

# Marinas Interagency Coordinating Committee (MIACC) & Anti-Fouling Strategies Workgroup (AFSWG)

## Notes from January 27, 2022, Online Meeting

Hosted by the State Water Resources Control Board and California Coastal Commission

**Please Note:** The following meeting notes are paraphrased. The opinions expressed by Committee members, presenters, or any other participant who speaks or otherwise expresses an opinion at a meeting do not necessarily reflect the official policy or position of the State Water Resources Control Board, California Coastal Commission, or Marinas Interagency Coordinating Committee and Anti-Fouling Strategies Workgroup. Meetings of this Committee and Workgroup provide an open forum where all participants are invited to share their input and opinions with mutual respect for other participants.

## 1. Introductions and Announcements

### Coordinators:

[Michael Hanks](#)<sup>1</sup> – Nonpoint Source Program, State Water Resources Control Board

[Vanessa Metz](#)<sup>2</sup> – Coastal Water Quality Program, California Coastal Commission

[Christopher Marquis](#)<sup>3</sup> – Coastal Water Quality Program, California Coastal Commission

### Participants and Affiliations:

- Colin Anderson- American Chemet Corporation
- Shelly Anghera- Moffatt & Nichol Engineering
- Kate Buckley- Wood PLC
- Lina Ceballos- California State Lands Commission
- Keren Dill- California State Parks, Division of Boating and Waterways
- Emily Duncan- Los Angeles Regional Water Board
- Michael Hanks- State Water Board
- Raymond Hiemstra- Orange County Coastkeeper
- Sue Keydel- U.S. Environmental Protection Agency
- Christopher Marquis- California Coastal Commission
- Jeanie Mascia- State Water Board
- Vivian Matuk- California State Parks & California Coastal Commission
- Vanessa Metz- California Coastal Commission
- Jian Peng- Orange County Public Works
- Chris Scianni- California State Lands Commission
- Riley Smith- California Department of Pesticide Regulation
- Chris Stransky- Wood PLC
- Maral Tashjian- Los Angeles County Department of Beaches and Harbors
- Jun Zhu- Los Angeles Regional Water Board

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### **Participant Updates and Announcements:**

[Mike Hanks]: The State Water Board wanted to have better engagement with its stakeholders so they distributed a survey to past MIACC meeting participants to get general feedback about the meetings. The survey asked what issues participants would like to see covered; solicited suggestions for speakers and topics; and asked how the MIACC can improve the meeting content, agendas, and notes. The responses showed interests in in-water hull cleaning, anti-fouling paint regulations, issues related to Total Maximum Daily Loads (TMDLs), State Water Board grants and other State grants for boating-related TMDLs, sea level rise mitigation, blue marinas, how marinas are working to improve water quality with pollution prevention equipment, and updates from the Dept. of Pesticide Regulation (DPR) on anti-fouling measures for pleasure craft. There was a request to have Karen Hollman or Stephanie Bauer from the Port of San Diego give updates on their anti-fouling efforts. There was a request to have more state-wide examples and less coverage of Southern California.

[Jian Peng]: Introduced himself as a new member to MIACC, and as staff for Orange County Public Works. He is interested in Newport Bay anti-fouling paint issues; he will be working on the proposed Copper TMDL for Newport Bay, and anti-fouling paint is the largest source of copper identified in the TMDL.

[Riley Smith]: Introduced herself as a new member to MIACC, and as staff at the DPR. Riley mentioned the DPR Copper Monitoring Program that started in 2019, and how the DPR works to register new anti-fouling products. She will be taking over for Aniela Burant, who presented at MIACC in the past on DPR updates.

[Sue Keydel]: The National Park Service is restoring a historic ship that has a copper sheath on the hull of the boat and wants to know if the copper may impact the Copper TMDLs. California's Nonpoint Source (NPS) Program and U.S. EPA are waiting on an update from the San Francisco Regional Water Board, as they are now in coordination on this project.

### **Action Items:**

Notes, presentations, and materials from this meeting will be posted on the Coastal Commission's [Marinas and Recreational Boating webpage](#),<sup>4</sup> under the heading 'Archive of Meeting Notes & Presentations' – 2022, January.

## **2. Evaluating the Efficacy and Environmental Impact from Proactive In-water Cleaning of Commercial Vessels (1:20 – 1:50 pm)**

### **Speaker:**

- [Chris Scianni](#)<sup>5</sup> – CA State Lands Commission, Marine Invasive Species Program

### **Purpose:**

Provide a presentation on the progress of an ongoing collaborative effort to evaluate the suitability of a proactive in-water cleaning technology for commercial vessels.

### **Background:**

This presentation will be a progress report for an ongoing project to evaluate the efficacy and environmental impacts of proactive in-water cleaning of commercial vessels. As an alternative to

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reactive cleaning that involves the removal of well-developed biofouling communities from underwater vessel surfaces, proactive cleaning is intended to be performed early and often to prevent the occurrence of larger macrofouling organisms and to maintain underwater vessel surfaces at or before the biofilm stage. Proactive cleaning developers claim that their technologies are less rigorous and will reduce the risk of introducing nonindigenous species, and reduce or eliminate biocide release. The described project is an independent collaborative evaluation under the direction of the Alliance for Coastal Technologies to quantify the risk of introducing nonindigenous species and the release of biocides during this cleaning practice.

### **Materials:**

Evaluating the Efficacy and Environmental Impacts from Proactive In-Water Cleaning of Commercial Vessels (PowerPoint)

### **Notes on Presentation:**

The presentation started with a photo of a ship's hull that has a well-developed biofouling community. The biofouling community depicted in this photo poses risk to introducing non-native invasive species as this ship travels port to port. The vessel will also experience more drag from these organisms and requires more fuel. The management measure is to remove the biofouling community, by either placing the boat in a dry dock or by in-water hull cleaning. The cleaning by dry dock is much more infrequent. Hardbody biofouling organisms require heavier scrubbing, whereas soft-bodied organisms require less scrubbing.

In-water hull cleaning in the past used a human-operated machine to scrub the surface of the hull, and released the biofouling debris into the water. The vigorous scrubbing would then accelerate the release of biocides from the anti-fouling paint on the ship's hull. The newer approach uses an umbilical for in-water cleaning and debris capture, where the wash water is pumped to the dock for filtration of biofouling organisms and biocides, and then the filtered water is discharged back to the marine waters. For proactive hull cleaning, the goal is to do more frequent hull cleanings to keep the biofouling to a film or less. As this method of cleaning is more frequent, there is less risk of introducing biofouling community species to the waters where the cleaning occurs.

State Lands Commission has been a participant in a Technical Advisory Committee to evaluate the risk associated with reactive in-water hull cleaning with capture. This study analyzes hull cleaning effectiveness, debris capture efficiency, and filtration and treatment removal efficiency. The study tested one product on two boats in different locations: Baltimore, Maryland, and Alameda, California. In Maryland, there was heavy biofouling with a lot of small barnacles. In Alameda, the biofouling was moderate, but was dominated by soft-bodied organisms and algae. On both ships, the study analyzed the cleaning effectiveness by establishing a control area and a treated area. The study areas were broken into 16 sub-areas that were photographed before and after the cleaning to establish percent cover of biofouling. For debris capture efficiency, the study took samples on both boats that were 1) continuous, time-integrated at the time of cleaning, 2) 5 meters away from location, 3) 50 meters away from location, and 4) discrete samples off the ship.

Proactive cleaning efficiency analysis included the evaluation of cleaning effectiveness, as well as the amount of biocides released. A proactive cleaning robot is now deployed when the ship is stationed at port. The robot is remote-controlled, either from an office in Norway or South Korea. The study included technical considerations of ship length and total hull surface area.

### **Discussion:**

[Jian Peng]: Are the cleaning methods described in the presentation mostly for cleaning larger

commercial boats?

[Chris Scianni]: Yes, the systems we have been evaluating are for the larger commercial ships; part of this is due to the funding that comes from the U.S. Maritime Foundation. There are, however, similar concerns for recreational boating.

[Mike Hanks]: Do you know if it can be economically or technically feasible to implement the remote-control robot for the proactive cleaning?

[Chris Scianni]: There is probably a product technically like this that could be developed for recreational boating, but since this specific product is remote-controlled from Norway, there are added expenses for a product like this. The ships' owners have multiple vessels with products like this on these vessels, I am not sure if it's possible to scale down a product like this.

[Jiang Peng]: These are commercial contractors that perform this work for a living, correct? What kind of inspection or enforcement mechanism is in place for commercial vessels to use a specific technology to prevent biofouling?

[Chris Scianni]: EPA's Vessel General Permit covers proactive in-water cleaning; it does not cover the capture, filtration, and discharge of effluent. That is a separate discharge covered by an NPDES permit, and a Regional Water Board would be issuing the NPDES permit.

### **3. State Water Board's Nonpoint Source Grant Program (1:50 – 2:20 pm)**

#### **Speaker:**

- **Michael Hanks** – State Water Resources Control Board, Nonpoint Source Program

#### **Purpose:**

Present on the State Water Resources Control Board's Nonpoint Source Grant Program

#### **Background:**

The Nonpoint Source (NPS) Program administers grant money it receives from the United States Environmental Protection Agency through Section 319(h) of the Federal Clean Water Act, and from the state's Timber Regulation and Forest Restoration Fund. These grant funds can be used to implement projects that will help to reduce NPS pollution. Projects that qualify for funding must be conducted within the state's NPS priority watersheds. Project proposals that address Total Maximum Daily Load implementation and those that address problems in impaired waters are favored in the selection process.

#### **Materials:**

Overview of California CWA 319 Nonpoint Source Grant Program (PowerPoint)

#### **Notes on Presentation:**

The first NPS Management Plan was approved in 1988. The program created a 15-year strategy from 1998 to 2013, and adopted 61 Management Measures for nonpoint source water quality management. Projects receiving grants from the NPS Program must implement measurable water quality improvements and must be a program preference for a waterbody-pollutant combination. The NPS Program has 20 full-time staff: 5 staff at the State Water Board, and 1-3 staff per each of the 9 Regional Water Boards. The California Coastal Commission has two water quality analysts that are also part of the NPS Program.

The NPS Program administers a competitive grant program to implement water quality improvement projects; around \$4 million per year is administered to sub-grant recipients. Typically, there are around 10 projects selected and funded each year, addressing many NPS pollution sources. Common projects funded under the grant include fish-friendly farming, dairy and confined animal facilities projects, farm and ranch improvements, forest road treatments, post-fire recovery projects, stream restoration projects, and projects in marinas.

For grant funding, there is a \$250,000 project minimum and \$800,000 project maximum, and the project must be completed in 3 years or less. There is a 25% match requirement, unless the project is benefiting a disadvantaged community, where the applicant could get a match waiver. The projects should address a NPS Program preference, which change every cycle per the Regional Water Boards. Newport Bay, Marina Del Rey, and Shelter Island all meet the Program preferences for metal and dissolved copper.

When a project is submitted, the Program asks for watershed-based planning components, criteria for site selection, Management Measures, and Best Management Practices (BMPs). Bonus points are given to climate change resiliency, environmental justice, and human right to water. The Request for Proposals (RFP) is made public in September, with a deadline to submit in December. From December to March, the NPS Program reviews and evaluates the proposals; there is also an opportunity for the Program to ask to follow-up questions and clarifying questions. Staff then scores the proposals, and from this assessment score the proposals are competitively selected.

The Newport Bay Copper Reduction Project (\$212,890) was an education and outreach project for the City of Newport Beach as they push for non-biocide paint and educate the boating community about longer-lasting boat bottom paints. The goal of the project was to convert 50% of the boats in the Balboa Yacht Basin and 10% bay-wide to a non-biocide paint, which they did not meet. This project did result in a 73-pound reduction of copper discharges per year. In the Shelter Island Yacht Basin Copper Hull Paint Conversion Project (\$600,000), 41 boat hulls were converted to non-biocide paint, and copper discharges were reduced by 37-kilograms of copper per year.

#### **Discussion:**

[Ray Hiemstra]: The Regional Water Board staff was very helpful, but if you apply to the 319(h) program you need to be able to quantify pollutant load reduction.

[Mike Hanks]: Yes that is correct. That's a requirement for U.S. EPA and the State Water Board. It's a one of the metrics of how the program's efficacy is evaluated.

## **4. Grants and Loans Offered by California State Parks, Division of Boating and Waterways (2:20 – 2:40 pm)**

#### **Speakers:**

- [Keren Dill](mailto:keren.dill@parks.ca.gov)<sup>6</sup> – CA State Parks, Division of Boating and Waterways, Grants and Loans

#### **Purpose:**

To share a brief overview of the grants and loans offered by the Division of Boating and Waterways (DBW), with greater emphasis on:

- Vessel Sewage Management grants,
- Boating Infrastructure grants,

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- Shoreline Erosion and Beach Nourishment grants,
- Surrendered and Abandoned Vessel Exchange (SAVE) grants, and
- Public and Private Marinas Loans

### **Background:**

California has the second largest number of recreational boaters in the United States. DBW's mission is to provide safe and convenient public access to California's waterways, and leadership in promoting safe, enjoyable, and environmentally sound recreational boating. DBW does this through numerous programs. This presentation will be on the various local assistance grant and loan programs offered to public and private organizations that support DBW's mission.

### **Materials:**

California State Parks Division of Boating and Waterways Grants and Loans (PowerPoint)

### **Notes on Presentation:**

The California State Parks Division of Boating and Waterways' (DBW) mission is to promote safe and convenient public access to California's waterways, as well as safe and enjoyable, environmentally sound recreational boating. DBW has 17 grant programs to advance its mission throughout California. The state has 3 main sources of funding for these grant programs: the Harbors and Watercraft Revolving Fund, the Coast Guards' Recreational Boating Safety Grant, and the Sports Fishing Restoration and Boating Trust Fund administered by the U.S. Fish and Wildlife Service. State-wide there have been boating improvement projects awarded to 42 marinas.

DBW is responsible for aquatic invasive species control, such as the Quagga Mussel and Zebra Mussel prevention grant program that offers grant funds to prevent the spread of these invasive species to new waterbodies. DBW also provides grants for boat launching facilities.

The Surrendered and Abandoned Vessel Exchange (SAVE) awards \$2.75 million dollars annually, to allow state agencies to accept vessels from boat owners for free disposal. All vessels are destroyed so they do not enter the system and get abandoned again. In the most recent grant cycle, there were over 500 boats destroyed, with half being boats those owners voluntarily surrendered, and the other half abandoned vessels removed from the system.

DBW also has Shoreline Erosion and Beach Restoration Grants. Shoreline erosion grants can employ both hard and soft solutions to prevent shoreline erosion from occurring; a 50% cost share is required. The Beach Restoration grant funds the engineering and construction of sand replenishment on beaches, with an 85% local cost share.

DBW also has a Public and Private Marinas Loan program, for design and construction of recreational marinas. The program extends loans to publicly owned marinas and privately owned marinas. The Federal Beach Infrastructure Grant allows for engineering and design for marinas accommodating transient vessels 26 feet or longer. Transient vessels are those spending 15 days or less in a marina.

DBW offers Vessel Sewage Management grants. DBW provides sub-grants for the construction or replacement of sewage pump-outs and dump stations. DBW has also created an award-winning mobile app called "Pump Out Nav" app that tells its users where the closest pump-out stations and floating restrooms are located.

### **Discussion:**

[Mike Hanks]: How do you ensure that operations and maintenance are kept up after the money

has been distributed?

[Keren Dill]: In each grant agreement there are monitoring requirements; 3 times a year DBW staff inspects the marina's pump-outs to ensure that they are running. In the Grant agreement there is some language that will make the grant recipient pay back the grant if they decide to close the pump-out station. The Pump Out Nav App is a mechanism that allows the public to communicate with the marina operator and DBW staff. The app notifies DBW if there are issues with a pump-out, and for how long, so it's a great tool to have for pump out station management.

[Vivian Matuk]: Throughout the nation, California is really the only state that monitors the previously funded stations. With the grantees authorization, DBW also uses a dye tablet test to determine if there is a leak from the system.

~ End ~

Funding for this project has been provided in part by the U.S. Environmental Protection Agency (U.S. EPA) pursuant to Assistance Agreement Nos. C9-79757514; C9-79757515; C9-79757517, and any amendments thereto which have been awarded to the Water Board for the implementation of California's NPS Program. The content of this document does not necessarily reflect the views and policies of the U.S. EPA or the State and Regional Water Boards, nor does mention of trade names or commercial products constitute endorsement or recommendation.