

## STAFF SUMMARY FOR APRIL 18-19, 2018

**12. RECREATIONAL PURPLE SEA URCHIN****Today's Item**Information Action 

Adopt emergency regulations concerning recreational take of purple sea urchin to support kelp recovery.

**Summary of Previous/Future Actions**

- MRC vetting Mar 6, 2018; MRC, Santa Rosa
- **Adoption hearing Apr 18-19, 2018; Ventura**

**Background**

Since 2014, FGC and DFW have been tracking a combination of environmental and biological stressors in nearshore waters across northern California, including extreme warm water, catastrophic algae blooms, an unprecedented increase in herbivorous purple sea urchin populations, and significant loss of bull kelp forests and other marine algae. DFW has identified that the large number of purple urchins is contributing to overgrazing of kelp, preventing kelp recovery and leading to red abalone starvation (Exhibit 1).

In Dec 2017, FGC received a petition for regulation change (Petition #2017-014) to remove the take restrictions on recreational purple urchin harvest, with a goal of supporting possible restoration of naturally occurring kelp along the environmentally impacted areas. At its Feb 2018 commission meeting, FGC granted the petition *in part* for consideration, and approved DFW's request to bring an emergency rulemaking proposal to the Apr 2018 meeting. Subsequently, at the Mar MRC meeting, DFW staff presented its proposal for an emergency regulation to temporarily increase the recreational harvest allowance for purple sea urchin, as part of broader collaborative efforts to support kelp bed restoration. A temporary increase in recreational harvest of purple sea urchin could also facilitate and mobilize citizen science through recreational harvest as part of the multi-pronged and coordinated approach toward kelp recovery on the north coast.

For today's action, DFW has provided a refined proposal to raise the daily limit for purple sea urchin from the current 35 individuals to 20 gallons per day, taken only while skin-diving or SCUBA diving and in state waters off Mendocino and Sonoma counties (exhibits 1 and 2).

FGC must consider the following factors in determining whether an emergency exists: The magnitude of potential harm, the existence of a crisis situation, the immediacy of the need, and whether the anticipation of harm has a basis firmer than simple speculation. All available information points to a highly volatile and adverse condition for northern California kelp forests and the resident abalone populations, and extraordinary measures must be taken immediately to help restore these important but vulnerable habitats.

**Significant Public Comments**

1. Representatives from Norcal Underwater Hunters and Waterman's Alliance support the proposal and invite FGC and DFW staff to an organized sea urchin removal event on the Sonoma coast over Memorial Day weekend (exhibits 4 and 5).

## STAFF SUMMARY FOR APRIL 18-19, 2018

2. An abalone diver recommends allowing more than 20 gallons per person per day, supports composting of urchins as a way to avoid “wanton waste,” and urges DFW to authorize restoration within marine protected areas soon (Exhibit 6).
3. An abalone diver encourages “heroic measures” be taken to save abalone and to enlist the commercial sea urchin fishing fleet to efficiently remove urchin and to compost the take (Exhibit 7).

### Recommendation

**FGC staff:** Adopt the proposed emergency action as recommended by DFW.

**MRC:** Adopt proposed emergency action as recommended by DFW.

**DFW:** Raise the daily bag limit for purple sea urchin, taken while skin-diving or SCUBA diving in state waters off Mendocino and Sonoma Counties, to 20 gallons, with no possession limit.

### Exhibits

1. [DFW memo, received Apr 5, 2018](#)
2. [Emergency statement to add Section 29.11](#)
3. [Economic and fiscal impact statement \(Std. 399\)](#)
4. [Email from Matt Mattison, received Mar 20, 2018](#)
5. [Email from Josh Russo, received Mar 20, 2018](#)
6. [Email from Bruce Watkins, received Mar 30, 2018](#)
7. [Email from Eric Wunsch, received Mar 07, 2018](#)
8. [DFW presentation](#)

### Motion/Direction

Moved by \_\_\_\_\_ and seconded by \_\_\_\_\_ that the Commission determines, pursuant to Section 11346.1 of the Government Code, that an emergency situation exists and finds the proposed regulation is necessary to address the emergency.

The Commission further determines, based on the record, pursuant to Section 15061(a) of Title 14, that the proposed action is exempt from the California Environmental Quality Act as an action necessary to prevent or mitigate an emergency as specified in Public Resources Code Section 21080(b)(4).

The Commission further determines, pursuant to Section 399 of the Fish and Game Code, that adopting this regulation is necessary for the immediate conservation, preservation, or protection of birds, mammals, fish, amphibians or reptiles.

Therefore, the Commission adopts the emergency regulation to add Section 29.11.

## Memorandum

2018 APR -5 AM 9:04

Date: April 3, 2018

To: Valerie Termini  
Executive Director  
Fish and Game Commission



From: Charlton H. Bonham  
Director

Subject: **Agenda Item for the April 2018, Fish and Game Commission Meeting  
Re: Request Adoption of Sea Urchin Recreational Bag Limit Emergency  
Regulations.**

On December 7, 2017, the Fish and Game Commission (Commission) took action to close the red abalone recreational fishery due to the extremely poor state of the kelp forests in northern California and the resident abalone population. The kelp forests have yet to recover in large part due to overgrazing by sea urchins, particularly purple sea urchins. The problem of sea urchin overgrazing is further exacerbated by the loss of sea stars, an important predator of sea urchin, from the recent sea star wasting disease epidemic. Recovery of the abalone fishery will not be possible without the prompt recovery of the bull kelp forests and the return of sufficient food to support abalone survival and reproduction.

In December 2017, the Commission received a petition (#2017-014) for regulation change to consider removing the take restrictions on recreational purple urchin harvest, with a goal of supporting possible restoration of naturally occurring kelp along the environmentally impacted areas. In February 2018, the Commission granted the petition in part for consideration, and approved the Departments request to bring a draft proposal to the Commission during its April 2018 meeting for possible emergency rulemaking.

Therefore, the Department requests that the Commission take emergency action at its April 2018 meeting to adopt the emergency regulation to raise the recreational daily bag limit for purple sea urchin taken while skin-diving or SCUBA diving in Mendocino County and Sonoma County to 20 gallons per person per day.

If you have any questions or need additional information, please contact Dr. Craig Shuman, Marine Regional Manager at (916) 445-6459.

ec: Stafford Lehr, Deputy Director  
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Valerie Termini, Executive Director  
Fish and Game Commission  
April 3, 2018  
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CALIFORNIA FISH AND GAME COMMISSION  
FINDING OF EMERGENCY AND  
STATEMENT OF PROPOSED EMERGENCY REGULATORY ACTION

Emergency Action to  
Add Section 29.11,  
Title 14, California Code of Regulations  
Re: Emergency Regulation to Raise Recreational Purple Sea Urchin Daily Bag Limit

Date of Statement: April 3, 2018

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

The recreational red abalone (*Haliotis rufescens*) fishery is one of California's most important fisheries, generating millions of dollars in tourism revenue for the northern California coast. Normally, red abalone may be taken with a sport fishing license subject to regulations prescribed by the Fish and Game Commission (Commission). However, severe environmental conditions over the past several years have triggered a cascade of ecological changes that greatly impacted abalone populations and led to closure of the fishery.

The combination of unprecedented environmental and biological stressors has caused the bull kelp forest, the primary source of food for abalone, to collapse. Today, the once abundant kelp is only 10% of its historical coverage along the coasts of Sonoma and Mendocino counties. The loss of the kelp forest has led to widespread starvation of abalone. In 2016 and 2017, more than 25 percent of the abalones assessed (greater than 6,000 abalone per year) in the nine creel surveys at key fished sites in Sonoma and Mendocino counties had shrunken foot muscles due to starvation. Starved abalones have an increased chance of mortality and severely reduced reproduction further limiting their recovery.

Additionally, the kelp forest recovery is severely hindered due to the increased abundance of purple sea urchin (*Strongylocentrotus purpuratus*). Unlike abalone, sea urchins are generally resilient to food shortage and can survive longer without food, and grazing pressure from surviving sea urchins may prevent kelp recovery even as ocean conditions rebound. The urchin population boom is further exacerbated by the absence of important predatory sea stars (*Pisaster spp.*), which were severely impacted by the sudden onset of the sea star wasting disease in 2013. With the sea star population still recovering from the epidemic, there will be little top-down control on the urchin population in northern California in the immediate future.

**Habitat loss critically impacting red abalone has been documented along the north coast by California Department of Fish and Wildlife (Department) staff:**

1. A dramatic decline in sea stars, important sea urchin predators, due to sea star disease 2013-2015.
2. A dramatic decline (greater than 93 percent) of the kelp canopy in Sonoma and Mendocino counties in 2014.
3. A dramatic increase (greater than 60 times) in the density of purple sea urchins since 2014, increasing competition with abalone for food.
4. Persistent warm seawater conditions in Sonoma and Mendocino counties, particularly in 2014 and 2015.
5. Continued decline in overall average abalone densities in spite of significant take reductions implemented in 2014, ultimately leading to closure of the 2018 fishing season.

**Health and reproductive loss critically impacting red abalone has been documented along the north coast by Department staff:**

1. Visual abalone body health scores for abalone taken in the fishery during the spring of 2016 and 2017 show that more than 25 percent of abalone were shrunken in body mass at sites in northern California.
2. Reproductive condition index declined by greater than 50 percent at Van Damme State Park and Fort Ross in 2017, with increasing impact to reproduction evident in shrunken abalone (60 abalone per site).
3. Department staff and abalone fishers have observed weak abalone washed up on shore and easy to remove from the rocks as well as many new shells of all size classes, indicating increased natural mortality.
4. Low numbers of larval abalone observed in plankton surveys in Sonoma and Mendocino counties in 2015.
5. Small numbers of newly settled abalone observed in coralline-covered rock samples from Sonoma and Mendocino counties in 2015.
6. Few juvenile (less than 21 millimeters) red abalone observed in artificial reefs in Van Damme State Park in 2015.

**Prior Commission Action**

In December 2017, the Commission closed the red abalone fishery for the 2018 season. Since then, the poor condition of the kelp forests has continued to persist. Recovery of the abalone fishery will not be possible without the prompt recovery of the bull kelp forests and the return of sufficient food to support abalone survival and reproduction.

Also in December 2017, the Commission considered alternatives to increasing or removing the take restrictions on the recreational purple sea urchin harvest, with the goal of supporting possible restoration of naturally occurring kelp along the environmentally impacted areas. In February 2018, the Commission approved the Department's request to bring an emergency rulemaking proposal to significantly increase take of purple sea urchin to the Commission at its April 2018 meeting.

### **Existence of an Emergency and Need for Immediate Action**

The Commission considered the following factors in determining whether an emergency exists: The magnitude of potential harm; the existence of a crisis situation; the immediacy of the need; and whether the anticipation of harm has a basis firmer than simple speculation. All available information points to a highly volatile and adverse condition for northern California kelp forests and the resident abalone populations, and extraordinary measures must be taken immediately to help restore important but vulnerable habitats.

### **Proposed Action by the Commission**

Interest among Californians to take sea urchins recreationally to assist with recovery has been rising in recent years. This interest is not currently being met in northern California due to the thirty-five (35) sea urchins per-person daily bag limit (14 CCR § 29.05(a)). The current bag limit is simply not high enough to affect the purple sea urchin population or to induce divers to take purple sea urchins for restoration purposes. Accordingly, the Department of Fish and Wildlife (Department) proposes that the recreational daily bag limit for purple sea urchins taken by divers in Sonoma and Mendocino counties be increased to twenty (20) gallons temporarily.

Due to the uncertainties associated with grazer population control, the scope of the proposed action is limited to only Sonoma and Mendocino counties. These areas were the hardest hit by the unprecedented kelp loss and constitute the core region of the red abalone fishery and the historic bull kelp forest. Furthermore, the higher daily bag limit would only apply to divers, whether they are skin-diving or using SCUBA. This stipulation would prevent increased disturbance to fragile intertidal habitats, where most species are susceptible to being trampled on. In addition, there are relatively few purple urchins located in the intertidal zone.

Twenty gallons is set as a high but realistic upper limit to ensure that divers would not take more urchins than what they could utilize properly. The amount is also low enough to deter hiding poached abalones within large volumes of sea urchins. Setting the limit at a multiples of 5 gallons also allows fishers and enforcement officers to check for compliance using ubiquitous household 5-gallon buckets, though the bucket is not required gear as long as the maximum

volume is not exceeded. The Department recommends that there be no limit on the possession of purple sea urchins to allow for better utilization and easier transportation once the urchins are brought ashore.

Raising the daily bag limit is intended as an emergency solution to an ongoing and volatile environmental condition. Department staff is currently establishing a collaborative framework with government, non-profit, academic, industry and other stakeholder partners to track the effect of the proposed emergency regulation. The results obtained will serve to inform future decision-making on kelp forest management.

## **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**

Authority cited: Sections 200, 205 and 399, Fish and Game Code.

Reference: Sections 200, 205 and 399, Fish and Game Code.

## **IV. Section 399 Finding**

Pursuant to Section 399 of the Fish and Game Code, the Commission finds that the adoption of this regulation is necessary for the immediate conservation, preservation, or protection of red abalone.

## Informative Digest (Policy Statement Overview)

Current regulations provide for a daily bag and possession limit of 35 purple sea urchin [(subsection 29.05(a), Title 14, California Code of Regulations (CCR)]. The Department of Fish and Wildlife (Department) proposes to temporarily raise the daily bag limit for purple sea urchins taken while skin-diving or SCUBA diving in Sonoma and Mendocino counties to twenty (20) gallons. Section 29.11, Title 14, CCR, is proposed to be added as an emergency regulation specifying the level of take. The much higher limits are necessary to catalyze existing recreational diving interest in purple sea urchin, and make a substantial contribution to restoring kelp forests and abalone in northern California. The proposal would also allow unlimited possession of recreationally taken purple sea urchin.

Abnormal weather conditions since 2014 have caused a greater than 93 percent decline in kelp coverage in the abalone habitats in Sonoma and Mendocino counties. The loss of kelp has led to a starvation-induced decline of the red abalone population, health, and reproduction. Purple sea urchin overpopulation is preventing healthy kelp regrowth in most areas.

The grazing pressure from purple sea urchin needs to be severely curtailed before the kelp can recover. In recent years there has been a growing interest in recreational diving for purple sea urchin, however, the current bag and possession limit is too low to meaningfully reduce the purple sea urchin population and does nothing to contribute to kelp and abalone recovery efforts.

The proposed emergency regulation will significantly reduce the purple sea urchin population, thus benefiting the northern California kelp forest ecosystem and the recovery of red abalone. Department staff will closely monitor the effect of the higher limit with local partner organizations to inform long-term kelp forest management.

To determine whether an emergency exists, the Department considered the following factors: The magnitude of potential harm; the existence of a crisis situation; the immediacy of the need; and whether the anticipation of harm has a basis firmer than simple speculation. Department field surveys demonstrate that all these factors have been met.

### Benefits of the Regulation to the State's Environment:

The Commission anticipates benefits to the State's environment by the sustainable management of California's ocean resources. The increased take for the recreational purple sea urchin harvest, with the goal of supporting restoration of naturally occurring kelp along the environmentally impacted areas, is critical to the recovery of the red abalone.

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

## **Emergency Regulatory Language**

Section 29.11, Title 14, CCR, is added as follows:

### **§ 29.11. Purple Sea Urchin**

(a) The daily bag limit for purple sea urchin taken while skin or SCUBA diving in state waters off Mendocino and Sonoma Counties is twenty (20) gallons.

(b) There is no possession limit for purple sea urchin.

Authority cited: Sections 200, 205 and 399, Fish and Game Code.

Reference: Sections 200, 205 and 399, Fish and Game Code.

DRAFT

**ECONOMIC AND FISCAL IMPACT STATEMENT  
(REGULATIONS AND ORDERS)**

STD. 399 (REV. 12/2013)

**ECONOMIC IMPACT STATEMENT**

DEPARTMENT NAME Fish and Game Commission	CONTACT PERSON Margaret Duncan    margaret.duncan	EMAIL ADDRESS @wildlife.ca.gov	TELEPHONE NUMBER 916-653-4676
DESCRIPTIVE TITLE FROM NOTICE REGISTER OR FORM 400 Add Section 29.11, Re: Emergency Regulation to Raise Recreational Purple Sea Urchin Daily Bag Limit			NOTICE FILE NUMBER Z

**A. ESTIMATED PRIVATE SECTOR COST IMPACTS** *Include calculations and assumptions in the rulemaking record.*

1. Check the appropriate box(es) below to indicate whether this regulation:

- |  |   |
|--|---|
| <input type="checkbox"/> a. Impacts business and/or employees  | <input type="checkbox"/> e. Imposes reporting requirements                |
| <input type="checkbox"/> b. Impacts small businesses           | <input type="checkbox"/> f. Imposes prescriptive instead of performance   |
| <input type="checkbox"/> c. Impacts jobs or occupations        | <input type="checkbox"/> g. Impacts individuals                           |
| <input type="checkbox"/> d. Impacts California competitiveness | <input checked="" type="checkbox"/> h. None of the above (Explain below): |

Emergency regulation to raise recreational purple sea urchin harvest limits

***If any box in Items 1 a through g is checked, complete this Economic Impact Statement.  
If box in Item 1.h. is checked, complete the Fiscal Impact Statement as appropriate.***

2. The \_\_\_\_\_ estimates that the economic impact of this regulation (which includes the fiscal impact) is:  
(Agency/Department)

- Below \$10 million
- Between \$10 and \$25 million
- Between \$25 and \$50 million
- Over \$50 million *[If the economic impact is over \$50 million, agencies are required to submit a Standardized Regulatory Impact Assessment as specified in Government Code Section 11346.3(c)]*

3. Enter the total number of businesses impacted: \_\_\_\_\_

Describe the types of businesses (Include nonprofits): \_\_\_\_\_

Enter the number or percentage of total businesses impacted that are small businesses: \_\_\_\_\_

4. Enter the number of businesses that will be created: \_\_\_\_\_ eliminated: \_\_\_\_\_

Explain: \_\_\_\_\_

5. Indicate the geographic extent of impacts:  Statewide  
 Local or regional (List areas): \_\_\_\_\_

6. Enter the number of jobs created: \_\_\_\_\_ and eliminated: \_\_\_\_\_

Describe the types of jobs or occupations impacted: \_\_\_\_\_

7. Will the regulation affect the ability of California businesses to compete with other states by making it more costly to produce goods or services here?  YES  NO

If YES, explain briefly: \_\_\_\_\_

**ECONOMIC AND FISCAL IMPACT STATEMENT  
(REGULATIONS AND ORDERS)**

STD. 399 (REV. 12/2013)

**ECONOMIC IMPACT STATEMENT (CONTINUED)**

**B. ESTIMATED COSTS** *Include calculations and assumptions in the rulemaking record.*

- 1. What are the total statewide dollar costs that businesses and individuals may incur to comply with this regulation over its lifetime? \$ \_\_\_\_\_
  - a. Initial costs for a small business: \$ \_\_\_\_\_ Annual ongoing costs: \$ \_\_\_\_\_ Years: \_\_\_\_\_
  - b. Initial costs for a typical business: \$ \_\_\_\_\_ Annual ongoing costs: \$ \_\_\_\_\_ Years: \_\_\_\_\_
  - c. Initial costs for an individual: \$ \_\_\_\_\_ Annual ongoing costs: \$ \_\_\_\_\_ Years: \_\_\_\_\_
  - d. Describe other economic costs that may occur: \_\_\_\_\_

2. If multiple industries are impacted, enter the share of total costs for each industry: \_\_\_\_\_

3. If the regulation imposes reporting requirements, enter the annual costs a typical business may incur to comply with these requirements. *Include the dollar costs to do programming, record keeping, reporting, and other paperwork, whether or not the paperwork must be submitted.* \$ \_\_\_\_\_

- 4. Will this regulation directly impact housing costs?  YES  NO  
 If YES, enter the annual dollar cost per housing unit: \$ \_\_\_\_\_  
 Number of units: \_\_\_\_\_

- 5. Are there comparable Federal regulations?  YES  NO  
 Explain the need for State regulation given the existence or absence of Federal regulations: \_\_\_\_\_  
 Enter any additional costs to businesses and/or individuals that may be due to State - Federal differences: \$ \_\_\_\_\_

**C. ESTIMATED BENEFITS** *Estimation of the dollar value of benefits is not specifically required by rulemaking law, but encouraged.*

1. Briefly summarize the benefits of the regulation, which may include among others, the health and welfare of California residents, worker safety and the State's environment: \_\_\_\_\_

- 2. Are the benefits the result of:  specific statutory requirements, or  goals developed by the agency based on broad statutory authority?  
 Explain: \_\_\_\_\_

3. What are the total statewide benefits from this regulation over its lifetime? \$ \_\_\_\_\_

4. Briefly describe any expansion of businesses currently doing business within the State of California that would result from this regulation: \_\_\_\_\_

**D. ALTERNATIVES TO THE REGULATION** *Include calculations and assumptions in the rulemaking record. Estimation of the dollar value of benefits is not specifically required by rulemaking law, but encouraged.*

1. List alternatives considered and describe them below. If no alternatives were considered, explain why not: \_\_\_\_\_

**ECONOMIC AND FISCAL IMPACT STATEMENT  
(REGULATIONS AND ORDERS)**

STD. 399 (REV. 12/2013)

**ECONOMIC IMPACT STATEMENT (CONTINUED)**

2. Summarize the total statewide costs and benefits from this regulation and each alternative considered:

Regulation: Benefit: \$ \_\_\_\_\_ Cost: \$ \_\_\_\_\_

Alternative 1: Benefit: \$ \_\_\_\_\_ Cost: \$ \_\_\_\_\_

Alternative 2: Benefit: \$ \_\_\_\_\_ Cost: \$ \_\_\_\_\_

3. Briefly discuss any quantification issues that are relevant to a comparison of estimated costs and benefits for this regulation or alternatives: \_\_\_\_\_

4. Rulemaking law requires agencies to consider performance standards as an alternative, if a regulation mandates the use of specific technologies or equipment, or prescribes specific actions or procedures. Were performance standards considered to lower compliance costs?  YES  NO

Explain: \_\_\_\_\_

**E. MAJOR REGULATIONS** *Include calculations and assumptions in the rulemaking record.*

***California Environmental Protection Agency (Cal/EPA) boards, offices and departments are required to submit the following (per Health and Safety Code section 57005). Otherwise, skip to E4.***

1. Will the estimated costs of this regulation to California business enterprises exceed \$10 million?  YES  NO

*If YES, complete E2. and E3  
If NO, skip to E4*

2. Briefly describe each alternative, or combination of alternatives, for which a cost-effectiveness analysis was performed:

Alternative 1: \_\_\_\_\_

Alternative 2: \_\_\_\_\_

*(Attach additional pages for other alternatives)*

3. For the regulation, and each alternative just described, enter the estimated total cost and overall cost-effectiveness ratio:

Regulation: Total Cost \$ \_\_\_\_\_ Cost-effectiveness ratio: \$ \_\_\_\_\_

Alternative 1: Total Cost \$ \_\_\_\_\_ Cost-effectiveness ratio: \$ \_\_\_\_\_

Alternative 2: Total Cost \$ \_\_\_\_\_ Cost-effectiveness ratio: \$ \_\_\_\_\_

4. Will the regulation subject to OAL review have an estimated economic impact to business enterprises and individuals located in or doing business in California exceeding \$50 million in any 12-month period between the date the major regulation is estimated to be filed with the Secretary of State through 12 months after the major regulation is estimated to be fully implemented?

YES  NO

*If YES, agencies are required to submit a Standardized Regulatory Impact Assessment (SRIA) as specified in Government Code Section 11346.3(c) and to include the SRIA in the Initial Statement of Reasons.*

5. Briefly describe the following:

The increase or decrease of investment in the State: \_\_\_\_\_

The incentive for innovation in products, materials or processes: \_\_\_\_\_

The benefits of the regulations, including, but not limited to, benefits to the health, safety, and welfare of California residents, worker safety, and the state's environment and quality of life, among any other benefits identified by the agency: \_\_\_\_\_

**ECONOMIC AND FISCAL IMPACT STATEMENT  
(REGULATIONS AND ORDERS)**

STD. 399 (REV. 12/2013)

SAM Section 6601-6616

**FISCAL IMPACT STATEMENT**

**A. FISCAL EFFECT ON LOCAL GOVERNMENT** *Indicate appropriate boxes 1 through 6 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*

1. Additional expenditures in the current State Fiscal Year which are reimbursable by the State. (Approximate)  
(Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

\$ \_\_\_\_\_

a. Funding provided in \_\_\_\_\_  
Budget Act of \_\_\_\_\_ or Chapter \_\_\_\_\_, Statutes of \_\_\_\_\_

b. Funding will be requested in the Governor's Budget Act of \_\_\_\_\_  
Fiscal Year: \_\_\_\_\_

2. Additional expenditures in the current State Fiscal Year which are NOT reimbursable by the State. (Approximate)  
(Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

\$ \_\_\_\_\_

*Check reason(s) this regulation is not reimbursable and provide the appropriate information:*

a. Implements the Federal mandate contained in \_\_\_\_\_

b. Implements the court mandate set forth by the \_\_\_\_\_ Court.  
Case of: \_\_\_\_\_ vs. \_\_\_\_\_

c. Implements a mandate of the people of this State expressed in their approval of Proposition No. \_\_\_\_\_  
Date of Election: \_\_\_\_\_

d. Issued only in response to a specific request from affected local entity(s).  
Local entity(s) affected: \_\_\_\_\_

e. Will be fully financed from the fees, revenue, etc. from: \_\_\_\_\_  
Authorized by Section: \_\_\_\_\_ of the \_\_\_\_\_ Code;

f. Provides for savings to each affected unit of local government which will, at a minimum, offset any additional costs to each;

g. Creates, eliminates, or changes the penalty for a new crime or infraction contained in \_\_\_\_\_

3. Annual Savings. (approximate)

\$ \_\_\_\_\_

4. No additional costs or savings. This regulation makes only technical, non-substantive or clarifying changes to current law regulations

5. No fiscal impact exists. This regulation does not affect any local entity or program.

6. Other. Explain \_\_\_\_\_  
\_\_\_\_\_

**ECONOMIC AND FISCAL IMPACT STATEMENT  
(REGULATIONS AND ORDERS)**

STD. 399 (REV. 12/2013)

**FISCAL IMPACT STATEMENT (CONTINUED)**

**B. FISCAL EFFECT ON STATE GOVERNMENT** *Indicate appropriate boxes 1 through 4 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*

1. Additional expenditures in the current State Fiscal Year, (Approximate)

\$ \_\_\_\_\_

*It is anticipated that State agencies will:*

a. Absorb these additional costs within their existing budgets and resources.

b. Increase the currently authorized budget level for the \_\_\_\_\_ Fiscal Year

2. Savings in the current State Fiscal Year. (Approximate)

\$ \_\_\_\_\_

3. No fiscal impact exists. This regulation does not affect any State agency or program.

4. Other. Explain \_\_\_\_\_

**C. FISCAL EFFECT ON FEDERAL FUNDING OF STATE PROGRAMS** *Indicate appropriate boxes 1 through 4 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*

1. Additional expenditures in the current State Fiscal Year. (Approximate)

\$ \_\_\_\_\_

2. Savings in the current State Fiscal Year. (Approximate)

\$ \_\_\_\_\_

3. No fiscal impact exists. This regulation does not affect any federally funded State agency or program.

4. Other. Explain \_\_\_\_\_

FISCAL OFFICER SIGNATURE

DATE

4/3/18

*The signature attests that the agency has completed the STD. 399 according to the instructions in SAM sections 6601-6616, and understands the impacts of the proposed rulemaking. State boards, offices, or departments not under an Agency Secretary must have the form signed by the highest ranking official in the organization.*

AGENCY SECRETARY

DATE

*Finance approval and signature is required when SAM sections 6601-6616 require completion of Fiscal Impact Statement in the STD. 399.*

DEPARTMENT OF FINANCE PROGRAM BUDGET MANAGER

DATE

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**From:** matt mattison  
**Sent:** Tuesday, March 20, 2018 12:51 PM  
**To:** FGC; Mastrup, Sonke@Wildlife; Shuman, Craig@Wildlife;  
**Subject:** North coast purple urchin removal

Hello all,,

I am writing this letter with concern as a ocean lover and user and coastal resident regarding purple sea urchin population and how it is killing our coastline and fisheries and starving out the abalone. We ask you to work with the recreational divers to work together and cooperate with department on the current situation we have on the north coast with the purple sea urchins and how they are destroying the ecosystem, not just abalone but the whole food web and ecosystem. Time and time again it seems as if fish and Wildlife and especially Dr Cynitha Catton in the department keep putting up these stop signs and road blocks and basically dragging her feet regarding recreational divers help with removing the purple urchin and fast tracking any actions to help this cause. We have tried countless times to get the department to lift and or raise limits on the purple urchins and or take some sort of emergency action which they can do if they want. If the purple sea urchins are not put in check and balance the ocean and abalone and rock fish may never rebound!!!! That is our concern as divers and ocean lovers. I am writing this letter for myself and the 1300 + members that I represent from NORcal Underwater Hunters.

On May 26 & 27, 28 memorial weekend myself and friend Josh Russo will be Scheduling the first official recreational purple urchin removal event and 2018 Norcal Underwater Hunters Meet & Greet camp out at Ocean cove campground. At this time we will be removing what ever the regulations will let us hopefully by then limits will be removed ideally. We expect to have a couple hundred divers and volunteers at this event. We encourage you to attend and get involved. We really hope to hear your thoughts and ideally your involvement and team work on this issue. Once again we invite you to join us for this great event and really hope to hear your response and input on the important matter to the north coast and the people who live near the north coast and or just love it. I will let you all know if I get any response

***Founder / Owner of Norcal Underwater Hunters Dive forum over 1300 + members***  
***Team Gannet***  
***Team Reliable fishing products***  
***Team HECS***  
***Team Sportube***  
***Team SharkShield***



A dark grey banner for HECS. On the left is the HECS logo, a yellow hexagon with a black "X" inside, followed by the text "HECS" in white. To the right of the logo is contact information: "WARDEN OFFICE", "60001 W. 4th, Apt 1077", "PO, Portland, OR 97201", "TEL: 503.251.1000", "WWW.HECSQUATC.COM", "HECS@ATC.COM". On the far right is a small image of a diver underwater with the HECS logo overlaid.

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**From:** Joshua Russo  
**Sent:** Tuesday, March 20, 2018 1:27 PM  
**To:** FGC; Mastrup, Sonke@Wildlife; Shuman, Craig@Wildlife  
**Subject:** Re: North coast purple urchin removal

I am organizing the event on Memorial weekend and have invited Matt's group NCUH and several other clubs, shops etc. What I've asked these clubs and shops to do is schedule their regular monthly events at that location on those dates so all the divers would be in the same place. Besides Matt's group we have at least four other dive clubs coming, and 7 shops at this time. We have a tremendous response and are expecting a large number of volunteers and I think it would be good to have the department and the commission represented at the event.

Thank you,  
Josh

On Tuesday, March 20, 2018 12:51 PM, matt mattison

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Email:

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***Team SharkShield***



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**From:** Bruce E Watkins  
**Sent:** Friday, March 30, 2018 3:49 PM  
**To:** FGC  
**Subject:** Support for Agenda Item 12-April 18 meeting

Dear Commissioners,

I will not be able to attend your April 18th meeting, but would like to comment on Agenda Item 12.

I support the proposal to increase the recreational bag limit of purple sea urchins to support kelp recovery.

The California Department of Fish and Wildlife's staff has done an excellent job documenting the situation, and it is good that the Commission is considering acting to address the urchin problem.

However, I believe more should be done. First, while this rule change will benefit some reefs in Sonoma and Mendocino Counties, the limit should be increased further. 20 gallons per day per diver is too small to make a real difference unless vast numbers of divers are engaged in the effort.

Secondly, please explicitly address the issue of "wanton waste." It is clear that purple urchins have little food value, especially urchins in barrens. The best use of these urchins is as compost. Please confirm that composting urchins is not wasting them, as defined in Section 1.87 of Title 14.

Also, I am disappointed that Marine Protected Areas have been left out of this rule change. After all, they are recognized as areas requiring special protection. Let's protect them from urchins as well, although this might be more easily accomplished under a Scientific Collecting Permit. I encourage the Commission to work with the Department of Fish and Wildlife to efficiently process these permits, and to acknowledge that they are intended to support kelp recovery, and not be viewed exclusively as a science project.

Working together we can make a difference to maintain "spore banks" and "islands of diversity" that can expand when the sea condition improves.

Thank you for your time and consideration.

Sincerely;

Bruce Watkins

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**From:** Eric Wunsch  
**Sent:** Wednesday, March 07, 2018 8:08 AM  
**To:** FGC  
**Subject:** Purple Urchin/Kelp/Abalone

Gentlepersons,

I write this email out of concern for the declining north coast red abalone population. I am a sport abalone diver with nearly 40 seasons under my belt. I would like our children, and future generations to be able to continue on in the abalone tradition. A tradition that has supported vital north coast tourism over many decades.

I implore the commissioners to take heroic measures to save this culturally, and economically important resource. My suggestion, and this seems to be an idea with some rising popularity, among the coastal Native American tribes, and sport divers alike, is a bounty system of sorts.

It is my understanding that there remains a small portion of a once thriving commercial urchin fleet. Why not enlist the urchin fleet's help to reduce the purple urchin population? It is my understanding that the purple urchin has little marketable uni egg value. I would suggest the commission allow for a per pound incentive for the purple urchin to be taken, processed for eggs, and the remains to be incorporated into fertilizer. The incentive might also be in the form a state income tax, or commercial license fee break.

The north coast counties have both soil blending, and organic fertilizer manufacturing facilities. The urchin remains are high in nitrogen, and both macro and micro nutrients, and would be of significant value to the area cannabis/organic farming operations.

Another possible approach would be to list the purple urchin as a "varmint" of sorts, and to allow sport divers to cull the excessive populations, under state biologist management.

Regardless of the approach, the Commission must take measures to save the kelp forests, and thus food and habitat for hundreds of nearshore, and intertidal species-including the red abalone. Please act before it is too late.

Thank you,

**Eric Wunsch, D.C.**

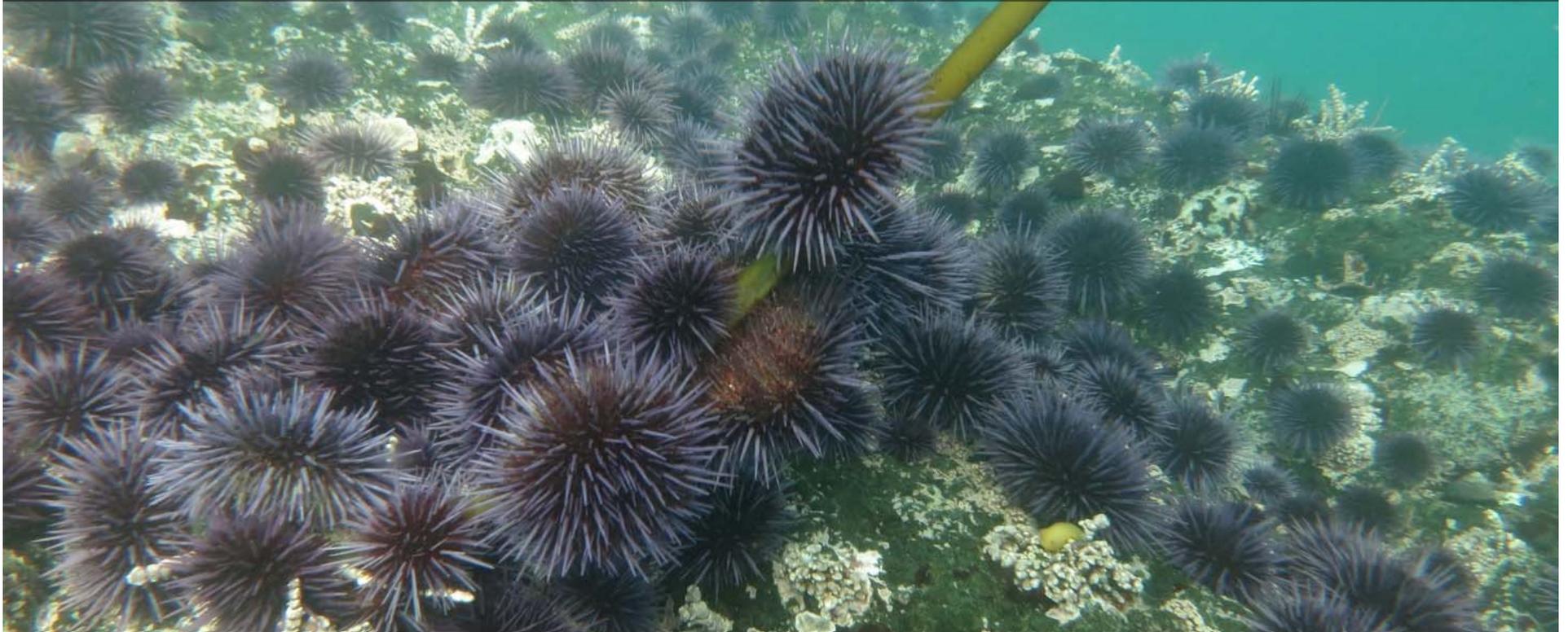
**Wunsch Chiropractic Clinic**

**Willows, CA 95988**

**Wunsch Chiropractic Clinic**

**Orland, CA 95963**

# Recommendations for Increased Recreational Purple Urchin Harvest



Dr. Cynthia Catton  
California Fish and Game Commission Meeting  
April 18, 2018

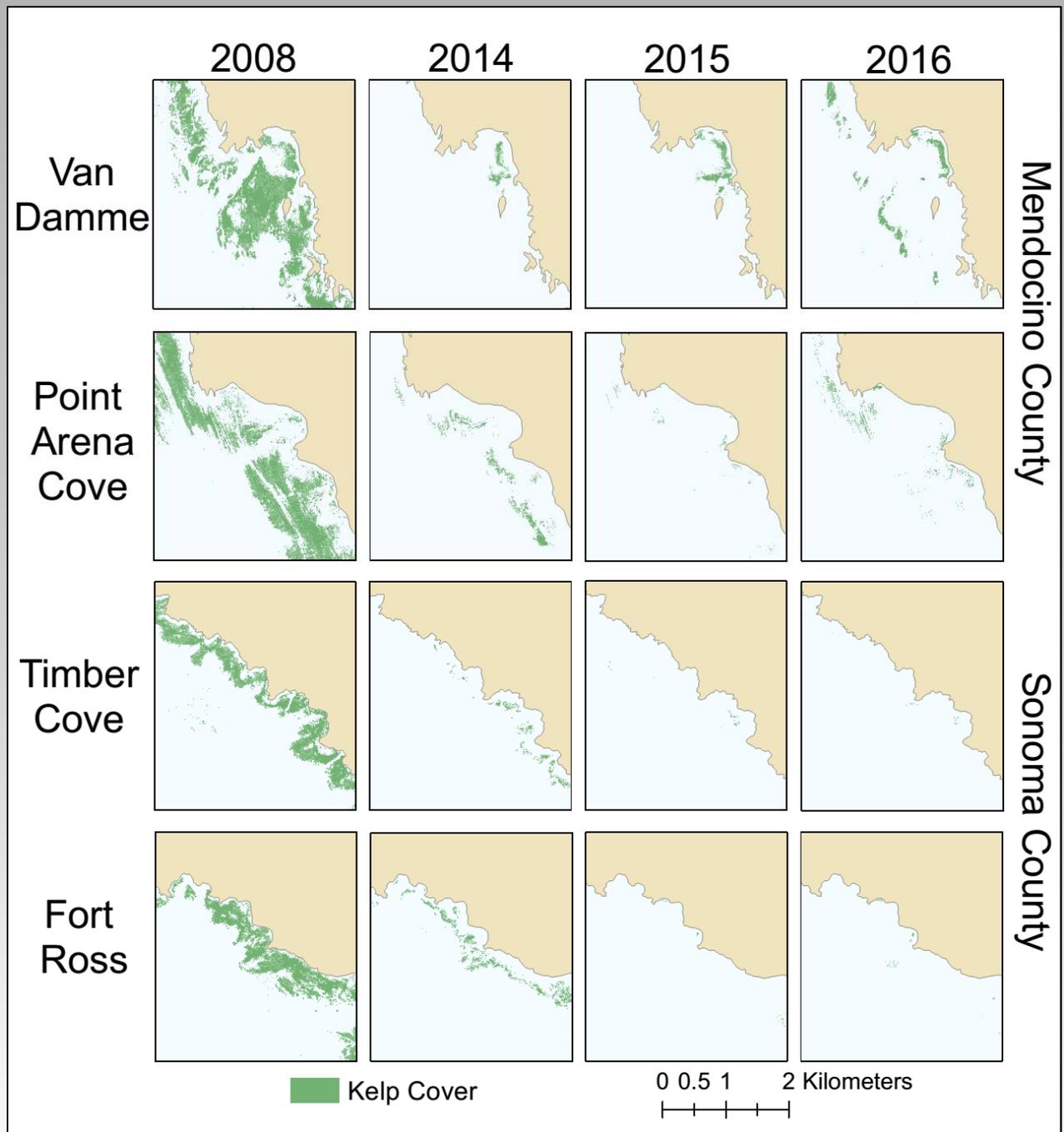
K. Joe

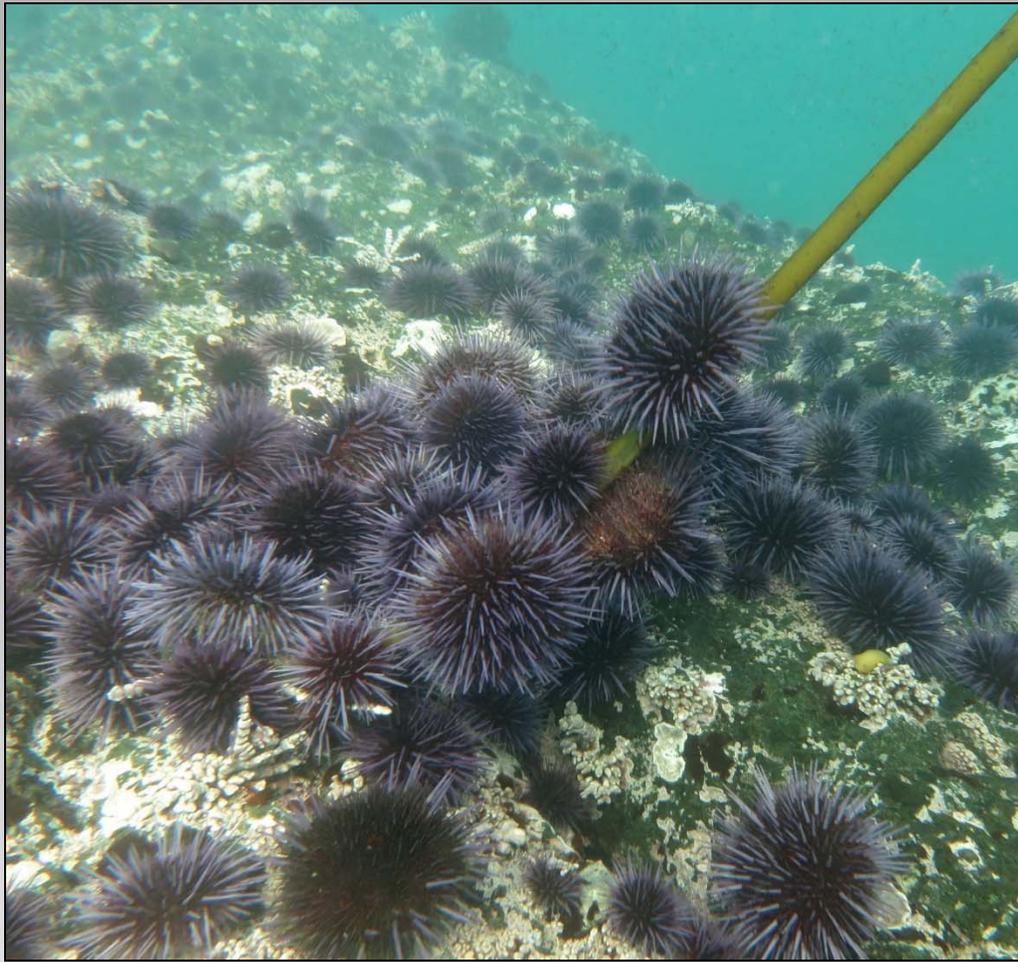
# Aerial Kelp Surveys (CDFW)

**93% kelp loss in 2014**

**Additional 33% loss in 2015**

**Limited kelp growth in 2016 and 2017**



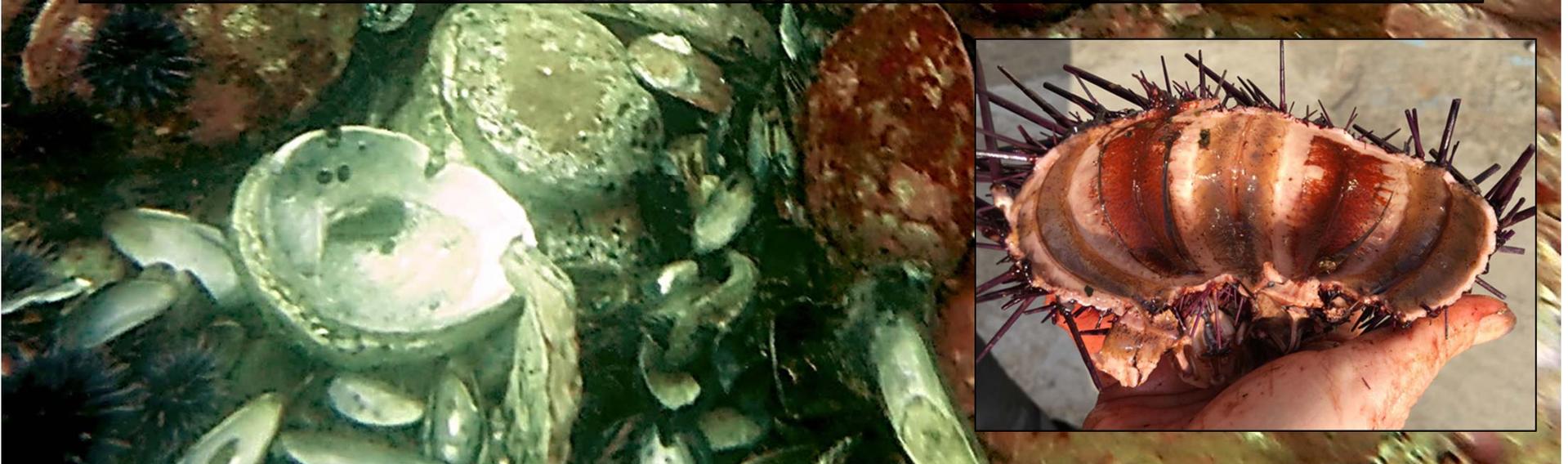


Urchins overgrazing  
Bull Kelp at the holdfast



# Impacts to Fisheries

- Red abalone fishery closure 2018
- Red urchin fishery
  - 80% decline in catch
  - Requested federal disaster relief

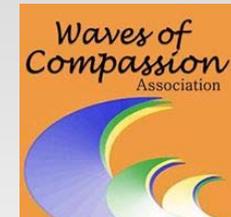
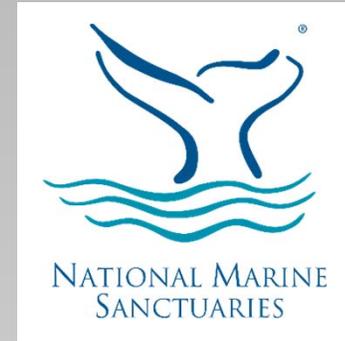


# Kelp Ecosystem & Landscape Partnership for Research on Resilience



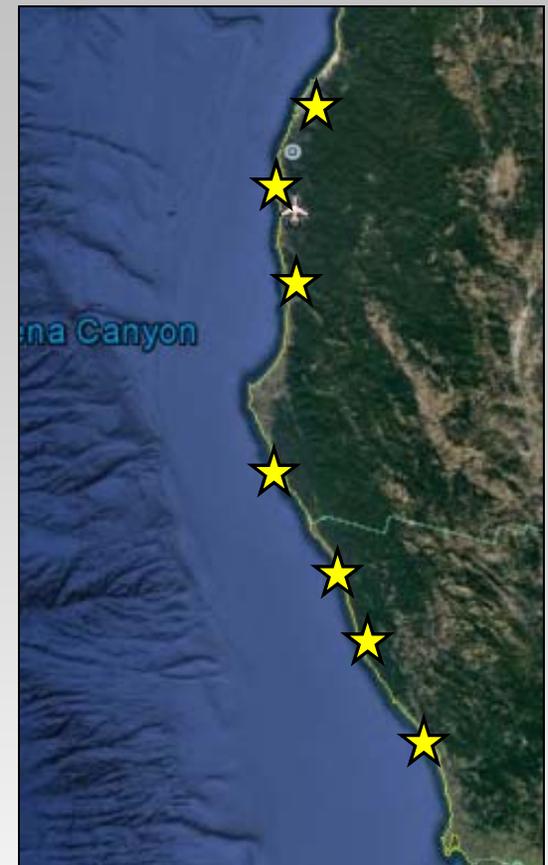
- Broad partnership of stakeholders, scientists, and government agencies
- Focus on bull kelp forest ecosystem
  - Fill critical knowledge gaps
  - Assess recovery potential
  - Support rapid widespread kelp recovery by maintaining spore production along the coast
- Support commercial markets for purple urchins

# KELPRR Partnership



# Protect the Spore Bank through purple urchin control

- Maintain connectivity between sites through spore dispersal
- Benefit fisheries by enhancing localized food and habitat availability
- Protect culturally significant areas for local tribal nations
- Revitalize local soils with urchin materials



# Collaborative Coordinated Purple Urchin Removals

- Commercial urchin diver efforts now
- Citizen Science opportunities
- Future citizen diver opportunities



E. Wirschafter (KQED)



# Emergency Regulation Recommendation

- Current regulations allow 35 purple urchins
- *Recommend increasing to 20 gallons/day, no possession limit*
  - Significant individual effort per day
  - Manageable amount for recreational consumptive use
  - Minimize opportunity for abalone poaching

# Targeted Recreational Harvest

- Sonoma and Mendocino counties
- Subtidal harvest only



# Opportunity to Coordinate Efforts



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Forum

Observations

Map

Locations



## Legend

Project Headquarters

Single Observation

Many Observations

Search by Location Name:

Example: Site 1

Search

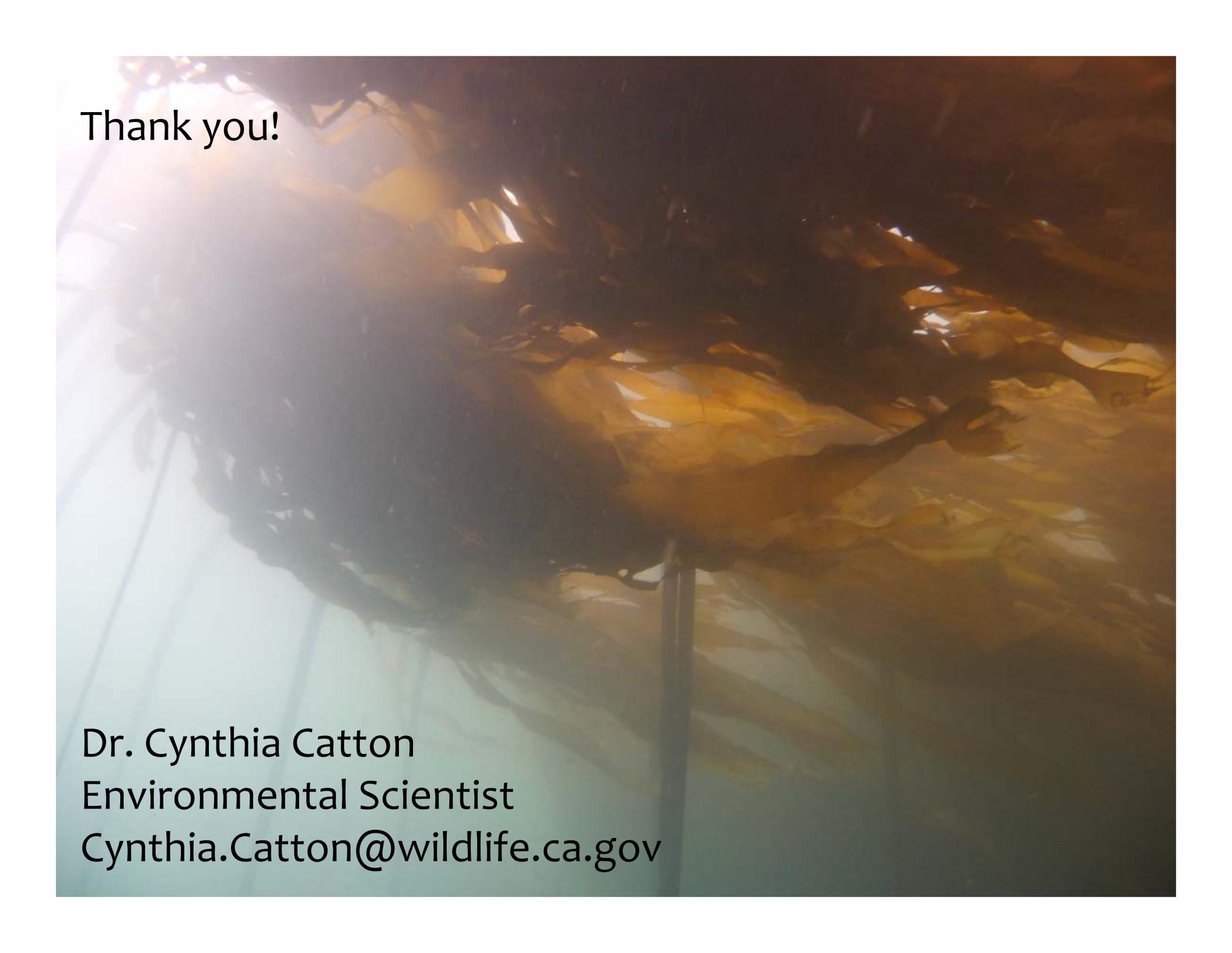
Reset Map

# Coordinated Recreational Harvest Events

- Watermen's Alliance and others are organizing a series of events in Sonoma County (Memorial Day Weekend)
- KELPRR partners are developing ecosystem monitoring programs, educational materials, and options for use of harvested urchin materials

# Multi-Pronged Approach to Kelp Recovery

- Recent survey findings and fisheries impacts illustrate need for immediate action
- Kelp recovery requires strong collaborative efforts on multiple fronts
- Recommend increasing daily recreational harvest allowance of purple urchins
- Provide tools for recreational harvest reporting and coordination



Thank you!

Dr. Cynthia Catton  
Environmental Scientist  
[Cynthia.Catton@wildlife.ca.gov](mailto:Cynthia.Catton@wildlife.ca.gov)