

**Talking Points**  
**Joint Committee on fisheries and aquaculture**  
**April 28, 2016**  
2:00 p.m. – 5:00 pm.  
Room 112, Capitol hearing room Sacramento, CA

Talking Points

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- Good afternoon, my name is Deborah Halberstadt and I am the Executive Director for the Ocean Protection Council (OPC) and Deputy Secretary for ocean and coastal matters at the California Natural Resources Agency.
- I want to brief you with the ongoing work of the OPC on this very important issue and our continued concern about changing ocean conditions.
- Back in February of this year the OPC chair, Secretary Laird and OPC members heard very compelling presentations on the Harmful algal bloom (HAB) events and fisheries impacts across the state. At that meeting, Secretary Laird directed OPC staff to develop a HAB task force made up of the agencies you see before you today, specifically, the Department of Fish and Wildlife (DFW), the Department of Public Health (DPH), the office of Environmental Health Hazard Assessment (OEHHA), the Fish and Game Commission (FGC) and the OPC.
- This state agency led task force is in the midst of developing several products to better inform managers about HABs in the marine environment both procedurally and scientifically.
- First, the development of procedures for opening and closing a fishery will be developed by the State Agencies on the HAB task force. This Standard Operating Procedure (SOP) will explicitly make clear the process, timing and manner in which a fishery (or fisheries) shall be closed or opened in the event of another HAB outbreak.
- On the scientific front, in response to questions from the HAB-task force and the Dungeness Crab Task Force (DCTF) the OPC directed California Ocean Science Trust to convene a Science Advisory Team (OPC-SAT) working group. This group will explore seafood testing protocols as well as longer term impacts of HAB toxins in the marine environment.
- The first of these two scientific reports that OPC-SAT working group is developing will be an informational document regarding scientific information to the state on monitoring of marine harmful algal blooms (HABs) and seafood sampling efforts for the 2016/2017 season. This document will cover a variety of questions including:
  - A comparison of California monitoring program with how other States/Countries monitor, especially along the west coast (e.g. table of what is sampled, methodologies, thresholds, etc.)
  - The task force also seeks further information regarding other bio toxins to monitor, sample size for each fishery, distance between sample sites, buffer zones, temporal recommendations, etc.

- Scientific information on sampling regime for seafood testing (size, frequency, species, etc.)
  - Begin documenting scientific synthesis and research priorities (e.g. what other species might we begin to see impacts from HABs, what other impacts might we expect, modeling options, scientific tools, etc.)
- It is important to note is that the State of California does not want to create a different standard than Oregon or Washington – as the fisheries are interconnected.
  - This draft document is expected by July 2016 and the OPC will also look for ways to share the document with the fishing community and hear feedback.
  - In addition, the development of a frequently asked questions document will be created to help provide further clarification to the public on the scientific findings of the SAT-working group. We expect to coordinate with the Dungeness crab task force (DCTF) and other interested parties on the development of these documents to make sure we are asking the right questions and providing the science information in a way that is readily understandable.
  - Finally, a longer term document is planned to answer what the impacts of domoic acid will be to the marine ecosystems along the coast of California. The goal will be to identify areas for additional research to understand impacts. Questions will focus around developing a better understanding behind domoic acid and could include:
    - What commercially important species are impacted by domoic acid and how long after bloom subsides would we expect a species to have flushed the toxin from their system?
    - Why are toxins concentrating in some geographical areas? (For example, why do some areas test very hot and then are clean in following tests and then hot again)? Does weather, terrain or something else impact this?
    - What is the mechanism by which species get elevated toxic loads?
    - How do toxins move through the food chain?
    - Toxin residence time in the organism/fish. How long will the toxin be around? What is the residence time in the environment and in the organism?
    - What are the geographical/geophysical issues that might impact the blooms? Is there some sort of attraction that brings animals to these 'hot' locations or is it random?
  - The goal of these projects will be to develop concrete actions the State can take as well as develop a list of high priority research strategies that can begin to answer these questions.
  - Thank you for having me here today to talk about the HAB task force and the work of the OPC. I'm happy to answer any questions you may have.