

STAFF SUMMARY FOR AUGUST 22-23, 2018

Recommendations (N/A)

Exhibits

- A1. [Letter from FGC to California State Lands Commission, dated Aug 17, 2017](#)
- B1. [Staff summary from Apr 25, 2016 \(for background purposes only\)](#)
- B2. [Email and sample results from Vanessa Zubkowsky, California Department of Public Health, received Jul 25, 2018](#)

Motion/Direction (N/A)

Commissioners
Eric Sklar, President
Saint Helena

Jacque Hostler-Carmesin, Vice President
McKinleyville

Anthony C. Williams, Member
Huntington Beach

Russell E. Burns, Member
Napa

Peter S. Silva, Member
El Cajon

STATE OF CALIFORNIA
Edmund G. Brown Jr., Governor

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Fish and Game Commission



Wildlife Heritage and Conservation
Since 1870

August 17, 2017

Honorable Gavin Newsom
Lieutenant Governor and Chair
California State Lands Commission
100 Howe Avenue, Suite 100 South
Sacramento, CA 95825

Via email to CSLC.CommissionMeetings@slc.ca.gov

Re: Comments on Poseidon Resources' proposed seawater desalination project at Huntington Beach (Poseidon Project)

Dear Lieutenant Governor Newsom:

I am writing on behalf of the California Fish and Game Commission (FGC) to offer comments for consideration on proposed desalination projects in general, and the proposed Poseidon Project in Huntington Beach specifically. FGC provided comments to the California Coastal Commission on its consideration of the proposed Poseidon Project in February 2017¹, and appreciates the opportunity to convey similar comments to you now.

With ongoing concerns about long-term water availability for California and less snow pack as the climate warms, seawater desalination is proposed as one solution to the water needs of California communities. FGC understands the need to explore new and alternative measures to meet resource demands in a sustainable manner, and recognizes that seawater desalination has the potential to be a valuable tool in California's water supply portfolio. FGC also recognizes that climate variability is an issue facing all resource management agencies, and that balancing the needs of human populations in the face of uncertain resource availability can be a difficult task.

At the same time, current seawater desalination technology also has the potential for significant detrimental impacts to California's marine ecosystems. The mission of FGC is to ensure the long-term sustainability of fish and wildlife in California. Thus, FGC would like to emphasize that seawater desalination projects must be carefully considered and analyzed by all permitting agencies, and ultimately designed in a way to avoid or minimize

¹http://www.waterboards.ca.gov/santaana/water_issues/programs/Wastewater/Poseidon/Letter_CFG_2017_02_01.pdf

adverse effects to living marine resources and habitats in the marine environment to the greatest extent possible.

Of particular relevance, in an effort to preserve marine ecosystem functions, buffer against uncertainty, and complement species-specific management, FGC adopted the nation's first coast-wide network of marine protected areas (MPAs). In place since 2012, California's globally-significant MPA network was created to help ensure that the natural diversity, marine ecosystem functions, and marine natural heritage of the state were protected while also helping to improve recreational, educational and study opportunities.² FGC, along with the California Department of Fish and Wildlife and numerous other agencies and non-governmental organizations, has invested significant time and resources to ensure that MPAs are managed in a manner consistent with legislative guidance, FGC and stakeholder intent, and ensuring that the system of MPAs functions as a robust network.

I understand that there are at least nine active proposals for seawater desalination plants along the California coast that would join the ten existing plants³, some in close proximity to MPAs. FGC seeks to strengthen the shared commitment of our partner coastal management agencies to help maximize MPA network functionality by considering actions that subject the MPA network to limited human disturbance. FGC valued the opportunity to work with the California State Lands Commission (SLC) and its staff during the MPA planning process and would like to acknowledge SLC's continued leadership in upholding standards for marine protection, specifically its role as a key member of the MPA Statewide Leadership Team convened by the California Ocean Protection Council. In particular, SLC committed in the leadership team's adopted work plan⁴ to update SLC's strategic plan to reflect commitments regarding MPAs, to assess pending agency regulations for potential impacts to MPAs, and to both consider data regarding, and identify opportunities for, mitigation and impact avoidance strategies in current regulatory/policy requirements pertinent to MPAs.

FGC reiterates its support of efforts to reduce impacts to marine resources by evaluating potential project impacts to individual MPAs, the MPA network as a whole, and site-specific marine resources during permitting and decision-making processes. As such, we urge SLC to require that proposals for seawater desalination facilities avoid or minimize impacts to MPAs and all marine resources through best available siting, design, and technology.

Minimizing impacts through thoughtful design is consistent with the State Water Resources Control Board's recently-adopted Ocean Plan Amendment, which requires desalination plants to use the best available site, design, technology and mitigation measures feasible to minimize intake and mortality of marine life *and identifies subsurface*

² Marine Life Protection Act, Fish and Game Code § 2853(b)

³ <http://pacinst.org/publication/key-issues-in-seawater-desalination-proposed-facilities/>

⁴ Marine Protected Area (MPA) Statewide Leadership Team Work Plan FY 15/16 – 17/18, Key Action Items 1.4, 2.4, and 4.3. Available at www.opc.ca.gov/programs-summary/marine-protected-areas/partnerships/

*intakes as the preferred technology.*⁵ Additionally, the board's policy contains requirements for protecting MPAs, including a prohibition on harmful intake and discharge structures *within* MPAs and a directive to site discharge and surface intakes at sufficient distances to minimize water quality and marine life impacts to protected areas.

Impacts to marine life from seawater desalination clearly can be avoided through current technology such as subsurface intakes, which pull ocean water through wells and/or galleries beneath the seafloor rather than through an open pipe in the water column. Subsurface technology eliminates impacts to marine life from being impinged on an intake screen or entrained in the source water from a screened open ocean intake, impacts that can result in significant injury and death of marine species. Despite this, the policy within the Ocean Plan Amendment also provides flexibility for alternative intake and disposal methods, with greater impacts to marine life, if it can be demonstrated that preferred technologies are infeasible. It is our understanding that an earlier feasibility evaluation, performed by an Independent Scientific Technical Advisory Panel jointly convened by the California Coastal Commission and Poseidon Water, found the nine sub-surface technologies it evaluated to be technically or economically infeasible; however, we also have been informed that the Santa Ana Regional Water Quality Control Board is currently seeking additional information to help determine if subsurface intakes are feasible at the proposed Huntington Beach site, or alternative sites. FGC encourages further consideration of subsurface intakes for the Poseidon project proposal consistent with the Ocean Plan Amendment. However, FGC questions the appropriateness or necessity of siting a 50 million gallon a day desalination plant off Huntington Beach given the availability of alternative sources of water to augment Orange County's water supply portfolio at a much lower economic and environmental cost.

At a minimum, FGC urges SLC to make avoiding potential impacts to MPA effectiveness a priority and to consider additional science on best management measures for seawater intake and discharge. While new desalination projects with open ocean intakes will not be permitted within MPAs, facilities with open ocean intakes *near* MPAs can have a direct impact on marine resources; incidental take and the reduction of critical larval connectivity between MPAs occurs as marine life is pulled into a plant and removed from the ecosystem, including organisms originating from the MPAs that are necessary to support California's marine life. Impacts from open ocean intake have the potential to undermine the ability of MPAs to function as a network, weakening the science-based framework on which they were created and potentially their ability to generate expected long-term benefits.

While in a July 2017 letter to FGC⁶ Poseidon stated that 91% of larvae estimated to be entrained by the proposed project are from fish that are not associated with the kelp and rocky reef habitat inside the southern California coastal MPA reserve network, FGC would

⁵ State Water Resources Control Board, Final Staff Report and Final Desalination Amendment, including the Final Substitute Environmental Documentation. Adopted on May 6, 2015. Available at: www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2015/rs2015_0033_sr_apx.pdf

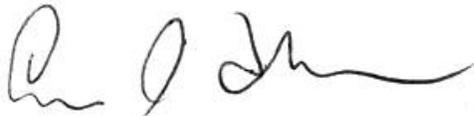
⁶ Fish and Game Commission meeting materials for June 21-22, 2017 meeting, Agenda Item No. 34, available at nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=145898&inline

like to emphasize that kelp and rocky reef habitat are only two of the many habitat types California's MPAs are designed to protect. The network is designed to provide protection to *all* marine habitat types and their associated marine life, as mandated by the Marine Life Protection Act. Further, while Poseidon concludes that there is little or no likelihood that the project's potential entrainment could negatively affect any MPA or any network of MPAs, and that marine life effects due to entrainment are anticipated to be insignificant based on the 2010 California Environmental Quality Act (CEQA) review relied upon by SLC, the 2010 CEQA review was completed before MPAs were designated as a network within the Southern California Bight. FGC requests that at a minimum the supplemental CEQA review, or preferably a new CEQA review based on current baseline and information, fully evaluate how the proposed open ocean intake as modified would adversely impact productivity and connectivity of the affected MPA system.

With a tidelands lease for desalination facilities poised for your consideration, it is critical to uphold protections for California's MPA network, and to preserve the state's significant investment in the resilience of our ocean. Seawater desalination can be a tool in our water supply portfolio, particularly when other less economically- and environmentally-costly options are exhausted, but it must be carefully analyzed and designed in a way to avoid or minimize adverse effects to the greatest extent possible. Siting desalination facilities, intakes, and discharges away from MPAs (and other sensitive habitats and species), and requiring the use of subsurface intakes, will help ensure California's ocean ecosystems are sustained in the long-term.

Based on the aforementioned concerns regarding the proposed Poseidon Project and any future seawater desalination projects along the California coastline, we urge you (1) to apply sound scientific information to inform decisions surrounding siting, precautionary design, and technology for intake valves and discharge sites; (2) to seriously evaluate if or how the community need justifies the impacts associated with the proposed project relative to other options or sitings; and (3) to structure an adaptive process for any approved project to include periodic project review for careful consideration of new scientific information and technologies that may reduce impacts, and how to integrate them into the existing project.

Sincerely,



Eric Sklar
President

cc: Members, California Fish and Game Commission
Honorable Betty T. Yee, California State Controller and member, California State Lands Commission
Michael Cohen, Director of the California Department of Finance and member, California State Lands Commission
Dayna Bochco, Chair, California Coastal Commission
Jennifer Lucchesi, Executive Officer, California State Lands Commission

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Jack Ainsworth, Executive Director, California Coastal Commission

Felicia Marcus, Chair, State Water Resources Control Board

David Noren, Chair, North Coast Regional Water Quality Control Board

Dr. Terry Young, Chair, San Francisco Bay Regional Water Quality Control Board

Dr. Jean Pierre Wolff, Chair, Central Coast Regional Water Quality Control Board

Irma Munoz, Chair, Los Angeles Regional Water Quality Control Board

William Ruh, Chair, Santa Ana Regional Water Quality Control Board

Henry Abarbanel, Chair, San Diego Regional Water Quality Control Board

STAFF SUMMARY FOR APRIL 25, 2016

2. EMERGENCY CLOSURE

Today’s Item

Information

Action

Adoption of proposed emergency regulation to close the recreational razor clam fishery for Humboldt and Del Norte counties.

Summary of Previous/Future Actions (N/A)

Background

Current regulations for recreational take of razor clams specify seasons, size limits, bag limits and special gear provisions. The razor clam season for Humboldt County between Mad River and Strawberry Creek is open only during even-numbered years and between Strawberry Creek and Moonstone Beach open only during odd-numbered years. The razor clam season for Del Norte County north of Battery Point is open only during odd-numbered years and south of Battery Point is open only during even-numbered years. All other areas are open year-round.

On Apr 20, 2016, California Department of Public Health (CDPH) re-issued a health advisory, in place since Aug 2015, reminding individuals to avoid eating razor clams due to the detection of high levels of domoic acid. The advisory was followed by a recommendation to FGC from the director of the Office of Environmental Health Hazard Assessment (OEHHA), in consultation with the director of CDPH, that the recreational razor clam fishery be closed in Humboldt and Del Norte counties, in particular due to observations that numerous anglers have continued to harvest razor clams recently despite the advisory.

Domoic acid is a naturally occurring toxin that is related to a “bloom” of a particular single-celled plant called *Pseudo-nitzschia*. The conditions that support the growth of *Pseudo-nitzschia* are impossible to predict. Crustaceans, fish and shellfish are capable of accumulating elevated levels of domoic acid without apparent ill effects on the animals. Domoic acid poisoning in humans may occur within minutes to hours after consumption of affected seafood and can result in signs and symptoms ranging from vomiting and diarrhea to permanent loss of short-term memory (Amnesic Shellfish Poisoning), coma, or death. Similar to crabs, razor clams are known to retain domoic acid for long periods of time (more than a year in some cases).

Significant Public Comments

Staff will provide a verbal report on comments received by 10:00 a.m. on Apr 25, 2016.

Recommendation

FGC staff: Adopt the proposed emergency regulations to protect public health.

Exhibits

1. Statement of Proposed Emergency Regulatory Action
2. CDPH Reminds of Warning on Razor Clams from Humboldt and Del Norte Counties, CDPH News Release, dated Apr 20, 2016
3. Domoic Acid Threat to Public Safety, OEHHA Memo, received Apr 20, 2016.

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4. Possible Recreational Razor Clam Closure in Humboldt and Del Norte Counties DFW News Release, dated Apr 20, 2016, available at <https://cdfgnews.wordpress.com/2016/04/20/possible-recreational-razor-clam-closure-in-humboldt-and-del-norte-counties/>.

Motion/Direction

Moved by _____ and seconded by _____ that the Commission determines, pursuant to sections 11125.5(b) and 11349.6 of the Government Code, that an emergency situations exists. The emergency situation clearly poses a danger of such an immediate serious harm that delaying action to allow public comment would be inconsistent with the public interest.

The Commission further determines, pursuant to Section 11125.5(b)(1) of the Government Code, that ingesting razor clams with high levels of domoic acid is a matter upon which urgent action is necessary to avoid severely impairing public health and safety and therefore holds this meeting without complying with the 10-day notice requirement of Section 11125 of the Government Code.

The Commission further determines, pursuant to Section 15061(a), Title 14, that the action is exempt from CEQA as an action necessary to prevent or mitigate an emergency as specified in 15269(c), Title 14.

The Commission further determines, pursuant to Section 240 of the Fish and Game Code, that adoption of this regulation is necessary for the immediate protection of public health and safety from ingesting elevated levels of poisonous domoic acid detected in recent samples of razor clams.

Therefore, the Commission adopts the proposed emergency changes to Section 29.45, Title 14, related to closure of the recreational razor clam fishery for the immediate preservation of public health.

From: Zubkousky, Vanessa@CDPH <Vanessa.Zubkousky@cdph.ca.gov>
Sent: Wednesday, July 25, 2018 4:59 PM
To: Jacque Smith Jaytuk Steinruck; Ken Graves (salmon700@live.com); Rosa Laucci; Tom Weseloh (Tom.weseloh@sen.ca.gov); Ashcraft, Susan@FGC; Grant, Christina@CDPH; Mastrup, Sonke@Wildlife; Stanton, Rebecca@OEHHA; Klasing, Susan@OEHHA; Amanda Ruddy (aruddy@co.humboldt.ca.us); Christen, Joe@CDPH; Ramey, Kirsten@Wildlife; Martel, Melissa (HUMBOLDT COUNTY); McNally, Brian (Del Norte); Ray, James@Wildlife; Trevena, Eric@CDPH; Walker, David@Wildlife
Subject: July Razor Clam results

Hello,

Below are the tables of the domoic acid results for razor clam samples from July. Big thanks to Doyle Coyne and Ken Graves for collecting!

The Clam Beach site in Humboldt County had 4 samples out of 10 over the 20 ppm alert level.

The Crescent Beach site in Del Norte County had no samples over the 20 ppm alert level. Note one sample was a composite of 4 small clams. This is the first group of samples from Crescent Beach to have all samples below the threshold.

Sample	Domoic acid ppm	Collection Date	Site
Razor Clam Meat	10	07/13/18	Clam Beach
Razor Clam Meat	27	07/13/18	Clam Beach
Razor Clam Meat	13	07/13/18	Clam Beach
Razor Clam Meat	21	07/13/18	Clam Beach
Razor Clam Meat	43	07/13/18	Clam Beach
Razor Clam Meat	86	07/13/18	Clam Beach
Razor Clam Meat	4.2	07/13/18	Clam Beach
Razor Clam Meat	14	07/13/18	Clam Beach
Razor Clam Meat	6.6	07/13/18	Clam Beach
Razor Clam Meat	5.1	07/13/18	Clam Beach
Razor Clam Meat	<2.5	07/13/18	Crescent Beach
Razor Clam Meat	<2.5	07/13/18	Crescent Beach
Razor Clam Meat (4 small clams pooled)	3.6	07/13/18	Crescent Beach

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