

**COMMITTEES**  
BANKING AND FINANCE  
BUDGET  
BUDGET SUBCOMMITTEE NO. 5 ON  
PUBLIC SAFETY  
HUMAN SERVICES  
NATURAL RESOURCES

**SELECT COMMITTEES**  
CHAIR: COASTAL PROTECTION AND  
ACCESS TO NATURAL RESOURCES  
CO-CHAIR: ENVIRONMENTAL CAUCUS

# Assembly California Legislature



**MARK STONE**  
CHAIR, JUDICIARY  
ASSEMBLYMEMBER, TWENTY-NINTH DISTRICT

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March 14, 2019

The Honorable Philip Ting  
Chairman, Assembly Budget Committee  
State Capitol, Room 6026  
Sacramento, CA 95814

The Honorable Kevin McCarty  
Chairman, Assembly Budget Subcommittee #2 on Education Finance  
State Capitol, Room 2160  
Sacramento, CA 95814

Dear Assemblymember Ting and Assemblymember McCarty,

I am writing to request a \$3 million augmentation toward the California State University (CSU) budget to fund the CSU Council on Ocean Affairs, Science and Technology (COAST). COAST is a CSU-wide network of faculty and students working to address the state's most pressing ocean and coastal concerns. COAST has produced exceptional research on marine protected areas, ocean acidification, aquaculture, sea level rise, and other issues of statewide and national concern.

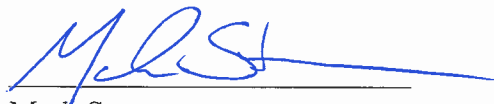
Increased annual funding for COAST would provide reliable funding for student travel and research awards, faculty incentive grants, rapid response grants, and staff support. This additional funding would also allow COAST to maintain and expand these core activities while dramatically increasing meaningful support for research confronting California's most critical ocean concerns and solutions. By increasing funding, California will be better able to access much needed research, while training the next generation of ocean leaders and researchers. This budget augmentation ensures the continuity of the COAST program and its significant impacts without impacting or competing with the rest of the CSU budget.



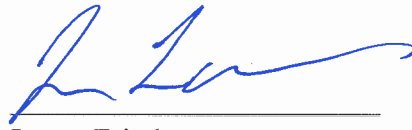
As Chair of the Assembly Select Committee on Coastal Protection and Access to California's Natural Resources, I have seen the incredible research that has come from the COAST program and have used it to craft policy discussions surrounding the coast. I urge the California Assembly to show leadership by supporting this research and helping the CSU can remain an international leader in ocean related issues.

Thank you for your consideration of this request, and please do not hesitate to contact my office with any additional questions.

Sincerely,



Mark Stone  
Assemblymember, District 29



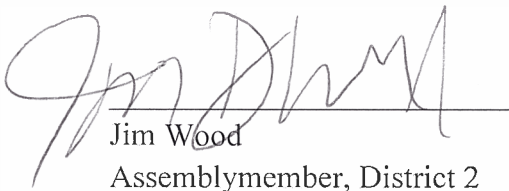
Laura Friedman  
Assemblymember, District 43



Marc Levine  
Assemblymember, District 10



Eduardo Garcia  
Assemblymember, District 56



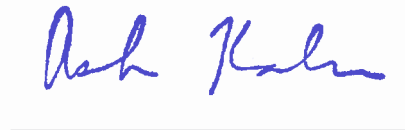
Jim Wood  
Assemblymember, District 2



Robert Rivas  
Assemblymember, District 30



Cottie Petrie-Norris  
Assemblymember, District 74



Ash Kalra  
Assemblymember, District 27

# SENATE CALIFORNIA LEGISLATURE

STATE CAPITOL  
SACRAMENTO, CALIFORNIA  
95814

April 10, 2019

The Honorable Toni Atkins  
President Pro Tempore, California State Senate  
Room 205, California State Capitol  
Sacramento, CA 95814

Senator Bob Wieckowski  
Chairman, Budget Subcommittee 2 on Resources, Environmental Protection, Energy and Transportation  
State Capitol, Room 5019  
Sacramento, CA 95814

The Honorable Richard Roth  
Chairman, Senate Budget Subcommittee #1 on Education  
State Capitol, Room 5019  
Sacramento, CA 95814

**Re: Budget Request for Support of Comprehensive Blue Carbon Strategy & Research**

Dear Senate President Pro Tempore Atkins, Chairs Wieckowski and Roth:

We are writing to request a \$35 million appropriation to fund comprehensive actionable strategies to increase the resilience of California's coastal and ocean ecosystems to climate change. This request would include a \$3 million augmentation toward the California State University (CSU) budget to fund enhanced research capabilities at the CSU Council on Ocean affairs, Science and Technology (COAST).

Global carbon emissions are driving changes not only to the Earth's climate, but also to the chemistry of the world's oceans. The oceans are acidifying as they absorb a significant share of the carbon dioxide released from burning of fossil fuels and changing land uses. From corroding shells and skeletons of marine organisms to disrupting normal fish behaviors, ocean acidification (OA) has the potential to alter marine food webs and ecosystems, and diminish the benefits they deliver to society, including California's \$45 billion ocean-based economy. Growing damage to California's fish species and iconic fishing industry are among the most prominent ocean related challenges our state faces. The past decade has brought California's ocean fisheries to a critical tipping point, including a two-year closure of California's commercial and recreational salmon fisheries, and disturbingly low populations and restricted salmon fishing seasons in recent years. This request includes common sense and effective steps to improve the health of California's oceans as well as sustain populations of commercially valuable fishery and mariculture species.

Improving Water Quality for Marine Protected Areas

California's coastal environment is an important ecological and economic resource. It is home to diverse and abundant marine life, and is home to some of the richest habitats on earth. To protect this diversity, the state has designated 124 marine protected areas (MPAs), which have been shown to serve as ocean 'hope spots' or climate reserves in a changing ocean. Additionally, the State Water Board created 34 Areas of Biological Significance (ASBS), a type of State Water Quality Protected Area, in order to preserve and protect especially valuable biological communities. When managed correctly, ASBS have the potential to serve a critical role to protect coastal water quality in and around MPAs. While only 45 of the 124 MPAs currently have at least some geographic overlap with ASBS, all MPAs would benefit from the additional water quality protection granted by State Water Quality Protected Areas. Approval of this request would allow the Water Boards, in consultation with the Ocean Protection Council (OPC) to create new State Water Quality Protected Areas to overlay Marine Protected Areas that currently do not have water quality protections.

#### Watershed Health & Connectivity

The science is clear that some timber harvest practices, such as logging on muddy slopes during rainy weather, have contributed to sedimentation of streams listed as impaired for that pollutant, especially on streams in northern California that are important fish habitat. Virtually all major fish-bearing water courses on the North Coast, including those critical to salmon populations, are listed as impaired for sediment, which can prevent spawning success and impact fisheries and the health of impaired salmon stocks. Current statute requires that all Timber Harvesting Plans be transmitted to the appropriate Regional Water Quality Control Board to determine consistency with sediment management plans and other environmental criteria, but these reviews are discretionary often not accomplished. This request would provide additional staff resources to the regional water boards that review the majority of timber harvesting plans to adequately assess plans transmitted to them and expedite consistency determinations and provide advice for applicants to achieve compliance.

This request would also allow CDFW to undertake a pilot project to evaluate the effectiveness of DNA-based tagging to improve hatchery management. Currently, hatchery managers must hold juvenile salmon until they are large enough to be tagged with coded wire tags. In some years, this delay means that juvenile salmon are released after the best river conditions have passed, significantly increasing mortality and reducing the percentage of juveniles that reach the ocean and survive to adulthood. By performing DNA testing on spawning salmon, a genetic database can be built to effectively "tag" the salmon produced by those parents when they reach adulthood. This pilot project will determine if genetic testing can improve the flexibility of hatchery managers to release juvenile salmon when outmigration conditions are best. Because this technology requires testing a pair of adults, rather than tagging all of their thousands of offspring, this approach can be cost-competitive.

Finally, this request would encourage improvements in hatchery release programs. The juvenile salmon produced by some California hatcheries face disturbingly low rates of survival to adulthood. In recent years, new approaches have been developed that dramatically improve the survival of juvenile hatchery salmon, including net pens, trucking and more. SB 69 includes provisions that encourages additional improvements in hatchery release programs so investments in hatchery production can yield more favorable results, to the benefit of commercial and recreational fishermen, the environment, and the state.

#### Vessel Speed Reduction Incentive Program

California is home to iconic, keystone marine species that provide both cultural and economic value to its communities. Whales along the California coast significantly enhance the predictability and stability of marine ecosystems as a "keystone species," while fueling the state's vibrant coastal tourism economy and a multi-million-dollar whale watching industry. Each year, thousands of large container ships travel to and

from California ports through shipping lanes that are shared by at least three endangered whale species. Slowing ship speeds reduces the risk of fatal ship strikes on whales while cutting air emissions.

In 2017, a partnership between NOAA Channel Islands National Marine Sanctuary, Santa Barbara County Air Pollution Control District, Ventura County Air Pollution Control District, Bay Area Air Quality Management District, and the National Marine Sanctuary Foundation started an initiative to cut air pollution and protect endangered whales. Vessel Speed Reduction (VSR) incentive programs continued to expand with speed-reduction zones in the San Francisco Bay area and the Santa Barbara Channel Region. The program built on the foundation of the 2014 VSR Trial, the 2015 Marine Shipping Working Group process, and the 2016 VSR Program. This request would allow CARB and coastal air districts, in consultation with the National Marine Sanctuary program, to develop and implement a permanent voluntary vessel speed reduction incentive program for California.

### Beneficial Reuse Program

Wetlands have among the most efficient carbon sequestration rates of all habitat types, allowing for both effective and extensive carbon sequestration. Healthy coastal and Delta wetlands provide important and irreplaceable benefits to the human population and to fish and wildlife. Over the last 16 years, the Bay Area alone has used 23 million cubic yards of dredged sediment for wetland restoration. From existing projects, agencies have noticed that restoration sites using dredged sediment – instead of natural sedimentation – have a much greater and quicker success rate for habitat development. A site that receives dredged sediment creates an actual marsh in about 10 –15 years versus 50 - 60 years for natural sedimentation. Increasing the quality and quantity of key wetlands in California will provide measurable benefits consistent with the most recent climate change mitigation strategies.

The U.S. Army Corps of Engineers (ACOE) conducts most dredging in the San Francisco Bay and other coastal areas in California for navigation and flood control purposes. Yet its regulations impose strict spending limits dictating that only the least costly dredged material disposal or placement alternative is pursued. In practice, this means most of dredged sediment is disposed fifty-five miles offshore, even when habitat restoration sites in need of sediment are available. If State funding were available to pay the incremental cost over ocean disposal – often a few dollars per cubic yard difference – this valuable resource could sequester carbon while increasing shoreline resilience to sea level rise.

Last year, the California Legislature appropriated \$6 million to the State Coastal Conservancy for the implementation of a beneficial reuse pilot program for dredged sediment in the Redwood City Harbor. The Conservancy leveraged that funding to receive federal funding in a matching program. This request would allow the Coastal Conservancy to develop, in coordination with the U.S. Army Corps of Engineers a permanent beneficial reuse program to place and reuse dredged sediment for coastal wetland restoration projects.

### Study on Low-Trophic Mariculture

The production of shellfish, seaweeds and kelp can play an important role in improving water quality and combatting climate change through carbon sequestration. California should likely pursue a more deliberate goal of promoting this low-trophic mariculture for both ocean and coast restoration as well as commercial production, as well as actively promote both restorative and commercial shellfish and seaweed production for its nutritional and ecological as well as economic benefits beyond what is currently done. This request would allow OPC to produce an objective analysis of whether the use of low-trophic mariculture systems may help address ocean acidification, habitat loss, nitrification, and pollution; movement of marine sediments, sea level rise, and storm preparedness; and food security and access to farming opportunities.

### Kelp Forest Restoration

In order to pursue kelp mariculture in the state's waters, it is important that efforts underway at the CDFW to determine optimum methods to restore the state's kelp forests be bolstered. As you know, more than 95 percent of the kelp forests off of northern California have been decimated in recent years – largely by an explosion in the population of purple urchins in the wake of a massive sea star die-off. The recreational abalone fishery was closed as a result and that fishery is important economically to coastal areas. The science shows these formerly forested areas can remain denuded of kelp for decades (if not longer) without intervention. CDFW participated in the Kelp Recovery Working Group organized by the Greater Farallones National Marine Sanctuary to develop a plan including research and pilot projects to move forward. The draft Working Group recommendations were recently released and incorporate CDFW's efforts. CDFW's initial work has shown promise, but it needs further and dedicated resources as well as consultation with OPC to make further progress.

### Invasive Species Expert Panel

Ocean and coastal ecosystems have the potential to sequester carbon and to assist California in its efforts to mitigate and adapt to climate change. These valuable resources – such as kelp, tidal marshes, and seagrass meadows – are historically threatened throughout California due to changing ocean conditions and invasive species transported by ballast water from international trade. California has some of the most stringent ballast water standards in the nation, but Congress recently enacted the Vessel Incidental Discharge Act (VIDA), which requires Trump's U.S. EPA to set new standards. Given the state's longstanding interest in ballast water standards, the state has an interest in applying the strongest standards possible. California should be advocating that its existing ballast water standards (Public Resources Code Section 71200 et al.) shall not backslide to conform with the federal Vessel Incidental Discharge Act (S. 140). This request would allow the State Water Board, State Lands Commission, and the Ocean Science Trust to establish an Independent Expert Panel to provide recommendations and develop a report to the U.S. EPA on levels of discharge standards that could be met by shipboard treatment systems and onshore treatment plants.

### CSU Council on Ocean Affairs, Science and Technology (COAST)

Increased annual funding for COAST would provide reliable funding for student travel and research awards, faculty incentive grants, rapid response grants, and staff support. COAST has produced exceptional research on marine protected areas, ocean acidification, aquaculture, sea level rise, and other issues of statewide and national concern. This additional funding would allow COAST to maintain and expand these core activities while dramatically increasing meaningful support for research confronting California's most critical ocean concerns and solutions. This request would ensure the continuity of the COAST program and its significant benefits without impact to or competition with the rest of the CSU Budget.

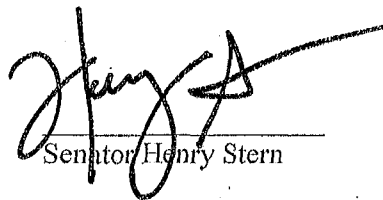
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Thank you for your consideration of this request. Please do not hesitate to contact my office with any additional questions.

Sincerely,



Senator Scott Wiener



Senator Henry Stern