

STAFF SUMMARY FOR OCTOBER 19-20, 2016

9. RAZOR CLAM EMERGENCY**Today's Item**Information Action

Re-adopt emergency regulation to close the recreational razor clam fishery for Humboldt and Del Norte counties.

Summary of Previous/Future Actions

- Emergency Regulations adopted Apr 25, 2016; Emergency Teleconference
- **Today's Re-adoption hearing Oct 19-20, 2016; Eureka**

Background

On Apr 25, 2016, due to high levels of domoic acid and under recommendation from the Office of Environmental Health Hazard Assessment (OEHHA) in consultation with the California Department of Public Health (CDPH), FGC adopted an emergency regulation to close the recreational razor clam fishery for Humboldt and Del Norte counties. The emergency regulation will expire on October 25, 2016.

The Director of OEHHA, in consultation with the Director of CDPH, has **not** determined that domoic acid levels in razor clams no longer pose a significant risk to public health and has **not** recommended that fishery no longer be closed. Re-adopting the emergency closure for a period of 90 days beyond the initial 180-day period is necessary for the preservation of public health.

Please see the Staff Summary for the Apr 25, 2016, FGC meeting for additional background information (Exhibit 1).

For additional information about the domoic acid task force, please refer to today's agenda item 11(A).

Significant Public Comments (N/A)**Recommendation**

FGC staff: Re-adopt the emergency regulation to retain closure of the recreational razor clam fishery in Humboldt and Del Norte counties.

Exhibits

1. [Staff Summary for Apr 25, 2016, FGC meeting, Item 2](#)
2. [Apr 2016 Statement of Proposed Emergency Regulatory Action, approved by the Office of Administrative Law, filed with the Secretary of State, and effective Apr 26, 2016 – Oct 24, 2016.](#)
3. [Statement of Proposed Emergency Regulatory Action for Re-adoption of Emergency Regulations – Oct 2016](#)
4. [Razor Clam Update email from Gregg Langlois, CDPH, dated Jul 29, 2016](#)
5. [Razor Clam Update email from Joe Christen, CDPH, dated Sep 6, 2016](#)

STAFF SUMMARY FOR OCTOBER 19-20, 2016

Motion/Direction

Moved by _____ and seconded by _____ that the Commission determines that, pursuant to California Code of Regulations Title 14, Section 15061(a), the action is exempt from CEQA as an action necessary to prevent or mitigate an emergency as specified in California Code of Regulations Title 14, Section 15269(c).

The Commission further determines, pursuant to Section 240 of the Fish and Game Code and Section 11346.1 of the Government Code, that adoption of this regulation is necessary for the immediate protection of public health from ingesting elevated levels of poisonous domoic acid detected in samples of razor clams.

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

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 situation 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.

CALIFORNIA FISH AND GAME COMMISSION
STATEMENT OF PROPOSED EMERGENCY REGULATORY ACTION

Emergency Action to
Amend Section 29.45,
Title 14, California Code of Regulations
Re: Emergency Closure of Razor Clam Fishery Due to Elevated Levels of Domoic Acid

I. Statement of Facts Constituting the Need for Emergency Regulatory Action

Under existing law, razor clams may be taken for recreational purposes with a sport fishing license subject to regulations prescribed by the Fish and Game Commission (Commission).

The current regulation specifies the seasons, size limit, and bag limit for recreational take of razor clams. The razor clam season for Humboldt County at Little River Beach is open between Mad River and Strawberry Creek only during even-numbered years and between Strawberry Creek and Moonstone Beach 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 all year.

Recent test results indicate immediate action is needed to address an emergency situation involving a severe threat to public health and safety from the potential human consumption of razor clams with high levels of domoic acid harvested along the coast of Del Norte and Humboldt counties (along Crescent and Clam beaches). 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.

The current federal action level for domoic acid in clams is 20 parts per million (ppm). Data in razor clams collected this month from the coast of Del Norte and Humboldt counties show that all but one of the samples (17 out of 18) exceeded the action level of 20 ppm, with one third of the samples above 100 ppm, and therefore pose a significant risk to the public if they are consumed, as determined by the Office of Environmental Health Hazard Assessment (OEHHA) in consultation with the California Department of Public Health (CDPH). As a result,

OEHHA has recommended the fishery be closed for Del Norte and Humboldt counties.

This emergency situation clearly poses such an immediate, serious harm that delaying action to allow for public comment and notice requirements, pursuant to Section 11346.1 of the Government Code, would be inconsistent with the public interest.

Identification of Reports or Documents Supporting Factual Emergency

- California Department of Public Health, "CDPH Reminds of Warning on Razor Clams from Humboldt and Del Norte Counties," News Release, April 20, 2016
- California Office of Environmental Health Hazard Assessment, "Domoic Acid Threat to Public Health from Razor Clams in Del Norte and Humboldt Counties," Memo, April 20, 2016.

Regulatory Proposal

The proposed regulation would prohibit recreational take and possession of razor clams in Del Norte and Humboldt counties. Closure of the fishery shall remain in effect until the director of OEHHA, in consultation with the director of CDPH, determines that domoic acid levels in razor clams no longer pose a significant risk to public health and no longer recommends the fishery be closed.

The Department shall maintain a list of closed ocean waters of the state and update that list on Wednesday of each week by 1:00 pm. It shall be the responsibility of any person taking razor clams to call the Department's hotline at 831) 649-2883 or visit the Department's website at www.wildlife.ca.gov/Fishing/Ocean/Health-Advisories to obtain the current status of any ocean water.

II. Impact of Regulatory Action

The potential for significant statewide adverse economic impacts that might result from the proposed regulatory action has been assessed, and the following determinations relative to the required statutory categories have been made:

- (a) Costs or Savings to State Agencies or Costs/Savings in Federal Funding to the State:

None.

- (b) Nondiscretionary Costs/Savings to Local Agencies:

None.

(c) Programs Mandated on Local Agencies or School Districts:

None.

(d) Costs Imposed on Any Local Agency or School District that is Required to be Reimbursed Under Part 7 (commencing with Section 17500) of Division 4, Government Code:

None.

(e) Effect on Housing Costs:

None.

III. Authority and Reference

The Fish and Game Commission proposes this emergency action pursuant to the authority vested by sections 200, 202, 205, 220, and 240, of the Fish and Game Code and to implement, interpret, or make specific sections 200, 202, 205, 206, 220, and 240, of said Code.

IV. Section 240 Finding

Pursuant to Section 240 of the Fish and Game Code, the Commission finds that the adoption of this regulation is necessary for the immediate protection of public health that may result from elevated levels of domoic acid detected in samples of razor clams.

Informative Digest (Plain English Overview)

The current regulation specifies the seasons, size limits, and bag limits for recreational take of razor clams. The razor clam season for Humboldt County at Little River Beach is open between Mad River and Strawberry Creek only during even-numbered years and between Strawberry Creek and Moonstone Beach 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 all year.

Proposed Regulatory Action: The proposed regulation would prohibit recreational take and possession of razor clams in Del Norte and Humboldt counties. Closure of the fisheries shall remain in effect until the director of the Office of Environmental Health Hazard Assessment, in consultation with the director of the California Department of Public Health, determines that domoic acid levels in razor clams no longer pose a significant risk to public health and no longer recommends the fishery be closed.

The Department shall maintain a list of closed ocean waters of the state and update that list on Wednesday of each week by 1:00 pm. It shall be the responsibility of any person taking razor clams to call the Department's hotline at (831) 649-2883 or visit to the Department's website at www.wildlife.ca.gov/Fishing/Ocean/Health-Advisories to obtain the current status of any ocean water.

Benefits: The proposed regulation will protect public health by prohibiting the take and possession of razor clams containing elevated levels of domoic acid.

The proposed regulations are neither inconsistent nor incompatible with existing state regulations. The Legislature has delegated authority to the Commission to promulgate sport fishing regulations (sections 200, 202, 205, 220, and 240, Fish and Game Code).

Regulatory Language

Section 29.45, Title 14, CCR, is amended to read:

29.45. Razor Clams.

(a) Open season:

(1) Notwithstanding subsections (a)(2), (a)(3) and (a)(4) razor clams may not be taken or possessed in Del Norte and Humboldt counties where the Director of the Office of Environmental Health Hazard Assessment, in consultation with the Director of the California Department of Public Health, has determined that razor clams contain unhealthy domoic acid levels and recommends closing the fishery. The open seasons specified in subsections (a)(2), (a)(3) and (a)(4) only apply at such time as the Director of the Office of Environmental Health Hazard Assessment, in consultation with the Director of the California Department of Public Health, determines that domoic acid levels in razor clams no longer pose a significant risk to public health and no longer recommends the fishery be closed. The department shall maintain a list of closed ocean waters of the state and update that list on Wednesday of each week by 1:00 pm. It shall be the responsibility of any person prior to taking razor clams to call (831) 649-2883 or go to the department's website at www.wildlife.ca.gov/Fishing/Ocean/Health-Advisories to obtain the current status of any ocean water.

~~(4)~~ (2) Little River Beach in Humboldt County: Except as provided in subsection (a)(1), ~~Between~~between Mad River and Strawberry Creek open only during even-numbered years; between Strawberry Creek and Moonstone Beach open only during odd-numbered years.

~~(2)~~ (3) In Del Norte County: Except as provided in subsection (a)(1), ~~North-north~~ of Battery Point open only during odd-numbered years; south of Battery Point open only during even-numbered years.

~~(3)~~ (4) All other areas: Open all year, except as provided in subsection (a)(1).

(b) Limit: Twenty. The first twenty clams dug must be retained as the bag limit regardless of size or broken condition.

Note: Authority cited: Sections 200, 202, 205, 210, ~~219 and 220,~~ 219, 220, and 240, Fish and Game Code. Reference: Sections 200-202, 203.1, ~~205-210 and 215-222,~~ 205-210, 215-222 and 240, Fish and Game Code.

CALIFORNIA FISH AND GAME COMMISSION
STATEMENT OF PROPOSED EMERGENCY REGULATORY ACTION
FOR RE-ADOPTION OF EMERGENCY REGULATION

Emergency Action to
Re-adopt Amendments to Section 29.45,
Title 14, California Code of Regulations
Re: Re-adoption of Emergency Closure of Razor Clam Fishery
Due to Elevated Levels of Domoic Acid

I. Statement of Facts Constituting the Need for Emergency Regulatory Action

The Fish and Game Commission (Commission) filed an emergency rulemaking with the Office of Administrative Law (OAL) on April 25, 2016, after samples of razor clams were found to contain high levels of domoic acid. The emergency rulemaking closed the recreational razor clam fishery in Del Norte and Humboldt counties. The emergency regulation was approved by OAL, filed with the Secretary of State, and effective on April 26, 2016. The emergency regulation will expire on October 25, 2016.

The Office of Environmental Health Hazard Assessment (OEHHA), in cooperation with the Department of Fish and Wildlife (Department), has continued to monitor domoic acid levels in razor clams along the California coast since the emergency regulation was filed. Past history with such situations suggested that the emergency would resolve itself within the original 180-day effective period of the emergency regulation as domoic acid levels naturally subsided. However, OEHHA has not yet notified the Commission that domoic acid levels in razor clams have returned to below the federal action level (20 parts per million). Therefore, consuming razor clams from Del Norte and Humboldt counties continues to pose a significant risk to public health as determined by the Director of OEHHA, in consultation with the Director of CDPH. Thus, re-adopting the emergency closure for a period of 90 days beyond the initial 180-day period is necessary for the preservation of public health and safety.

II. Identification of Reports or Documents Supporting Factual Emergency

The Commission relied upon the following documents in proposing this emergency rulemaking action:

- California Department of Public Health, "CDPH Reminds of Warning on Razor Clams from Humboldt and Del Norte Counties," News Release, April 20, 2016

- California Office of Environmental Health Hazard Assessment, “Domoic Acid Threat to Public Health from Razor Clams in Del Norte and Humboldt Counties,” Memo, April 20, 2016
- Razor Clam Update email from Gregg Langlois, California Department of Public Health, dated July 29, 2016
- Razor Clam Update email from Joe Christen, California Department of Public Health, dated September 6, 2016

III. Regulatory Proposal

The proposed regulation would prohibit recreational take and possession of razor clams in Del Norte and Humboldt counties. Closure of the fishery shall remain in effect until the director of OEHHA, in consultation with the director of CDPH, determines that domoic acid levels in razor clams no longer pose a significant risk to public health and no longer recommends the fishery be closed.

The Department shall maintain a list of closed ocean waters of the state and update that list on Wednesday of each week by 1:00 pm. It shall be the responsibility of any person taking razor clams to call the Department’s hotline at or visit the Department’s website at to obtain the current status of any ocean water.

IV. Impact of Regulatory Action

The potential for significant statewide adverse economic impacts that might result from the proposed regulatory action has been assessed, and the following determinations relative to the required statutory categories have been made:

- (a) Costs or Savings to State Agencies or Costs/Savings in Federal Funding to the State:

None.

- (b) Nondiscretionary Costs/Savings to Local Agencies:

None.

- (c) Programs Mandated on Local Agencies or School Districts:

None.

- (d) Costs Imposed on Any Local Agency or School District that is Required to be Reimbursed Under Part 7 (commencing with Section 17500) of Division 4, Government Code:

None.

(e) Effect on Housing Costs:

None.

V. Re-adoption Criteria

Pursuant to Government Code Section 11346.1(h), the text of a re-adopted regulation must be the “same or substantially equivalent” to the text of the original emergency regulation. The language for the re-adopted regulatory amendment is the same as the language of the original emergency regulation.

In addition, Government Code Section 11346.1(h) specifies that the emergency rulemaking agency must demonstrate that it is making “substantial progress and has proceeded with due diligence” to comply with standard rulemaking provisions. At its October 19-20, 2016, meeting, the Commission will receive an update on testing and sampling levels of domoic acid. Past history with such situations suggested that the emergency would resolve itself within the original 180 days as domoic acid levels naturally subsided. However, at its October 19-20, 2016, meeting, the Commission is expected to determine that an emergency situation still exists and re-adopt the emergency closure for a period of 90 days beyond the initial 180-day period as it is necessary for the preservation of public health and safety. Given this unique situation, a state interagency task force that includes the Commission has been created to proactively address harmful algal blooms that result in high levels of domoic acid and to identify solutions for more quickly addressing public health and safety.

VI. Authority and Reference

The Commission proposes this emergency action pursuant to the authority vested by Sections 200, 202, 205, 220, and 240, of the Fish and Game Code and to implement, interpret, or make specific Sections 200, 202, 205, 206, 220, and 240, of said Code.

VII. Section 240 Finding

Pursuant to Section 240 of the Fish and Game Code, the Commission finds that the adoption of this regulation is necessary for the immediate protection of public health that may result from elevated levels of domoic acid detected in samples of razor clams.

Informative Digest (Plain English Overview)

The Fish and Game Commission (Commission) filed an emergency rulemaking with the Office of Administrative Law (OAL) on April 25, 2016, after samples of razor clams were found to contain high levels of domoic acid. The emergency rulemaking closed the recreational razor clam fishery in Del Norte and Humboldt counties. The emergency regulation was approved by OAL, filed with the Secretary of State, and effective on April 26, 2016. The emergency regulation will expire on October 25, 2016.

The Office of Environmental Health Hazard Assessment (OEHHA), in cooperation with the Department of Fish and Wildlife (Department), has continued to monitor domoic acid levels in razor clams along the California coast since the emergency regulation was filed. Past history with such situations suggested that the emergency would resolve itself within the original 180-day effective period of the emergency regulation as domoic acid levels naturally subsided. However, OEHHA has not yet notified the Commission that domoic acid levels in razor clams have returned to below the federal action level. Therefore, consuming razor clams from Del Norte and Humboldt counties continues to pose a significant risk to public health as determined by the Director of OEHHA, in consultation with the Director of CDPH. Thus, re-adopting the emergency closure for a period of 90 days beyond the initial 180-day period is necessary for the preservation of public health and safety.

Proposed Regulatory Action: The proposed regulation would prohibit recreational take and possession of razor clams in Del Norte and Humboldt counties. Closure of the fishery shall remain in effect until the director of OEHHA, in consultation with the director of CDPH, determines that domoic acid levels in razor clams no longer pose a significant risk to public health and no longer recommends the fishery be closed.

The Department shall maintain a list of closed ocean waters of the state and update that list on Wednesday of each week by 1:00 pm. It shall be the responsibility of any person taking razor clams to call the Department's hotline or visit to the Department's website to obtain the current status of any ocean water.

Benefits: The proposed regulation will protect public health and safety by prohibiting the take and possession of razor clams containing elevated levels of domoic acid.

Evaluation of Incompatibility with Existing Regulations: The proposed regulations are neither inconsistent nor incompatible with existing state regulations. The Legislature has delegated authority to the Commission to promulgate sport fishing regulations (Sections 200, 202, 205, 220, and 240, Fish and Game Code).

Regulatory Language

Section 29.45, Title 14, CCR, is amended to read:

29.45. Razor Clams.

(a) Open season:

(1) Notwithstanding subsections (a)(2), (a)(3) and (a)(4) razor clams may not be taken or possessed in Del Norte and Humboldt counties where the Director of the Office of Environmental Health Hazard Assessment, in consultation with the Director of the California Department of Public Health, has determined that razor clams contain unhealthy domoic acid levels and recommends closing the fishery. The open seasons specified in subsections (a)(2), (a)(3) and (a)(4) only apply at such time as the Director of the Office of Environmental Health Hazard Assessment, in consultation with the Director of the California Department of Public Health, determines that domoic acid levels in razor clams no longer pose a significant risk to public health and no longer recommends the fishery be closed. The department shall maintain a list of closed ocean waters of the state and update that list on Wednesday of each week by 1:00 pm. It shall be the responsibility of any person prior to taking razor clams to call (831) 649-2883 or go to the department's website at www.wildlife.ca.gov/Fishing/Ocean/Health-Advisories to obtain the current status of any ocean water.

(4)(2) Little River Beach in Humboldt County: Except as provided in subsection (a)(1), Betweenbetween Mad River and Strawberry Creek open only during even-numbered years; between Strawberry Creek and Moonstone Beach open only during odd-numbered years.

(2)(3) In Del Norte County: Except as provided in subsection (a)(1), Northnorth of Battery Point open only during odd-numbered years; south of Battery Point open only during even-numbered years.

(3)(4) All other areas: Open all year, except as provided in subsection (a)(1).

(b) Limit: Twenty. The first twenty clams dug must be retained as the bag limit regardless of size or broken condition.

Note: Authority cited: Sections 200, 202, 205, 210, ~~219 and 220~~,219, 220, and 240, Fish and Game Code. Reference: Sections 200-202, 203.1, ~~205-210 and 215-222~~,205-210, 215-222 and 240, Fish and Game Code.

From: [Langlois, Gregg \(CDPH-DDWEM\)](mailto:Langlois.Gregg@CDPH-DDWEM)
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Cc: [Trevena, Eric \(CDPH-DDWEM\)](mailto:Trevena.Eric@CDPH-DDWEM); [Yamada, Kelvin \(CDPH-DDWEM-EMB\)](mailto:Yamada.Kelvin@CDPH-DDWEM-EMB)
Subject: Razor Clam Update
Date: Friday, July 29, 2016 8:59:17 AM
Attachments: [image001.png](#)

Domoic acid concentrations ranged from 97 – 230 ppm in the razor clam meat samples from Crescent City. The mussel sample from Hunter’s Rock in northern Del Norte Co. had a very low level, just above the detection limit. Humboldt Bay mussels were nondetect.

There is also a very high concentration of domoic acid in mussels from the Monterey Commercial Wharf (70 ppm). Interestingly mussels from the Santa Cruz Pier are nondetect (same collection date as the Monterey sample).

Future updates will be provided by Eric Trevena, our Environmental Health Services Section Chief (cc’d here), or one of our program staff. It’s been a pleasure working with you all and I know I will see some of you in the future. Cheers!

Gregg

MDL	Species	Result (ppm)	Coll_Date	Collector	Agency	Site
M16D00123	rock scallop adductors	< 2.5	7/20/2016	Kim	MAC	Monterey Bay Com Pier2
M16D00124	rock scallops viscera	3.3	7/20/2016	Kim	MAC	Monterey Bay Com Pier2
M16P00498	mussels	70	7/20/2016	Kim	MAC	Monterey Bay Com Pier2
M16P00499	mussels	< 2.5	7/14/2016	Halle	OCEHD	Newport Pier
M16P00500	mussels	< 2.5	7/20/2016	Patrick	MERSC	Santa Cruz Pier
M16P00501	mussels	< 2.5	7/21/2016	JJC	EMB	Schoolhouse Beach
M16P00503	mussels	< 2.5	7/20/2016	Wilson	CALPOLY	Cal Poly Pier
M16P00507	mussels	< 2.5	7/25/2016	Friedman	SBMC	M-653-02
M16P00508	mussels	< 2.5	7/25/2016	Trevelyan	GBOC	M-614-01 P1
M16P00509	mussels	< 2.5	7/25/2016	Trevelyan	GBOC	M-614-02
M16P00510	mussels	< 2.5	7/25/2016	Graves-Bowin	MBOC	M-614-01 P2
M16P00512	mussels	< 2.5	7/20/2016	Pierre	UCSB	Goleta Pier
M16P00513	mussels	< 2.5	7/25/2016	Cooke	SMCEHD	Pillar Point
M16P00514	mussels	2.7	7/25/2016	Cooke	SMCEHD	Pescadero SB
M16P00515	mussels	2.9	7/25/2016	Laucci	SRR	Hunter Rock
M16P00517	mussels	< 2.5	7/26/2016	Pong	CSC	HB Indian Is
M16P00518	mussels	< 2.5	7/26/2016	Pong	CSC	HB USCG
M16D00125	razor clam meat	110	7/20/2016	Graves	DHSVOL	Crescent Beach
M16D00126	razor clam viscera	85	7/20/2016	Graves	DHSVOL	Crescent Beach
M16D00127	razor clam meat	200	7/20/2016	Graves	DHSVOL	Crescent Beach
M16D00128	razor clam viscera	170	7/20/2016	Graves	DHSVOL	Crescent Beach
M16D00129	razor clam meat	97	7/20/2016	Graves	DHSVOL	Crescent Beach
M16D00130	razor clam viscera	94	7/20/2016	Graves	DHSVOL	Crescent Beach
M16D00131	razor clam meat	170	7/20/2016	Graves	DHSVOL	Crescent Beach
M16D00132	razor clam viscera	150	7/20/2016	Graves	DHSVOL	Crescent Beach
M16D00133	razor clam meat	130	7/20/2016	Graves	DHSVOL	Crescent Beach
M16D00134	razor clam viscera	110	7/20/2016	Graves	DHSVOL	Crescent Beach
M16D00135	razor clam meat	230	7/20/2016	Graves	DHSVOL	Crescent Beach
M16D00136	razor clam viscera	170	7/20/2016	Graves	DHSVOL	Crescent Beach

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California's drought at
SaveOurWater.com

From: [Christen, Joe \(CDPH-DDWEM-EMB\)](#)
To: [Kennelly, Pat \(CDPH-FDB\)](#); [Klasing, Susan@OEHHA](#); [Ashcraft, Susan@FGC](#); [Kalvass, Peter@Wildlife](#)
Cc: [Trevena, Eric \(CDPH-DDWEM\)](#); [Yamada, Kelvin \(CDPH-DDWEM-EMB\)](#)
Subject: Razor Clam Update
Date: Tuesday, September 06, 2016 10:34:24 AM

Greetings –

My apologies for the delay in getting these results out.

Domoic acid concentrations ranged from 43 – 97 ppm with an average of 69 ppm in the razor clam meat samples collected on August 19 from Crescent City.

Domoic acid concentrations ranged from 34 to 190 ppm with an average of 121 ppm in the meat samples collected on August 19 from Clam Beach, Humboldt County.

Humboldt Bay mussel samples have been nondetect.

~ Joe

MDL	Species	Result	Coll_Date	Collector	Agency	Site
M16P00603	mussels	< 2.5	8/30/2016	Hobby	CSC	HB Indian Is
M16P00604	mussels	< 2.5	8/30/2016	Hobby	CSC	HB USCG Station
M16P00590	mussels	< 2.5	8/23/2016	Hobby	CSC	HB Indian Is
M16P00591	mussels	< 2.5	8/23/2016	Hobby	CSC	HB USCG Station
M16D00140	razor clam meat	160	8/19/2016	Ray	CDFW	Clam Beach
M16D00141	razor clam viscera	140	8/19/2016	Ray	CDFW	Clam Beach
M16D00142	razor clam meat	96	8/19/2016	Ray	CDFW	Clam Beach
M16D00143	razor clam viscera	81	8/19/2016	Ray	CDFW	Clam Beach
M16D00144	razor clam meat	160	8/19/2016	Ray	CDFW	Clam Beach
M16D00145	razor clam viscera	120	8/19/2016	Ray	CDFW	Clam Beach
M16D00146	razor clam meat	130	8/19/2016	Ray	CDFW	Clam Beach
M16D00147	razor clam viscera	69	8/19/2016	Ray	CDFW	Clam Beach
M16D00148	razor clam meat	80	8/19/2016	Ray	CDFW	Clam Beach
M16D00149	razor clam viscera	61	8/19/2016	Ray	CDFW	Clam Beach
M16D00150	razor clam meat	190	8/19/2016	Ray	CDFW	Clam Beach
M16D00151	razor clam viscera	130	8/19/2016	Ray	CDFW	Clam Beach
M16D00152	razor clam meat	34	8/19/2016	Ray	CDFW	Clam Beach
M16D00153	razor clam viscera	30	8/19/2016	Ray	CDFW	Clam Beach
M16D00154	razor clam meat	65	8/19/2016	Graves	DHSVOL08	Crescent Beach
M16D00155	razor clam viscera	61	8/19/2016	Graves	DHSVOL08	Crescent Beach
M16D00156	razor clam meat	43	8/19/2016	Graves	DHSVOL08	Crescent Beach
M16D00157	razor clam viscera	28	8/19/2016	Graves	DHSVOL08	Crescent Beach
M16D00158	razor clam meat	97	8/19/2016	Graves	DHSVOL08	Crescent Beach
M16D00159	razor clam viscera	97	8/19/2016	Graves	DHSVOL08	Crescent Beach
M16D00160	razor clam meat	67	8/19/2016	Graves	DHSVOL08	Crescent Beach
M16D00161	razor clam viscera	71	8/19/2016	Graves	DHSVOL08	Crescent Beach
M16D00162	razor clam meat	73	8/19/2016	Graves	DHSVOL08	Crescent Beach
M16D00163	razor clam viscera	67	8/19/2016	Graves	DHSVOL08	Crescent Beach

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