Office of Environmental Health Hazard Assessment

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Matthew Rodriquez
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MEMORANDUM

TO: Charlton H. Bonham, Director
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Michael Yaun, Interim Executive Director
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FROM: Lauren Zeise, Ph.D.
Acting Director

DATE: February 11, 2016

SUBJECT: RECOMMENDATION REGARDING OPENING OF DUNGENESS CRAB FISHERY IN STATE WATERS SOUTH OF 38° 00' N LATITUDE

The Office of Environmental Health Hazard Assessment (OEHHA) has determined, in consultation with the Department of Public Health (CDPH), that consumption of Dungeness crab taken from state waters in all areas south of Point Reyes – 38° 00' N Latitude no longer poses a significant threat for domoic acid exposure. This determination is based on data from repeated sampling of Dungeness crab taken from California waters and analysis of these samples by CDPH laboratories. Dungeness crab taken from state waters north of Point Reyes – 38° 00' N Latitude continue to have elevated levels of domoic acid and should not be consumed.

Rock crab north of 35° 40' N Latitude (near Piedras Blancas Light Station in San Luis Obispo County) and around the Channel Islands (specifically Santa Cruz, Santa Rosa and San Miguel islands) also continue to have elevated domoic acid levels; the existing closure for commercial and recreational rock crab fishing in these areas should remain in place.

As a precaution, even for crab caught from state waters in all areas south of Point Reyes, OEHHA and CDPH are recommending that people not eat the crab viscera – that is the internal organs, also known as "butter" or "guts" of crabs. We are also

recommending that water or broth used to cook crabs be discarded and not used to prepare dishes such as sauces, broths, soups, or stews. The viscera usually contain much higher levels of domoic acid than crab body meat. When whole crabs are cooked in liquid, domoic acid may leach from the viscera into the cooking liquid. This precaution is being recommended to avoid harm in the unlikely event that some crabs taken from an open fishery have elevated levels of domoic acid. These recommendations will be provided in an advisory on domoic acid in crab being released concurrently by DPH today.

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.

The current federal action levels for domoic acid in Dungeness crab are 20 ppm in the body meat and 30 ppm in the viscera. In contrast to levels seen earlier, levels of domoic acid in recent viscera samples of Dungeness crab caught from state waters in all areas south of Point Reyes all fall below the action level of 30 ppm. At each location sampled, at least two sets of samples taken at least seven days apart show low or non-detectable levels of domoic acid. The sampling results for Dungeness crab caught in waters south of Point Reyes and north of Piedras Blancas Light Station in San Luis Obsipo County are provided in the table below.

Thus, in consultation with CDPH, OEHHA finds that consumption of Dungeness crab taken from state waters in all areas south of Point Reyes – 38° 00' N Latitude does not pose a significant human health risk from high levels of domoic acid. As such, OEHHA recommends the opening of the Dungeness crab fishery in the areas south of 38°00' N Latitude and north of 35°40"N Latitude, in a manner consistent with the emergency regulations adopted by the Fish and Game Commission and the California Department of Fish and Wildlife (CDFW) on November 5 and 6, 2015, respectively.

Monitoring and analysis of Dungeness and rock crabs in areas that remain closed are continuing by CDFW, DPH, and OEHHA to determine when the crab fisheries in these areas can safely be opened.

If you have questions, please contact me at Lauren.Zeise@oehha.ca.gov or (916) 322-6325.

Sampling Results for areas south of 38°00' N and north of 35°40"N Latitude

PORT	SAMPLE COLLECTION DATE	NUMBER OF SAMPLES	VISCERA SAMPLE RESULTS: RANGE	AVERAGE LEVEL IN VISCERA	SAMPLES EXCEEDING ACTION LEVEL (30 ppm in viscera)
Bodega Bay (southern area)	11/16/15	6	14-81 ppm	51 ppm	66%
	12/1/15	6	<2.5-40 ppm	15 ppm	17%
	12/8/15	6	9.6-27 ppm	16.4 ppm	0%
	12/17/15	5	<2.5-20 ppm	10.4 ppm	0%
Half Moon and San Francisco Bays	10/26/15	12	16-130 ppm	56 ppm	83%
	11/16/15	6	<2.5-22 ppm	11 ppm	0%
	11/16/15	6	<2.5-21 ppm	10.7 ppm	0%
	12/1/15	6	<2.5-19 ppm	8.8 ppm	0%
	12/1/15	10	<2.5-39 ppm	8.9 ppm	10%
	12/8/15	9	<2.5-49 ppm	20.7 ppm	33%
	12/15/15	17	<2.5-130 ppm	33 ppm	53%
	12/27/15	6	<2.5-29 ppm	9 ppm	0%
	12/27/15	6	6.2-25 ppm	17 ppm	0%
	1/10/16	7	6.2-54 ppm	20 ppm	14%
	1/15/16	6	<2.5-25 ppm	10 ppm	0%
	1/25/16	6	<2.5-23 ppm	12 ppm	0%
	1/25/16	6	<2.5-18 ppm	4 ppm	0%
	1/25/16	6	<2.5-24 ppm	5 ppm	0%
	2/6/16	6	<2.5-11 ppm	5 ppm	0%
Monterey	9/16/15	2	6.8-74 ppm	40 ppm	50%
	10/31-11/1/15	11	<2.5-83 ppm	17 ppm	9%
	11/12/15	7	9.7-50 ppm	21 ppm	14%
	11/29/15	6	3.6-11 ppm	7 ppm	0%
	12/6/15	6	<2.5-10 ppm	5 ppm	0%
	1/12/16	6	<2.5-3.8 ppm	1.1 ppm	0%