹ Meredith McPherson et. al, <u>Large-scale shift in the structure of a kelp forest ecosystem co-occurs with an epizootic</u> and marine heatwave, Communications Biology, March 5, 2021

² Benson, Scott R., Karin A. Forney, Jeffrey E. Moore, Erin L. LaCasella, James T. Harvey, and James V. Carretta. <u>"A Long-Term Decline in the Abundance of Endangered Leatherback Turtles, Dermochelys</u> <u>Coriacea, at a Foraging Ground in the California Current Ecosystem.</u>" *Global Ecology and Conservation* 24 (November 2020).

³ García-Reyes, Marisol, Andrew Leising, Rebecca Asch, Steven Bograd, and Tessa M Hill. Rep. Indicators of Climate Change in California, <u>"Coastal Ocean Temperature"</u>, *California Office of Environmental Health Hazard Assessment*, 2022.

MPAs, like state parks on land, protect unique and important ocean habitats from activities that can damage ocean life. Areas that are strongly protected have been shown to be highly effective in conserving biodiversity, enhancing ecosystem resilience, and mitigating the impacts of climate change on our oceans.⁴ By providing areas that serve as buffers against climate change, fully protected MPAs adapt to changing environmental conditions because they better preserve natural interactions within ecosystems, allowing for greater resiliency.⁵

California's network of MPAs, foreseen in the MLPA, celebrated its tenth anniversary last year, and the state's Decadal Management Review (DMR) showed that MPAs effectively protect ocean habitats and increase fishery-targeted species' biomass. The DMR found that the older the MPA, the larger the increase in the biomass of fished species. Some ecological communities like kelp forests and rocky intertidal ecosystems within MPAs appeared more resilient and recovered more quickly after marine heatwaves than similar habitats outside MPAs.⁶ Now, we need to build on this system and maintain California's role as a national and global leader in the fight to protect more ocean habitats.

We support the expansion of the MPA Network to include critical, resilient kelp forests along California's coastline. While these vital and iconic ecosystems have faced declines statewide in recent years, kelp forests in some areas have persisted or bounced back quickly in the face of marine heatwaves and other disturbances.⁷ By expanding protections for these resilient forests under the MLPA, the state can minimize direct human impacts in these relatively healthy areas, helping to ensure their continued persistence and enhancing the effectiveness of restoration efforts for declining kelp ecosystems nearby.

It is also vital that existing California MPAs are able to achieve their stated goals of conserving biodiversity and ecosystem health. We encourage the state to consider increasing protections for MPAs that are currently only lightly or minimally protected, especially in places where weaker or more complicated regulations lead to poor compliance and enforcement. Research has shown that highly and fully protected areas, where few if any destructive or extractive activities are allowed, provide greater ecological benefits than lightly or minimally protected areas.⁸

As college students, we keenly feel the urgency to address the environmental crises, particularly along California's coast. Having grown up witnessing the impacts of climate change, it's clear

⁴ Arafeh-Dalmau et al., <u>Integrating climate adaptation and transboundary management</u>: <u>Guidelines for designing climate smart marine protected areas</u>, One Earth 6, 1–19 November 17, 2023 ^a 2023 Published by Elsevier Inc.

⁵ Jankowska, Emilia, et al. "<u>Climate Benefits from Establishing Marine Protected Areas Targeted at Blue Carbon</u> <u>Solutions</u>." *Proceedings of the National Academy of Sciences*, vol. 119, no. 23, 2022.

⁶ California Department of Fish and Wildlife. (2022). California's Marine Protected Area Network Decadal Management Review.

⁷ California Department of Fish and Wildlife. (2022). California's Marine Protected Area Network Decadal Management Review.

⁸Ibid Kirsten Grorud-Colvert *et al.*, <u>The MPA Guide: A framework to achieve global goals for the ocean</u>. *Science* **373** ,eabf0861(2021). DOI:10.1126/science.abf0861

that action is needed to limit harm to the environment. That's why we urge the Fish and Game Commission to make significant changes in preserving and protecting our vast ocean habitats, ensuring a meaningful and lasting impact for generations to come.

Our ocean is not just a provider of fresh air, diverse wildlife, and breathtaking scenery; it's also an enigma that calls us to explore and uncover its secrets. As college students, we believe it's our duty to be at the forefront of national and global efforts, taking bold steps to safeguard the ocean. This commitment ensures its future and the welfare of communities dependent on it for survival and prosperity.

In conclusion, we strongly urge you, Fish and Game Commissioners, to champion the expansion and fortification of California's network of Marine Protected Areas, with a particular focus on safeguarding kelp forests and reinforcing the protection of existing MPAs. By doing so, you will leave a lasting legacy of environmental stewardship.

Thank you for your unwavering commitment to the welfare of our ocean and for considering this urgent matter. Together, we can ensure a healthier, more abundant future for the unique marine ecosystems that define California.

Sincerely,

Clara Castronovo Board Chair CALPIRG Students

Brandi Sanchez President Ecology Behavior and Evolution Club at UC San Diego

Brandi Sanchez President Pollinator Club at UC San Diego

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