Batiquitos Lagoon Foundation
Preserve, Protect, and Enhance

January 31, 2019

Tova Handelman, Marine Protected Areas Program Manager
California Ocean Protection Council
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

Dear Ms. Handelman,

On behalf of the Batiquitos Lagoon Foundation (BLF), I am writing to express our strong support and commitment to WILDCOAST's application for funding through California Ocean Protection Council's Once-Through Cooling Interim Mitigation Program. With this support, WILDCOAST, and its project partners, the San Dieguito River Valley Conservancy and BLF, in addition to other collaborators, will have tremendous long-term positive impacts on natural resources and communities that are important to Outdoor Outreach. Their San Diego County Marine Protected Area Wetland Restoration Project will noticeably benefit an array of wildlife, important ecosystem services and resiliency, in addition to providing opportunities for local communities, youth, and visitors.

With somewhere between 50 and 90 percent of Southern California's wetlands gone, it is critical that those that remain are not only protected, but also restored. This project builds upon solid protections in place for two important San Diego County wetland marine protected areas, or MPAs, the San Dieguito and Batiquitos Lagoon State Marine Conservation Areas, by restoring and planning the restoration of degraded wetland, riparian, canyon, and salt marsh habitats located around their boundaries. This project also includes an opportunity to provide deeper engagement with communities and students from park-poor areas and local tribes directly in MPA and wetland stewardship, recreation, and education.

Outdoor Outreach has had the pleasure of working with WILDCOAST and their partners on many student engagement projects over the years, including community science and experiential learning activities in local wetland MPAs. The outdoor opportunities provided by these places and the programming that WILDCOAST, Outdoor Outreach, and other partners have carried out, have been transformative experiences for many of our students. While most walk away with a great appreciation and awareness of San Diego County wetland MPAs, some have continued involvement in their protection through various stewardship roles.

The enhancement of these incredible places, and the other opportunities that this project affords, are greatly needed to ensure a healthy, thriving, and resilient coastline for current and future generations. I very strongly encourage you to fund this important opportunity.

Sincerely,

Fred C. Sandquist
President and Board Member

Girl Scouts San Diego-Imperial Council, Inc.

Group 5912

January 30, 2019

Tova Handelman, Marine Protected Areas Program Manager
California Ocean Protection Council
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

Dear Ms. Handelman,

I am writing in strong support of WILDCOAST's application for funding through California Ocean Protection Council's Once-Through Cooling Interim Mitigation Program. With this support, WILDCOAST, will have tremendous long-term positive impacts on natural resources and communities that are important to our Girl Scouts. Their San Diego County Marine Protected Area Wetland Restoration Project will noticeably benefit an array of wildlife, important ecosystem services and resiliency, in addition to providing opportunities for local communities, youth, and visitors.

It is critical that San Diego County wetlands are restored. This project will help achieve this by restoring and planning the restoration of degraded wetland, riparian, canyon, and salt marsh habitat in the region. This project also includes an opportunity to provide deeper engagement with communities and students from park poor areas and local tribes directly in MPA and wetland stewardship, recreation, and education.

The San Ysidro Girl Scouts have had the pleasure of working with WILDCOAST and their partners on many student engagement projects over the years, including community science and experiential learning activities in local wetland MPAs. The outdoor opportunities provided by these places and the programming that WILDCOAST has carried out, have been transformative experiences for many of our girls. While most walk away with a great appreciation and awareness of San Diego County wetland MPAs, some have continued involvement in their protection through various stewardship roles.

The enhancement of these incredible places, and the other opportunities that this project affords, are greatly needed to ensure a healthy, thriving, and resilient coastline for current and future generations. I encourage you to fund this important opportunity.

Sincerely,

Irene Barajas
Leader Group 5912
Girl Scouts San Diego Imperial Council

Leader: Irene G. Barajas
567 Blackshaw Lane • San Ysidro, CA 92173
Phone: 619-662-0400 • Mobile: 619-851-2567 • email: irenegbarajas@yahoo.com

LAGUNA
OCEAN
FOUNDATION

January 19, 2019

To California Ocean Protection Council:

Laguna Ocean Foundation (LOF; www.lagunaoceanfoundation.org) is writing on behalf of PIs Miller, Whitaker, Ambrose, Raimondi, and Smith to express full support of their proposal entitled "Restoring rocky intertidal foundation species across California." LOF is a non-profit organization that strives to optimize the health and sustainability of Laguna Beach's vital coastal ecosystems through science, education, and community involvement. Laguna Beach is rich with long-stretches of diverse rocky intertidal habitat that is a particular focus of our conservation efforts. We recognize the importance of rockweeds as a foundation species for maintaining natural rocky intertidal ecosystem functioning and driving community structure. We support efforts to restore these seaweeds in Laguna Beach and other locations along the California coast. We believe rockweed restoration will not only have large, positive impacts on overall rocky intertidal health but will also result in improved experiences for the large number of naturalists, school groups, and local and international visitors that frequent these habitats along our coast. LOF manages a tidepool education program, consisting of docents and paid educators that perform outreach to rocky intertidal visitors during low tides. We are excited with the possibility of assisting with disseminating information about the project to public visitors as part of our outreach program in addition to providing assistance in restoration efforts in Laguna Beach using LOF volunteers from our educator programs.

Sincerely yours,

E. Almanza

Ed Almanza, Vice Chair
Laguna Ocean Foundation

OCMPAC
ORANGE COUNTY MARINE PROTECTED AREA COUNCIL

January 22, 2019

Subject: Letter of Support for Miller, et al. proposal entitled "Restoring rocky intertidal foundation species across California"

To California Ocean Protection Council:

The Orange County Marine Protected Area Council (OCMPAC) is a regional California MPA Collaborative that includes local city and county officials, institutional representatives, environmental consultants, academic faculty, and nonprofit organizations with a mission to manage, and conduct research and educational outreach in the Marine Protected Areas (MPAs) of Orange County. OCMPAC supports the efforts of Robert Miller (UCSB), Jayson Smith (Cal Poly Pomona), Stephen Whitaker (UCSB/NPS), Peter Raimondi (UCSC), and Richard Ambrose (UCLA) and their proposal for restoration of ecologically important rockweeds in rocky intertidal ecosystems along the California coast, including within local MPAs. Rockweeds play an integral role in ecosystem function and driving of intertidal community composition with restoration of this declining species being vital in improving rocky intertidal condition, particularly within MPAs as per the goal of our collaborative. OCMPAC will be engaged in the restoration project through cooperation and communication with OCMPAC member Jayson Smith and will encourage the restoration team to be active in public outreach efforts for the project within our program.

Sincerely,

Bernice Villanueva

Bernice Villanueva
Co-Chair Orange County Marine Protected Area Council
www.ocmarineprotection.org

Cabrillo Marine Aquarium

January 17, 2019

To Whom It May Concern:

The Cabrillo Aquarium strongly supports the CA Ocean Protection Council proposal, "Restoring rocky intertidal foundation species across California." Our mission is to inspire exploration, respect and conservation of Southern California marine life. We strive to educate the public and foster appreciation for all marine ecosystems including the rocky intertidal. Southern California rocky intertidal ecosystems have been degraded as the intensity of anthropogenic activity in the region has increased. The widespread decline of rockweed algal species represents one of the most concerning changes in the rocky intertidal since these canopy-providers modify the habitat providing shade and protection for numerous species.

Our organization is committed to conservation education and we are acutely aware of the research that has documented the impact that pollution, habitat loss, overfishing and climate change have had on our marine environment. We fully endorse activities, such as rockweed restoration, that attempt to reverse the detrimental effects that humans have exerted on our planet. Given the ecological role rockweeds have in rocky intertidal communities, the knowledge that they have declined markedly and they exhibit slow and unpredictable recovery, it is understandable that active restoration is necessary to expedite recovery of tidepools.

The Cabrillo Beach Coastal Park includes a long-term rocky intertidal monitoring site, Point Fermin Tidepools. It is our understanding that the habitat adjacent to this site is one of the locations proposed for restoration. We are excited about the prospects of implementing rockweed restoration here and other locations that have been impacted throughout California. This proposed project aligns directly with our educational and outreach programs for individuals and families (i.e. Science at the Seashore) as well as our Sea Search Marine Biology school programs. The ongoing efforts and results of this proposed restoration project will be integrated into our outreach to both the public and school groups.

Please let us know if we can be of further assistance.

Sincerely,

Julianne Kalman Passarelli, Ph.D.
Exhibits and Collections Curator
Cabrillo Marine Aquarium

The Nature Conservancy
Protecting nature. Preserving life.™

California Coastal and Marine Program
877 Cedar Street, Suite 242
Santa Cruz, CA 95017
(831) 234-2942

January 30, 2019

Dear Ocean Protection Council,

On behalf of The Nature Conservancy (TNC), I would like to express our strong support for the selection of the Once-Through Cooling Interim Mitigation Program Grant proposal, "Restoring rocky intertidal foundation species across California," led by PIs Miller (UCSB), Raimondi (UCSC), Ambrose (UCLA), Smith (CPP) and Whitaker (NPS) for funding by the Ocean Protection Council. The proposed work will not only restore rockweeds at important sites in California, but by tying into long-term monitoring will provide much needed information on rockweed dynamics and how best to restore and conserve these imperiled foundational species and the communities they support.

The proposed work aligns well with TNC research and projects. Firstly, our recent assessment, *Conserving California's Coastal Habitats: A Legacy and a Future with Sea Level Rise* found that 58% of the area of rocky intertidal throughout California is highly vulnerable to sea level rise. This finding highlights the urgent importance of planning and management actions now to conserve and restore this important habitat into the future. Secondly, The Nature Conservancy, CA is expanding our work on the management, restoration, and conservation of foundational habitats including seagrasses and kelp, which aligns well with the proposed work. Thirdly, we are researching components of wilderness along California's coast. We see our new Dangermond Preserve as a helpful reference site along a gradient of human use intensity, as well as an important sentinel site to monitor change along the California coast as climates change. Similarly, our long management of the wild coasts of Santa Cruz Island provide important reference sites among the islands and mainland gradient of human disturbance to coastal wilderness. We are interested in important research like this to be conducted in our preserves to enhance our understanding of ecological function in a changing climate and what restoration and management practices are best suited to ensure the conservation of these and other important coastal habitats.

In sum, TNC strongly supports the funding of this proposed project. Please feel free to contact me if you have any questions.

Sincerely,

Walter Heady

Walter Heady, Ph.D.
Senior Coastal Marine Scientist

bay restoration commission

STEWARDS OF SANTA MONICA BAY

santa monica bay restoration commission ✒ *320 west 4th street, ste 200; los angeles, california 90013*
213/576-6615 phone ✒ *213/576-6646 fax* ✒ *santamonicabay.org*

January 30, 2019

Dear Ocean Protection Council:

On behalf of the Santa Monica Bay Restoration Commission (SMBRC), I am writing to express my enthusiastic support for the CA Ocean Protection Council proposal "Restoring rocky intertidal foundation species across California." The rocky intertidal zone is a vital component of the Santa Monica Bay. The proposed restoration project would significantly bolster the intertidal restoration activities in Santa Monica Bay and help us to achieve our goal to restore and protect rocky intertidal and subtidal habitats in the Bay.

The Santa Monica Bay Restoration Commission (SMBRC) was established by the California Legislature in 2002 to monitor, assess, coordinate, and advise the activities that affect the beneficial uses, restoration and enhancement of habitats in Santa Monica Bay and its watersheds. Most recently in December 2018, the Governing Board of the SMBRC adopted a new Action Plan that sets priority actions to address remaining challenges and newly emerging issues. One identified issue and recommended action was to devote more attention and resources to protection of rocky and sandy habitats in the intertidal zone of the Bay after decades of neglect.

Our most recent assessment of the Bay's habitat condition indicated that rockweeds were either absent or too rare in the Santa Monica Bay. Restoration of rockweeds would provide multiple benefits to the entire rocky intertidal community in the Bay, including increasing biodiversity and potentially reducing the proliferation of invasive species, particularly the macroalgae Caulacanthus okamurae that has become especially common in the South Bay. In addition, the proposed project would be very synergistic with re-introducing and restoring an abalone population, another priority action recommended in SMBRC's new Action Plan. Once abundant in the Bay, especially in the rocky intertidal zone on the Palos Verdes Peninsula, abalone (black, white, pink, and green) populations have declined rapidly and some of the species are now federally endangered. A thriving rockweed population would significantly enhance the prospects of reintroducing juvenile abalone, which are sensitive to desiccation stress that is alleviated by rockweed. Reintroduction and restoration of rockweed population under the proposed project will support not only the implementation of our Action Plan, but also the Abalone Recovery and Management Plan (ARMP) published by DFW which identifies the PV Peninsula as a priority restoration site that historically once supported a thriving abalone fishery.,

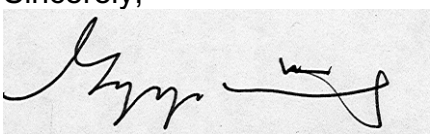
bay restoration commission

STEWARDS OF SANTA MONICA BAY

santa monica bay restoration commission ✐ 320 west 4th street, ste 200; los angeles, california 90013
213/576-6615 phone ✐ 213/576-6646 fax ✐ santamonicabay.org

We strongly endorse the need to restore rockweeds in California and particularly in Santa Monica Bay and urge you to award the grant to this project. Please feel free to contact me at 213-576-6639 (guangyu.wang@waterboards.ca.gov) should you have further questions.

Sincerely,



Guangyu Wang
Chief Administrative Director
Santa Monica Bay Restoration Commission

Biological Sciences
College of Science

9 May 9, 2019

Dear Ocean Protection Council:

I am writing in support of the proposed work by Miller et al. titled "Restoring rocky intertidal foundation species across California." I am a restoration ecologist in terrestrial systems and have a long history of working on sound restoration programs that result in successful ecosystem enhancement. I recognize the importance of restoring foundation species in degraded habitats, such as that proposed by Miller et al. Restoring these species can result in cascading positive impacts on the community as a whole. I also commend the authors for their approach to restore multiple locations over such a large geographic region. In addition, this project is critical for the conservation of rockweeds, which are declining in California. My own work with declining and at-risk plant populations uses similar restoration and reintroduction methods to help sustain these populations into the future. I commend this research group for applying these ideas to coastal rockweed species.

The investigators have a long history of monitoring and conducting robust research in rocky intertidal ecosystems. Furthermore, I serve on a thesis committee with one of the investigator's (PI Smith) graduate students who is conducting experimental rockweed restoration and have confidence that Smith, and the rest of the authors, have the knowledge and background of rockweed restoration that will lead to long-term success. Thank you for considering my comments in your review of this proposal.

Sincerely,

Erin Questad
Associate Professor
Department of Biological Sciences
ejquestad@cpp.edu

CAL STATE FULLERTON

Interim Provost and Vice President for Academic Affairs and Professor of Biology Emeritus
714-308-0621

May 20, 2019

Dear Members, Ocean Protection Council:

I am writing to indicate my support for the proposal "*Restoring rocky intertidal foundation species across California*", which is under consideration for funding by the Ocean Protection Council. As pointed out by the Principal Investigators for this research project, the species targeted for restoration work in this proposal are very important habitat providing seaweeds that have experienced very large declines in abundance over the past two decades.

There are three reasons why I am strongly in favor of supporting this research proposal:

1) The targeted species are habitat forming seaweeds that provide important ecological services. When present, these once abundant seaweeds provide canopy protection for an enormous diversity of coastal organisms on upper rocky shores during periods of low tide. The absence of this canopy protection transforms the very nature of these upper shore environments and eliminates the ability of many associated species to vertically extend their intertidal ranges. In addition, it is particularly important to establish these seaweeds in areas where they no longer occur if they are to recover and once again provide important canopy habitat. This is because the reproductive strategy found in these seaweeds results in the discharge of eggs only in narrow regions surrounding parental plants meaning that recolonization from distant sources is highly unlikely.

2) Most restoration work in coastal habitats to date has been performed on kelps, salt marsh vegetation, and sea grass beds. Very little attention has been given to the restoration of rocky intertidal seaweeds. Yet, on rocky shores seaweeds provide important habitat and food resources for a very large diversity of species whose populations would be greatly diminished in their absence. Rockweeds rank among the most important seaweeds to consider for restoration efforts because of their precipitous decline throughout much of southern and central California and

their amelioration of otherwise physically harsh upper shore habitats. Moreover, because of their reproductive system restoration might be the only way that rockweeds re-establish populations in areas where they are no longer present. In addition, restoring rockweed plants in suitable intertidal habitat has the potential to grow local populations to the point where they can once again produce extensive canopies and provide important ecological services. Prior research, including studies on which I have been a co-investigator, has focused on how best to restore rockweeds on rocky shores and has met with some success. Hence, there is a very strong likelihood that this project will experience success and add to our understanding of seaweed restoration on rocky shores.

3) The Principal Investigators for this project are almost certainly the most qualified scientists in the world to undertake this unique seaweed restoration effort. They are experts in rocky intertidal ecology, and their expertise includes high level and direct experience working with rockweeds and other seaweeds, intertidal invertebrates, and restoration projects. This expertise includes actual published studies on rockweed restoration methods. One couldn't assemble a more well-prepared group of collaborators to undertake this research.

In conclusion, this is an important project that should merit Ocean Protection Council support. It fits in well with the objectives of the state-wide mitigation program for once through cooling. The project is well conceived, important, has a high likelihood for success as well as the potential to break new ground in seaweed restoration, and is led by a very highly regarded group of investigators.

Respectfully submitted,

Steven N. Murray
Interim Provost and Vice President for Academic Affairs
and Professor of Biology *Emeritus*

OCMPAC
ORANGE COUNTY MARINE PROTECTED AREA COUNCIL

May 15, 2019

Subject: Letter of Support for Restoring Rocky Intertidal Foundation Species across California

To Whom It May Concern:

The Orange County Marine Protected Area Council (OCMPAC) is a collaboration of city and county officials, institutional representatives, environmental consultants, academic faculty, and nonprofit organizations that manage, and conduct research and educational outreach in the Marine Protected Areas (MPAs) of Orange County. OCMPAC supports the efforts of Jayson Smith (Cal Poly Pomona), Bob Miller (UCSB), Stephen Whitaker (UCSB), Richard Ambrose (UCLA), Peter Riamondi (UCSC), and Kyle Cavanaugh (UCLA) and their proposal to conduct restoration of rockweed species in the rocky intertidal zone as part of the state-wide mitigation program for once-through cooling facilities. We encourage the proposed collective efforts as it fits within our mission of collaboration at a regional level to assist and inform the public and partner agencies in order to support the effective management of Orange County MPAs.

These members have been integral to the research and monitoring efforts of OCMPAC and work in the interest of the organization for guiding adaptive management needs within the MPAs. The declination of habitat-forming rockweed species is of concern and the proposal to restore impacted populations of key rockweed species to provide ecosystem function and benefits to the rocky intertidal provides an appropriate approach.

OCMPAC supports the current and on-going intertidal work that these members lead throughout the entire California coast and continue to support their involvement with restoration efforts.

Sincerely,

Bernice Villanueva

Bernice Villanueva
Co-Chair Orange County Marine Protected Area Council
www.ocmarineprotection.org

CALIFORNIA STATE UNIVERSITY, FULLERTON
Department of Biological Science
College of Natural Sciences & Mathematics
McCarthy Hall-282
800 N. State College Blvd., Fullerton, CA 92831 / Tel: 657-278-3614 / FAX: 657-278-3426 / http://biology.fullerton.edu

May 21, 2019

Re: Letter of support for Rockweed Restoration Proposal to the OPC Once-Through Cooling Mitigation Program

Dear OPC Council,

I would like to express my strong support for the proposal *Restoring Rocky Intertidal Foundation Species Across California*, submitted by my colleagues Bob Miller, Jayson Smith, and their collaborators to the OPC Once-through Cooling Mitigation Program.

As a Marine Ecologist and Professor of Biology at California State University Fullerton, I have been heavily focused on science-based restoration of Olympia oysters and eelgrass, two critically important foundation species. I have seen first-hand how local restoration efforts can increase abundances of focal species, increase species richness and diversity, and result in numerous other positive impacts on local marine communities. Perhaps more importantly, when done using the best available science combined with novel testing of new restoration techniques, projects such as that proposed by Miller, Smith and colleagues both advance the state of restoration science while also yielding winning outcomes for local marine communities.

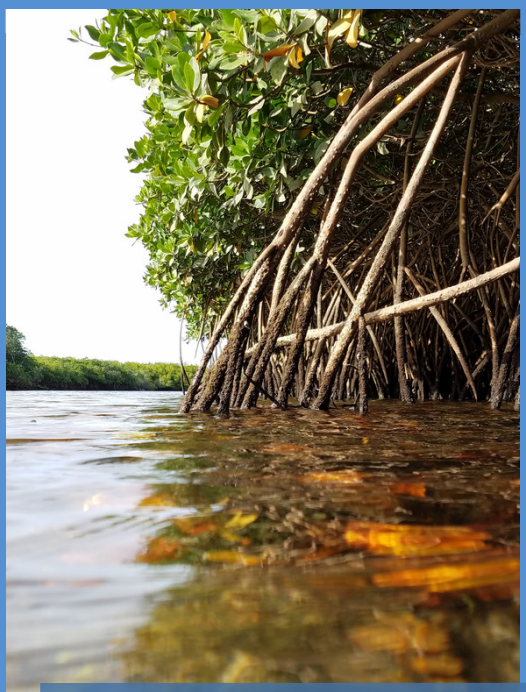
As a marine ecologist and restoration scientist, I am very familiar with the research and published works of each of the PIs and have a tremendous amount of respect for their science. I have first-hand experience with Stephen Whitaker's research and work ethic (I served on his Master's thesis committee at CSU Fullerton) and have worked alongside Jayson Smith on numerous occasions in professional settings. Their deep commitment to the integrity of California's natural habitats and their rigorous scientific approaches make this team a fabulous investment opportunity for the OPC. Once-through Cooling Mitigation funds supporting restoration of species that play integral roles in driving community structure, such as rockweeds, are a great investment in coastal California's future. Please consider this letter my significant support for rockweed restoration and for this expert team. Thank you for your careful consideration of the rockweed restoration proposal.

Sincerely,

Danielle Zacherl, Professor
Department of Biological Science
California State University Fullerton
(657) 278-7510, dzacherl@fullerton.edu

Blue Carbon and Coastal Conservation:
A NATURAL CLIMATE SOLUTION

WILDCOAST
COSTASALVAJE



Blue carbon is the carbon that is captured and stored by vegetation in coastal and marine ecosystems like mangroves, seagrasses, and salt marshes.

In California, seagrass meadows and salt marshes are natural blue carbon sinks. When they are degraded or destroyed, the carbon stored in the sediment is released back into the atmosphere and contributes to climate change. Seagrass and salt marsh habitats have seen dramatic declines throughout the state and continue to face pressures such as pollution, nutrient runoff, sea level rise and climate change.

We have the opportunity to reverse this trend. By restoring seagrass and salt marsh ecosystems, we can slow their loss and increase their ability to sequester carbon. The conservation and restoration and of these ecosystems enhances coastal resilience through both climate change mitigation and adaptation.

< 2 %
ocean area coverage

Vegetated marine ecosystems (salt marsh, mangrove, seagrass) occupy less than 2% of the seabed

These blue carbon ecosystems account for nearly 50% of the total carbon burial in ocean sediments - disproportionately greater than the small area they cover

46.9 %
oceanic carbon burial

35x
faster

Seagrasses bury carbon at a rate that is 35 times faster than tropical rainforests.

Terrestrial forests bind carbon for centuries. Coastal and marine vegetation can store carbon for millennia.

> 1,000
years

29-50 %
global decline

Salt marsh habitats have suffered a 50% decline worldwide and continue to experience 1-2% loss of area annually. Seagrass habitat has decreased by 29% and see annual losses of 7% globally.

WILDCOAST
925 SEACOAST DRIVE
IMPERIAL BEACH, CA 91932
619-423-8665 - WWW.WILDCOAST.ORG

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BLVD. LAS DUNAS #160-203, FRACC. PLAYA ENSENADA;
ENSENADA BAJA CALIFORNIA MEXICO C.P. 22880
WWW.COSTASALVAJE.ORG - 52-646-1521518

Blue carbon must be considered in the development and advancement of climate policy and Climate Action Plans statewide.

Climate policy and Climate Action Plans throughout the state of California have focused on curbing greenhouse gas emissions and promoting renewable energy options, but to ensure a truly sustainable and climate resilient future, we must seek to employ every solution available.
One simple and effective strategy is to advance natural climate solutions and blue carbon initiatives.

Currently, blue carbon is not included within voluntary carbon markets and other carbon accounting frameworks, even though blue carbon sources do contribute to the global carbon stock. This has impeded the use of coastal restoration as a natural climate solution, because there are not financial mechanisms incentivizing it.

California can lead the way in advancing a blue climate adaptation plan to complement our already progressive clean energy commitments, putting us ahead of the curve as blue carbon markets develop and grow. Blue carbon must be considered in the development and advancement of climate policy and Climate Action Plans statewide.
It is our responsibility to maintain a clean, healthy, and climate change resilient environment for future generations. Blue carbon initiatives, like coastal wetland preservation and restoration, are a path forward in achieving this goal.

Tim Calver

It's not just about the carbon!

Seagrass meadows and salt marshes provide us with ecosystem services.

Coastal Buffering & Lessen Coastal Erosion

Coastal vegetation dissipates wave energy thereby reducing wave impact on the coastline. By stabilizing sediment, these plants help minimize coastal erosion.

Increase Biodiversity

Healthy ecosystems generate biological productivity of both plants and animals which increases the total biomass and species diversity found in the environment.

Increase Productivity of Fisheries

These ecosystems provide suitable reproductive habitat, nursery grounds, and sheltered living space for fishes that are valuable commercially and recreationally.

Improve Water Quality

Coastal vegetation acts as a natural water filter by trapping sediment and filtering nutrients - improving water quality and clarity.

WILDCOAST is an international team that conserves coastal and marine ecosystems and wildlife. We establish and manage protected areas, advance strong conservation policies, and work with communities to preserve healthy thriving oceans and wild coastlines.

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California's Marine Protected Area (MPA) Network

CONSERVING OUR UNDERWATER PARKS

WILDCOAST
COSTASALVAJE

Photo by Octavio Aburto

California's MPA network includes:

- 124 marine protected areas that encompass 545,280 acres—or 16%—of California's ocean waters.
- A wide variety of ocean and coastal habitats from kelp forests to sandy beaches, submarine canyons to estuaries, as well as the fish, invertebrates, seabirds, marine mammals, and other species that inhabit our coast.

Similar to parks on land, MPAs aim to restore coastal wildlife and habitats. They increase ocean biodiversity and resilience and help to buffer sea life against a changing climate. California is working with a wide range of partners to effectively manage its landmark network of MPAs.

California is the first state in the nation to establish a scientifically based network of marine protected areas, or MPAs. These MPAs protect and restore ocean habitats and increase the health, productivity, and resilience of ocean ecosystems. They dot the coast like a string of pearls, including some of the state's most beloved coastal places, like the Farallon Islands, Point Lobos, Crystal Cove, and La Jolla. Many MPAs are located alongside public beaches and parks, creating enhanced opportunities for learning and enjoyment.

Many areas now protected as MPAs are important cultural resources for tribes and other communities throughout California.

WILDCOAST's MPA Program

WILDCOAST is leading efforts in California to conserve the state's 545,280 acres of MPAs. Through community science monitoring such as MPA Watch, and our Explore My MPA Project, we are helping to guide MPA adaptive management while building a new generation of ocean stewards. Our signage, materials, and presentations are informing a broad and diverse public audience on the importance of MPAs and their locations, regulations and opportunities. Working with more than 600 partners, including local tribes, management agencies, researchers, anglers, and divers, we are helping make California's MPA network most effective at achieving its goals to recover fisheries, restore ecosystems, and enhance the recreational value of important coastal areas.

WILDCOAST's MPA program consists of three project areas:
1) Compliance and Policy
2) Education and Outreach
3) Research

WILDCOAST is an international team that conserves coastal and marine ecosystems and wildlife. We establish and manage protected areas, advance strong conservation policies, and work with communities to preserve healthy thriving oceans and wild coastlines. WILDCOAST is co-chair of the San Diego County MPA Collaborative.

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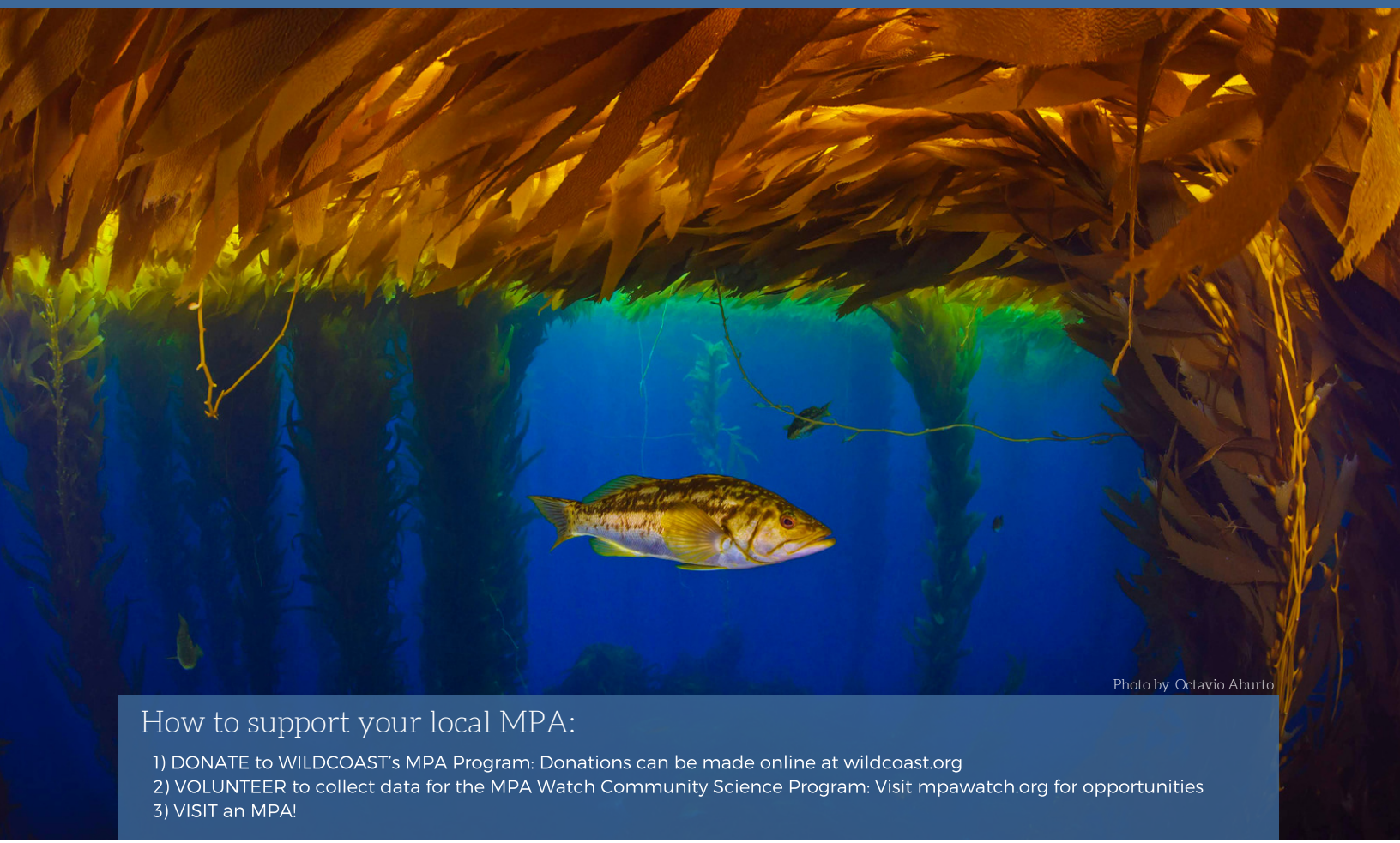

Photo by Octavio Aburto

How to support your local MPA:

1) DONATE to WILDCOAST's MPA Program: Donations can be made online at wildcoast.org
2) VOLUNTEER to collect data for the MPA Watch Community Science Program: Visit mpawatch.org for opportunities
3) VISIT an MPA!

1. Compliance and Policy

WILDCOAST works with its partners to enhance compliance in MPAs through outreach, capacity trainings with allied agencies, and policy. In 2016, Assembly Bill (AB) 298 was passed to expand the existing MPA enforcement toolkit in California by allowing enforcement officials the ability to write infractions. Prior to the passing of AB 298, enforcement officials could only cite MPA violators with misdemeanors. In 2018, WILDCOAST successfully sponsored AB 2369 to increase penalties for commercial MPA violators in California. Together these bills help strengthen MPA enforcement and compliance in California.

Photo by CDFW

2. Education and Outreach

WILDCOAST provides opportunities and resources for local communities to enhance ocean stewardship. Our Explore My MPA Project engages students in hands-on MPA-based science, recreation, and education. To date we have worked with over 5,000 students including many from park-poor communities and local tribes. We manage signage at MPA access points to inform the public of regulations, boundaries, and local ecology and history. Resources including issue briefs, Wildlife and Recreation Guides, and an Outreach Toolkit for classroom and outdoor educators may be downloaded and printed from wildcoast.org/resources.

Photo by Briana Smith

3. Research

WILDCOAST manages the statewide MPA Watch Program, a network of organizations that support healthy oceans through community science by collecting human use data in and around our protected areas. Data inform adaptive management decisions and assist with improving MPA outreach, education and compliance in 58 MPAs containing 187,917 acres of coastal and marine ecosystems. More than 23,000 MPA Watch surveys have been submitted by volunteers throughout California. Visit www.mpawatch.org for more information.

Photo by Krissel Rivas

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United States Department of the Interior

BUREAU OF OCEAN ENERGY MANAGEMENT

Pacific OCS Region
760 Paseo Camarillo, Suite 102
Camarillo, CA 93010-6064

MAY 2 1 2019

Dear Ocean Protection Council,

I am pleased to support the proposal, "Restoring rocky intertidal foundation species across California". This project will conduct restoration of an ecologically important rockweed species in the rocky intertidal zone as part of the state-wide mitigation program for once-through cooling facilities. This work will restore populations at numerous sites over a large geographic region from central to southern California, including the Channel Islands. Restoration is needed because rockweeds are an important habitat structuring alga that provide food, shade and other habitat services to a diverse number of invertebrates and other seaweeds. Rockweeds have declined in most areas along the California coast, particularly in areas with high human visitation.

Much of what we know about rockweeds in California has come from data collected through the Multi-Agency Rocky Intertidal Network (MARINe; pacificrockyintertidal.org). MARINe now represents many partners and currently samples over 200 sites covering 30 degrees of latitude, and ranging from southern Baja California, Mexico to Graves Harbor, Alaska. MARINe partners are required to share data and use an agreed upon set of monitoring approaches. Dr. Peter Raimondi (PI), Jennifer Burnaford at California State University, Fullerton, and Dr. Jayson Smith at California Polytechnic University, Pomona have been an effective and productive team contributing to MARINe for more than eight years. This experience makes Dr.'s Burnaford, Smith, Raimondi, and their partners well qualified and able to carry out successful restoration efforts in rocky intertidal habitats.

The Bureau of Ocean Energy Management (BOEM), and formerly Minerals Management Service, has been a supporter of MARINe since 1992. It recently approved continuous funding through 2023. BOEM and our MARINe partners need to track and manage rockweed populations. This work will help multiple government agencies understand how rockweeds can recover and be restored into the future. BOEM supports this effort and believes the investment into this project will improve rocky shore habitats and benefit government and non-government organizations that manage and want to preserve this resource. Please call me at 805-384-6387 if you have further questions.

Sincerely,

Lisa Gilbane
Biologist
Office of Environmental Analysis