



July 15, 2016

UPDATED FINDING OF EMERGENCY¹

(Gov. Code, § 11346.1, subd. (b); Cal. Code Regs., tit. 1, § 50)

Pursuant to Government Code section 11346.1, subdivision (b), and California Code of Regulations, Title 1, section 50, a state agency may adopt emergency regulations if the agency makes a finding that the adoption of a regulation is necessary to address a situation calling for immediate action to avoid serious harm to the public peace, health, safety, or general welfare.

The California Department of Fish and Wildlife (CDFW) submitted an emergency rulemaking that was filed by the Office of Administrative Law (OAL) on November 6, 2015 after samples of Dungeness and rock crabs were found to contain high domoic acid levels. The emergency rulemaking closed the commercial rock crab fishery north of the Ventura/Santa Barbara county line and delayed the opening of the commercial Dungeness crab fishery statewide. The Office of Environmental Health Hazard Assessment (OEHHA) has continued to regularly monitor domoic acid levels in rock crab and Dungeness crab along the California coast since the emergency regulations were filed. Pursuant to those regulations, the Director of CDFW has reopened certain state waters along the California coast to commercial fishing based on the results of domoic acid testing and the recommendations of OEHHA in consultation with the Director of the California Department of Public Health (CDPH). Parallel regulations adopted by the Fish and Game Commission opened certain state waters to recreational fishing. The timeline for those openings is as follows:

- On December 31, 2015, the recreational Dungeness crab and both commercial and recreational rock crab fisheries were reopened in state waters south of 35° 40' N. Latitude (near Piedras Blancas Light Station).
- On February 11, 2016, the recreational Dungeness crab fishery was reopened in state waters south of 38° 00' N. Latitude (near Point Reyes).
- On March 18, 2016, the recreational Dungeness crab fishery was reopened in state waters south of the Mendocino/Sonoma county line (near Gualala).
- **On March 26, 2016 the commercial Dungeness crab fishery was reopened south of the Mendocino/Sonoma county line seven days later, in accordance with the emergency regulations.**

¹ Changes since the April 12, 2016 Updated Finding of Emergency are indicated in **bold** text.

- On March 28, 2016, the recreational and commercial rock crab fisheries were reopened in the Channel Islands, with the exception of state waters between Santa Cruz and Santa Rosa islands.
- **On April 22, 2016 the recreational Dungeness crab fishery was reopened from Humboldt Bay south to the Mendocino/Sonoma county line.**
- **On May 2, 2016 the recreational Dungeness crab fishery was reopened in Del Norte County and northern Humboldt County excluding the area around Trinidad.**
- **On May 12, 2016 the commercial Dungeness crab fishery was reopened in District 7 and part of District 6, excluding the area around Trinidad.**
- **On May 19, 2016 the recreational Dungeness crab fishery was reopened around Trinidad, resulting in fishery now open statewide.**
- **On May 26, 2016 the commercial Dungeness crab fishery was reopened around Trinidad, resulting in fishery now open statewide.**
- **On June 30, 2016, the recreational and commercial Dungeness crab fishery season closed south of the Mendocino/Sonoma county line.**
- **July 6, 2016 the commercial and recreational rock crab fisheries opened areas were extended northward to Pigeon Pt, San Mateo County.**
- **On July 15, 2016, the commercial Dungeness crab fishery season closed north of the Mendocino/Sonoma county line.**
- **On July 30, 2016, the recreational Dungeness crab fishery season will close north of the Mendocino/Sonoma county line.**

The most recent rock crab samples obtained north of the present open areas, in Sonoma and Humboldt counties showed high domoic acid levels. The emergency closure remains in effect for commercial and recreational rock crab fisheries north of **Pigeon Pt., San Mateo County.** Therefore CDFW is proposing to readopt the emergency regulations for a period of 90 days following the initial 180-day effective time period **and the subsequent 90 day extension, which ends on August 3.** **The proposed readoption is necessary to continue the emergency closure in state ocean waters with persistent high levels of domoic acid** prior to the end of the commercial and sport Dungeness and rock crab fishing seasons. Consuming crab from these areas poses a significant risk to public health as determined by the Director of OEHHA, in consultation with the Director of CDPH. Thus readopting the emergency closure for a period of 90 days beyond the initial **270** day period is necessary for the preservation of the public peace, health, safety, or general welfare.

Specific Facts Demonstrating the Existence of an Emergency and Need for Immediate Action

Current laws and regulations for commercial take of rock crab specify size limits, trap, bag and possession limits, closed fishing areas, and gear restrictions. The

commercial Dungeness crab fishery is now closed statewide under its normal seasons and will not reopen prior to November 1.

Domoic acid is produced from species of the marine diatom *Pseudo-nitzschia*. A massive toxic bloom of *Pseudo-nitzschia* developed between the spring and fall of 2015, significantly impacting marine life along California's coast. Algal blooms are common, but this one **has been** particularly large and persistent. Warmer ocean water temperatures associated with the El Niño event California **has experienced was** likely a major contributing factor to the size and persistence of this bloom.

State scientists had been continuously testing crab samples from nine fishing ports between Santa Barbara and Crescent City, and while **all** areas have shown improvement **with regard to Dungeness crab which has reopened** to fishing since the emergency rulemaking, other areas remain closed **to rock crab** due to persistent high levels of domoic acid, exceeding the state action level in the viscera of crab samples, commonly referred to as crab butter, and therefore pose a significant risk to the public if they are consumed.

On November 3, 2016, the CDPH issued a health advisory warning individuals to avoid eating Dungeness crab and rock crab due to the detection of high levels of domoic acid. The advisory was followed by a recommendation from the OEHHA to the Fish and Game Commission and the CDFW to delay the start of the recreational and commercial Dungeness crab season and close the recreational and commercial rock crab fishery. This action applied to both fisheries from the Oregon border to the southern Santa Barbara County line.

Domoic acid is a potent neurotoxin that can accumulate in shellfish, other invertebrates and sometimes fish. It causes illness and sometimes death in a variety of birds and marine mammals that consume affected organisms. At low levels, domoic acid exposure can cause nausea, diarrhea and dizziness in humans. At higher levels, it can cause persistent short-term memory loss, seizures and can in some cases be fatal.

Symptoms of domoic acid poisoning can occur within 30 minutes to 24 hours after eating toxic seafood. In mild cases, symptoms may include vomiting, diarrhea, abdominal cramps, headache and dizziness. These symptoms disappear within several days. In severe cases, the victim may experience trouble breathing, confusion, disorientation, cardiovascular instability, seizures, excessive bronchial secretions, permanent loss of short-term memory, coma, or death.

The CDFW proposes to readopt this emergency rulemaking action to continue the closure for **the commercial rock crab fishery** based on the significant risk to public health that exists due to unsafe domoic acid levels **in all** rock crab (rock crab, *Cancer antennarius*, yellow crab, *Cancer anthonyi*, and red crab, *Cancer productus*) as determined by the Director of the OEHHA, in consultation with the Director of the CDPH, pursuant to the authority vested by Fish and Game Code section 7715. The

commercial rock crab fishery remains closed north of **37° 11'** North Latitude. **The commercial Dungeness crab fishery is now closed statewide under its normal seasons and will not reopen prior to November 1.**

Technical, Theoretical, and/or Empirical Studies, Reports, or Documents Relied Upon

The Department relied on the following documents in proposing this emergency rulemaking action:

California Department of Public Health News Release. CPDH Issues Warning about the Dungeness and Rock Crabs Caught in Waters Along the Central and Northern California Coast, November 3, 2015, <http://www.cdph.ca.gov/Pages/NR15-082.aspx>

Office of Environmental Health Hazard Assessment, Memorandum to Charlton H. Bonham, Director of the California Department of Fish and Wildlife, Subject: Domoic Acid Threat to Public Health in Dungeness Crab, November 6, 2015.

California Department of Public Health News Release. Dungeness and Rock Crab Health Advisory Partially Lifted along the California Coast, December 31, 2015, <http://www.cdph.ca.gov/Pages/NR15-094.aspx>

Office of Environmental Health Hazard Assessment, Memorandum to Charlton H. Bonham, Director of the California Department of Fish and Wildlife, Subject: Recommendations on Opening Dungeness and Rock Crab From Mainland Coasts of San Luis Obispo County and Counties to the South, December 31, 2015.

California Department of Public Health News Release. Dungeness Crab Health Advisory Lifted along Central California Coast, February 11, 2016, <http://www.cdph.ca.gov/Pages/NR16-007.aspx>

Office of Environmental Health Hazard Assessment, Memorandum to Charlton H. Bonham, Director of the California Department of Fish and Wildlife, Subject: Recommendation Regarding Opening of Dungeness Crab Fishery in State Waters South of 38° 00' N Latitude, February 11, 2016.

California Department of Public Health News Release. Dungeness Crab Health Advisory Lifted in Sonoma County, March 18, 2016, <http://www.cdph.ca.gov/Pages/NR16-014.aspx>

Office of Environmental Health Hazard Assessment, Memorandum to Charlton H. Bonham, Director of the California Department of Fish and Wildlife, Subject: Recommendation on Opening of Dungeness Crab Fishery in State Waters South of the Sonoma/Mendocino County Line, March 18, 2016.

California Department of Public Health News Release. Rock Crab Health Advisory Lifted near Channel Islands, March 28, 2016, <https://www.cdph.ca.gov/Pages/NR16-017.aspx>

Office of Environmental Health Hazard Assessment, Memorandum to Charlton H. Bonham, Director of the California Department of Fish and Wildlife, Subject: Recommendation on Opening Rock Crab Fishery near Channel Islands, with the Exception of One Area, March 28, 2016.

California Department of Public Health News Release. Rock Crab Health Advisory Lifted for Monterey County, April 22, 2016, <https://www.cdph.ca.gov/Pages/NR16-023.aspx>

California Department of Public Health News Release. Dungeness Crab Health Advisory Lifted for Mendocino and Portions of Humboldt Counties, April 22, 2016, <https://www.cdph.ca.gov/Pages/NR16-022.aspx>

Office of Environmental Health Hazard Assessment, Memorandum to Charlton H. Bonham, Director of the California Department of Fish and Wildlife, Subject: Recommendation on Opening Rock Crab Fishery South of 36° 58.72' N Latitude, with One Exception, April 22, 2016.

Office of Environmental Health Hazard Assessment, Memorandum to Charlton H. Bonham, Director of the California Department of Fish and Wildlife, Subject: Recommendation on Opening of Dungeness Crab Fishery in State Waters of Mendocino and Portions of Humboldt Counties, April 22, 2016.

California Department of Public Health News Release. Dungeness Crab Health Advisory Lifted Along Northern California Coast, May 2, 2016, <https://www.cdph.ca.gov/Pages/NR16-026.aspx>

Office of Environmental Health Hazard Assessment, Memorandum to Charlton H. Bonham, Director of the California Department of Fish and Wildlife, Subject: Recommendation on Opening of Dungeness Crab Fishery in State Waters Between the California/Oregon Border and 41° 17.60' N Latitude, May 2, 2016.

California Department of Public Health News Release. Final Dungeness Crab Health Advisory Lifted Along California Coast, May 9, 2016, <https://www.cdph.ca.gov/Pages/NR16-028.aspx>

Office of Environmental Health Hazard Assessment, Memorandum to Charlton H. Bonham, Director of the California Department of Fish and Wildlife, Subject: Recommendation on Opening of the Last Remaining Area Closed to Dungeness Crab Fishing, May 9, 2016.

California Department of Public Health News Release. Rock Crab Health Advisory Lifted for Remainder of Channel Islands, June 3, 2016,
<https://www.cdph.ca.gov/Pages/NR16-034.aspx>

Office of Environmental Health Hazard Assessment, Memorandum to Charlton H. Bonham, Director of the California Department of Fish and Wildlife, Subject: Recommendation on Opening Rock Crab Fishery Near Channel Islands, June 3, 2016.

California Department of Public Health News Release. Rock Crab Health Advisory Lifted in Portions of San Mateo County, July 6, 2016,
<https://www.cdph.ca.gov/Pages/NR16-041.aspx>

Office of Environmental Health Hazard Assessment, Memorandum to Charlton H. Bonham, Director of the California Department of Fish and Wildlife, Subject: Recommendation on Opening of Rock Crab Fishery in Portions of San Mateo County, July 6, 2016.

AUTHORITY AND REFERENCE

(Gov. Code, § 11346.5, subd. (a)(2))

Authority cited: Section 7715, Fish and Game Code.

Reference: Sections 7715, 8276, 8279.1 and 8282, Fish and Game Code.

INFORMATIVE DIGEST/POLICY STATEMENT OVERVIEW

(Gov. Code, § 11346.5, subd. (a)(3))

The California Department of Fish and Wildlife (CDFW) submitted an emergency rulemaking that was filed by the Office of Administrative Law (OAL) on November 6, 2015 after samples of Dungeness and rock crabs were found to contain high domoic acid levels. The emergency rulemaking closed the commercial rock crab fishery north of the Ventura/Santa Barbara county line and delayed the opening of the commercial Dungeness crab fishery statewide. **High domoic acid levels are persisting in rock crab samples from some areas of the state warranting the readoption of the emergency regulation for an additional 90 days beyond the initial 180-day effective period and subsequent 90 day extension.**

Domoic acid is produced from some species of the marine diatom *Pseudo-nitzschia*. A massive toxic bloom of *Pseudo-nitzschia* developed between spring and fall of 2015, significantly impacting marine life along California's coast. Algal blooms are common,

but this one **has been** particularly large and persistent. Warmer ocean water temperatures associated with the El Niño event California **has been experiencing was** likely a major contributing factor to the size and persistence of this bloom.

State scientists have **been continually** testing crab samples from nine fishing ports between Santa Barbara and Crescent City, and while some all areas have shown improvement **as the Dungeness crab was opened to fishing prior to the normal season closures** since the emergency rulemaking, **rock crab remains closed in some areas** due to persistent high levels of domoic acid, exceeding the state action level in the viscera of crab samples, commonly referred to as crab butter, and therefore pose a significant risk to the public if they are consumed.

Domoic acid is a potent neurotoxin that can accumulate in shellfish, other invertebrates and sometimes fish. It causes illness and sometimes death in a variety of birds and marine mammals that consume affected organisms. At low levels, domoic acid exposure can cause nausea, diarrhea and dizziness in humans. At higher levels, it can cause persistent short-term memory loss, seizures and can in some cases be fatal.

Symptoms of domoic acid poisoning can occur within 30 minutes to 24 hours after eating toxic seafood. In mild cases, symptoms may include vomiting, diarrhea, abdominal cramps, headache and dizziness. These symptoms disappear within several days. In severe cases, the victim may experience trouble breathing, confusion, disorientation, cardiovascular instability, seizures, excessive bronchial secretions, permanent loss of short-term memory, coma, or death.

The CDFW proposes to readopt this emergency rulemaking action for a period of 90 days to continue the closure for the **commercial rock** crab fishery based on the significant risk to public health that exists due to unsafe domoic acid levels **in all** rock crab (rock crab, *Cancer antennarius*, yellow crab, *Cancer anthonyi*, and red crab, *Cancer productus*)) as determined by the Director of the OEHHA, in consultation with the Director of the CDPH, pursuant to the authority vested by Fish and Game Code section 7715. The commercial rock crab fishery remains closed north of **37° 11'** North Latitude. **The commercial Dungeness crab fishery is now closed statewide under its normal seasons and will not reopen prior to November 1.**

The Proposed Regulation Does Not Differ or Conflict with Federal Law

The emergency regulation does not differ substantially or conflict with an existing comparable federal regulation or statute.

The Proposed Regulation is Not Inconsistent or Incompatible with Existing State Regulations

The Department conducted an evaluation of existing regulations and the emergency regulation is neither inconsistent nor incompatible with existing state regulations.

Benefits of the Proposed Regulation

Continuing the emergency rulemaking and closure will benefit the general public by reducing a significant risk to public health as determined by the Director of the OEHHA, in consultation with the Director of the CDPH.

OTHER MATTERS PRESCRIBED BY STATUTE

(Gov. Code, § 11346.5, subd. (a)(4))

The Department's operations are primarily prescribed by the hundreds of provisions set forth in the California Fish and Game Code and Title 14, California Code of Regulations. Other bodies of law that govern the Department include, but are not limited to, the Government and Penal Codes.

LOCAL MANDATE DETERMINATION

(Gov. Code, § 11346.5, subd. (a)(5))

The Department has determined that maintaining California Code of Regulations, Title 14, section 131 does not impose a new mandate on local agencies or schools districts.

ESTIMATE OF COST OR SAVINGS

(Gov. Code, § 11346.5, subd. (a)(6))

Dungeness Crab Fishery

The Dungeness crab commercial season begins normally on November 15 onward to mid-July. The last three years of Dungeness crab landings in the closure area (Oregon border to southern Santa Barbara County) were examined to derive an estimate of the potential loss in landings tax receipts. The average weekly landings tax receipts over the 35-week season varies from highs of \$4,414 in the opening month of November; to the low at the end of the season in July of \$42; with the weekly average over the entire season being \$1,050. The closure is effectively a postponement of the season opening, and in the event that the closure is lifted, the opening season high catch volumes and landings tax receipts are anticipated. While the higher initial losses should be captured at the later season opening, the entire season length would be shortened by the effective closure period resulting in total tax revenue losses of an estimated \$1,050 per week that the season is shortened.

Rock Crab Fishery

The rock crab commercial season is open year round. The last three years of rock crab landings in the closure area (Oregon border to southern Santa Barbara County) were examined to derive an estimate of the potential loss in landings tax receipts. The

average weekly catch and associated landings tax receipts do not vary much throughout the year. The weekly average landings tax revenue is \$55 per week. The closure will effectively reduce the annual season length, such that the anticipated annual losses would be incurred at approximately \$55 per week. However upon first re-opening the rock crab fishery, the catch volume and landings tax revenue may exceed the average under the normal year round season.

Other Tax Revenues to the State

The total value (including state sales and income tax) of the Dungeness crab harvest was about \$59 million in the 2013-14 season as the catch from about 500 commercial vessels is brought to market and passed through to processors, dockworkers, truckers and others. The total value of the crab harvest is estimated to contribute about \$6 million in sales and income tax revenue to the state annually. This is approximately \$115,400 in sales and income taxes per week.

The continued emergency rulemaking will not result in any costs or savings to local agencies or school districts and does not affect federal funding to the state. Estimated costs to the State in terms of reduced landing tax revenues are estimated at \$1,050 per week that the season is shortened. There are no nondiscretionary costs or savings imposed on local agencies. There are no costs or savings in federal funding to the State.