MARCH 5th MEETING NOTES

NEXT MEETING DATE SCHEDULED FOR: JUNE 4, 2014

INTERAGENCY COORDINATING COMMITTEE (IACC) JOINT MARINAS AND RECREATIONAL BOATING

Extended Introductions	**10:00 AM-10:30 AM**
Jack Gregg, California Coastal Commission (CCC)	*Time: 30 Minutes*
Jowin Cheung, State Water Resources Control Board (SWRCB)	

Marina Interagency Coordinating Committee Attendance List

In Person

Anna Kennedy – SWRCB –
Barbara Heinsch – CalRecycle
Bill Krauss – The Apex Group
Jack Gregg –CCC
Jenny Newman – Los Angeles Regional Water Quality Control Board
Jowin Cheung – SWRCB
Mara Noelle – State Lands Commission
Noel Stewart – Stewart Marine
Phil Crader – SWRCB

On Phone

Adrienne Cibor, AMEC
Carlos Guitierrez – California Department of Pesticide Regulation (CDPR)
Charlotte Miyamoto – County of Los Angeles
Chris Stransky, AMEC
Diane Isley – Clean Marina Program
Dylan Porter – Port of Long Beach
Jack Paveler – County of Ventura
Jack Hickey – Blue Water Marine
Jim Haussener – California Marine Affairs and Navigation Conference
John Adriany – San Diego Yacht Club
Karen Holman – Port of San Diego
Katy Wolfe – Institute for Research and Technical Assistance
Kelly Moran – TDC Environmental
Lara Meeker – LA Waterkeeper
Larry Paul - ????
Laura De Valencia - ????
Leigh T. Johnson – University of California Cooperative Extension Agriculture and Natural Resources
Linda Candelaria – Santa Ana Regional Water Quality Control Board
Matt Peterson – California Professional Divers Association

Mia Hunt – CalRecycle
Michelle Bowman – AMEC
Mike Simon - ????
Neal Blossom – American Chemet Corporation
Rolf Schottle – AMEC
Shana Rapoport – Los Angeles Regional Water Quality Control Board
Shuka Rastegarpour – State Water Resources Control Board
Tim Riley – Tim Riley & Associates
Tom Nielsen – Nielsen Beaumont Marine Inc
Vivian Matuk – CCC / Department Boating and Waterways
Xuyang Zhang – California Department of Pesticide Regulation

Marina del Rey Water Column Copper TMDL Revision **10:30 AM-11:00 AM**
Shana Rapoport, Los Angeles Regional Water Quality Control Board *Time: 30 Minutes*

Los Angeles Regional Water Control Board (Board) approved a revision to the Marina del Rey (MDR) Total Maximum Daily Load (TMDL) for copper in the water column in February of this year. The revision will require responsible parties (i.e., County of Los Angeles, individual anchorages, and persons owning boats moored in the Marina) to reduce the amount of copper released from boat hulls in order to protect the natural habitat and recreational uses, such as sport fishing, in MDR Harbor. Changes adopted include increasing geographic extent for sediment impairment (i.e. including the western portions of the basin in addition to the back basin), adding a new listing for DDT in sediments and revising the mechanisms available to address existing in-harbor sediments.

To demonstrate compliance, the responsible parties must meet numeric targets in the water column or demonstrate that 85% boats in the harbor are using non-copper hull paints or another acceptable means of compliance approved by the Los Angeles Regional Water Board.
The Marina Del Rey Copper TMDL proposes to meet 85% copper reduction by March 2024.

Action Item(s): None

Associated Attachments with this section:

Marina Del Rey
Copper TMDL Present

Shelter Island Yacht Basin Copper Hull Paint Conversion Project **11:00 - 11:15 AM**
Karen Holman, Port of San Diego *Time: 15 Minutes*

The Port of San Diego received a $600,000 Clean Water Action Section 319 Nonpoint Source grant to help Shelter Island Yacht Basin boaters convert from copper hull paints to non-biocide hull paints. Participating in this program can save boat owners thousands of dollars. San Diego Shelter Island boaters can save 60 percent or 75 percent on stripping and painting costs for boat hulls.

Port of San Diego provided an online tool that gives boaters an estimate of what it will cost to replace their copper hull paint with an eco-friendly option, including the grant program for Shelter Island boaters. For more information, visit the Port of San Diego website.
Most boaters were happy with the boat conversion from copper hull paints to non-biocide hull paints. In addition, some boaters saw speed increasing on boats. The paint conversion may lead to more frequent cleanings. Slicker paints are easier to clean, but require more cleaning.

Action Item(s): None

Associated Attachments with this section: None

Clean Marinas Program	**11:15 AM-11:30 AM**
Diane Isley, Clean Marinas Program and Emery Cove Marina	*Time: 15 Minutes*

The Clean Marinas program is a partnership of private marinas, government, marinas and yacht clubs. The program was developed by marine industry volunteers to create a marina facility stewardship program for the purpose of protecting our waters from pollution. Through education and the use of Best Management Practices (BMP) the Clean Marinas program volunteer staff work with marina operators, yacht clubs and municipal port authorities to educate them about BMPs required to gain certification as a Clean Marina. Staff from certified marinas can also volunteer to help mentor others in a synergistic approach to growing the membership of certified clean marinas. For more information, visit the Clean Marinas Program website. As of March 2014, 123 marinas and yacht clubs are certified as clean marinas, including 67 that were recertified five years after initial certification.

Action Item(s): None

Associated Attachments with this section:

Clean Marinas Presentation.pdf

Marina del Rey Sediment and Water Column Studies: A Brief Review and Analysis Relative to Findings on Copper	**11:30 AM-11:35 AM** *Time: 5 Minutes*
Neal Blossom, Director, Global Environmental and Regulatory Affairs	

Neal Blossom discussed his views on the correlation of the survival of estuarine amphipod, Eohaustorius estaurius, and percentage of clay in Marina del Rey sediment, as well as the correlation with copper concentrations. Neal suggests that the low amphipod survival in Marina del Rey sediments may be due to grain size, instead of copper concentrations and that additional studies should be done to determine if copper is the cause of low survival. He argued that the California Enclosed Bays and Estuaries Plan call for additional lines of evidence (e.g., Toxicity Identification Evaluation (TIE) and Bioavailability studies) prior to concluding that copper

is the cause of toxicity. He disagrees with solution of dredging the copper laden sediments, saying it will cost $147 million. He also should slide of existing native species living in the marina as evidence of minor toxic effects and argued that copper anti fouling paint helps control invasive species.

Shana Rapapport clarified that the revised TMDL is for copper impairment is for the water and the data shown for Eohaustorius is from sediment toxicity testing. She indicated that TIE and bioavailability studies have been done for MDR and shown that copper is the primary toxicant for water quality biota. Linda Candelaria stated that the standard copper in the water column is based on the California Toxic Rule and is 3.1 micrograms per liter. Leigh Johnson mentioned a report that summarizes the toxic effects of copper on marine life is *Crossing Boundaries* (she indicated by email after the meeting that research regarding copper toxicity is in another document called *Making Dollars and Sense of Nontoxic Antifouling Strategies for Boats* and that information on other antifouling methods can be found in *IPM for Boats: Integrated Pest Management for Hull Fouling in Southern California Coastal Marinas*). These documents are available on the University of California Cooperative Extension's Coastal Resources webpage at http://ucanr.edu/sites/coast/Publications/

Action Item(s): None

Associated Attachments with this section:

Marina del Rey
Studies Brief Review

Announcements and Adjournment	**11:40 AM-12:00 PM**
Jack Gregg, CCC and Jowin Cheung, SWRCB	*Time: 25 Minutes*

Announcements

1. 2014 Dockwalker Trainings: Training is FREE and Dockwalking is a fantastic way to interact with boaters to help keep California's marinas, waterways, and ocean clean and healthy. The training provides an overview of environmentally-sound boating practices, information about how to conduct Dockwalking, and educational materials that Dockwalkers will distribute including the 2014 boater kits. To register for a training or if you have any questions, please feel free to contact Vivian Matuk at (415) 904-6905 or vmatuk@coastal.ca.gov.

2. 2014 Clean Marinas Preparation Courses: March 17th in Lake Tahoe. An RSVP is requested for attendance—sent to Secretary Diane Isley diane@emerycove.com.

3. Boom Deployment Workshop for San Francisco Bay and Delta Marina and Yacht Club Operators at 1080 Nimitz Avenue, Building 117, Vallejo, CA 94592 on Thursday, April 3rd from 8:15 am to 3:30 PM (see attachment).

Action Item(s): Please submit any topics or suggestion for the next meeting to Jowin Cheung (jowin.cheung@waterboards.ca.gov) or Jack Gregg (Jack.Gregg@coastal.ca.gov)

Associated Attachments with this section:

BoomTr_2014.pdf

ANTIFOULING STRATEGIES (AFS) WORKGROUP

Introductions	**1:00 PM-1:15PM**
Jack Gregg, CCC and Jowin Cheung, SWRCB	*Time: 15 Minutes*

Antifouling Strategy Work Group Attendance List

In Person

Anna Kennedy – SWRCB – In Person
Barbara Heinsch – CalRecycle – In Person
Bill Krauss – The Apex Group – In Person
Denise Alders – California Department of Pesticide Regulation – In Person
Jack Gregg –CCC – In Person
Jowin Cheung – SWRCB – In Person
Mara Noelle – State Lands Commission – In Person
Nan Singhasemanon – California Department of Pesticide Regulation – In Person
Noel Stewart – Stewart Marine – In Person
Phil Crader – SWRCB – In Person

On Phone

Adrienne Cibor – AMEC – On Phone
Barry Snyder - AMEC – On Phone
Carlos Guitierrez – California Department of Pesticide Regulation – In Person
Charlotte Miyamoto – County of Los Angeles – In Person
Chris Stransky - AMEC – On Phone
David Elias – San Francisco Regional Water Quality Control Board– On Phone
Diane Isley – Clean Marina Program – On Phone
Dylan Porter – Port of Long Beach - On Phone
Jack Paveler – County of Ventura – On Phone
Jack Hickey – Blue Water Marine – On Phone
Jim Haussener – California Marine Affairs and Navigation Conference – On Phone
John Adriany – San Diego Yacht Club - On Phone
John Lewis – ES Link Services– On Phone
Karen Holman – Port of San Diego – On Phone
Katy Wolfe – Institute for Research and Technical Assistance – On Phone
Kelly Moran – TDC Environmental – On Phone
Lara Meeker – LA Waterkeeper – On Phone
Larry Paul – ???? - On Phone
Laura De Valencia – On Phone
Leigh T. Johnson – University of California Cooperative Extension Agriculture and Natural Resources – On Phone
Linda Candelaria – Santa Ana Regional Water Quality Control Board – On Phone
Marlan Hoffman – California Marine Service Inc – On Phone
Matt Peterson – California Professional Divers Association – On Phone
Mia Hunt – CalRecycle – On Phone
Michelle Bowman – AMEC – On Phone
Mike Simon - ???? – On Phone

Neal Blossom – American Chemet Corporation – On Phone
Patrick Earley – Space and Naval Warfare Systems Command, U.S Navy – On Phone
Ray Hiemstra – Orange County Coastkeeper – On Phone
Rolf Schottle – AMEC – On Phone
Shana Rapoport – Los Angeles Regional Water Quality Control Board – On Phone
Shuka Rastegarpour – State Water Resources Control Board – On Phone
Steve Cappellino – Anchor QEA - On Phone
Tim Riley – Tim Riley & Associates – On Phone
Tom Nielsen – Nielsen Beaumont Marine Inc – On Phone
Vivian Matuk – CCC / Department Boating and Waterways – On Phone
Xuyang Zhang – California Department of Pesticide Regulation – On Phone

Vessel In-Hull Cleaning BMP Factsheet	**1:15 PM-1:30 PM**
David Elias, San Francisco Bay Regional Water Quality Control Board	*Time: 15 Minutes*

In San Francisco Bay Regional Water Quality Control Board (SFB Regional Board) determined that dry-docking was best for cleaning of the hulls of ships because soluble and particulate copper, as well as paint chips, could be captured and kept out of coastal waters. Maritime Administration wanted to find method, that was acceptable to state regulators and would allow continued in-water hull cleaning.

The SFB Regional Board approved an interim BMP for in-water hull cleaning that consists of a containment and collection system capable of collecting all process water generated during in-water hull cleaning and directing it to a treatment system. This interim BMP is not a mandatory treatment system, but cleaning ships hulls in the San Francisco Bay region without this system could result in enforcement actions by the SFB Regional Board. The interim BMP employs a scrubber unit with rotating plastic brushes to remove attached biological material from a vessel's hull. The scrubber unit is held against the hull with approximately 1,000-pounds of pressure per square foot by a self-contained propeller and an approximately 400-gallon-per-minute pump on a pier or barge. (See attachment). This BMP has been used on large commercial vessels.

John Lewis of ES Link services, mentioned work in Western Australia on assessing in-water cleaning methods that capture biological waste. He stated that while the efforts are currently focussed on capture of biological organisms, that adding an organo-clay filter stage should enable copper-capture as well.The links to the two reports are below:
http://www.fish.wa.gov.au/Documents/occasional_publications/fop114.pdf
http://www.fish.wa.gov.au/Documents/occasional_publications/fop115.pdf

Action Item(s): None

Attachments associated with this section:

In-water vessel hull cleaning BMP fact she

Life Cycle Contributions of Copper from Vessel painting and maintenance activities	**1:30 PM-2:00 PM** *Time: 30 Minutes*

Patrick Earley, Space and Naval Warfare Systems Command, U.S. Navy

Mr. Early described the result from research conducted on the leaching of copper from antifouling paints using two different methods to capture copper released from the paints. One method measured the passive leaching of copper from the paint and the other simulated cleaning of the paint and measured subsequent copper release. The results were published in a paper that can be accessed at this link: http://www.tandfonline.com/doi/full/10.1080/08927014.2013.841891

The results of the research included:

- The selection and use of BMPs for maintaining antifouling coatings can have a substantial impact on the rate of copper loading to the water column.
- On average, the use of softer cleaning materials and less aggressive scrubbing resulted in one-third less copper loading than more aggressive cleaning ("non-BMP") practices.
- "Non- BMP" practices can shorten the life of the paint, and increase environmental loading with no benefit.

Action Item(s): None

Attachments associated with this section:

Life cycle contributions of copp

California Department of Pesticide Regulation Antifouling Paint Revaluation and AB 425 **2:00 PM-2:45 PM**

Nan Singhasemanon, Denise Alders, and Carlo Gutierrez, CDPR *Time: 45 Minutes*

The California Department of Pesticide Regulation (CDPR) evaluated antifouling paint copper leach rates related to in-water hull cleaning in order to recommend mitigations to protect coastal water as required by Assembly Bill 425. Their study used the Marine Antifoulant Model to Predict Environmental Concentration (MAM-PEC model) to evaluate the effects of reducing copper leaching rates on the loading of copper to waters of California marinas. The MAM-PEC model has been developed by researchers in Netherlands in year 1999, and has been used worldwide. In addition, U.S. Environmental Protection Agency uses MAM-PEC in their reregistration for copper products.

CDPR Mitigation Recommendations include reformulating copper antifouling product to achieve specific maximum allowable leach rates and reducing in-water hull cleaning frequency to no more than once a month. In addition, CDPR recommends paint registrants list some general guidelines or instructions for hull cleanings.

Action Item(s): None

Attachments associated with this section:


Cu_AFP_XZ_NS.Mar 52014_V2.pdf


2480-Appendix 1 CopperLowLeachRate


2480-Appendix 2 Copper Antifouling Pa


2480-Leahy AB425 ns.pdf


Asm Atkins Letter 2 14 14.pdf

Announcements and Adjournment	**2:45 PM-3:00 PM**
Jack Gregg, CCC and Jowin Cheung, SWRCB	*Time: 15 Minutes*

Announcements

Next meeting on June 4th, 2014.

Action Item(s): Please submit any topics or suggestion for the next meeting to Jack Gregg (Jack.Gregg@coastal.ca.gov) or Jowin Cheung (jowin.cheung@waterboards.ca.gov)