

**Safer Alternatives To Copper Antifouling Paint Project**  
**Stakeholder Work Group Meeting Summary**  
**10/13/08**

**I. Introduction & General Information**

There were 15 participants in attendance and 5 participants contributing via conference call.

**II. Boat Hull Testing Phase**

The Project Team identified the upcoming steps needed in preparation for the boat testing phase of the project. The primary discussion points are identified below

Goals of the Boat Testing Phase

- Perform field testing on boat hulls to document test coating performance
- Use a “real-world” dynamic method
- Longer term evaluation
- Tasks to be completed by March 1, 2009

Hull Testing Protocol Development

- Painting method
- Fouling assessment
- Cleaning

Potential Sources of Test Boats

- Rental Fleet of sail/power boats
- Private vessels
- Port of San Diego boats
- Other?

**Comments/Concerns**

At this time, the Project Team has not determined the actual number of paints that will pass through to the boat testing phase. The data analysis is set to begin and the information should be available and presented at the December 10, 2008 stakeholder meeting. There were 46 alternative paints in the panel test phase. In general, meeting attendees agreed that a large number of test coatings would make the boat test phase very complex. Suggestions to limit to only the best coatings and/or capping at a specific number would make the project manageable, while still achieving the original project goals. One suggestion was to limit to approximately 20 coatings.

There was considerable discussion regarding the types of boats to be used. One talking point was the preference for either power or sail boats. In general, attendees agreed that both sail and powerboats should be used. However, it was pointed out that paints may behave differently between power and sail boats. It was also identified that using boats in San Diego Bay, more specifically Shelter Island Yacht Basin, would be preferred, but there may be opportunities to use boats outside of the area (i.e. Newport Beach). Another option was to use a charter fleet or the Port of San Diego fleet boats.

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One attendee suggested categorizing test boats based on their amount of use (frequent, occasional, etc.) because movement plays an important role in hull paint performance. This started a discussion on the “real-world” boat usage. Most agreed that boats are used only a few times a year (40-50 hours), thus this could be a target use category. Other suggestions included using boats that stay in their slip most of the year or continuing to use the panels to have the most cost effective scenario, especially given the current financial stresses on the economy. It was also generally agreed upon that frequently used boats such as the Port of San Diego fleet boats should not be used, as this may bias the data.

The idea of using only boats that do not go into foreign waters was debated. One comment was that if test boats do not go into foreign water then we may not know how the coating performs while exposed to different environmental elements.

Another suggestion was to use boats that already have the test paint on boats to relieve the application cost. This data is seen as valuable and may be considered as additional data to the boat test phase, however a general agreement was to have a standard time zero for all boats being tested.

Applying paint was another discussion point. There were some attendees who believed that it would be ideal to apply one paint per boat. This would eliminate the potential for edge effects and other uncertainties that may occur. Other felt that quartering or applying two similar coatings on a single boat may be ideal and have used this design for their own research. This topic will be further investigated by the Project Team.

The length of the boat test phase (March-October) was also deliberated. Several attendees agreed that paints generally work well for the first 6 months and that the boat test phase should be extended to at least 12 or 18 months to observe how much the coating has degraded. It was also suggested that the timeframe be moved back one month (April) and run through the end of October to better capture the major fouling period. The Project Team acknowledged the need for additional time and has considered requesting further grant funding as this project nears completion.

Recruiting boat owners to participate in the grant project was another primary topic. Marina representatives suggested that an information packet and questionnaire be developed explaining the project and more specifically, what is being requested (project duration, costs, expectations for the boat owner, etc). Marina reps also felt that distributing this information to their boaters would generate enough response to get the needed number of boats. One suggestion was to extend the study period up to 2 years, as that may eliminate a future haul out, thus becoming more of an incentive to participate. Other options for incentives were also discussed.

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**III. Stakeholder Assistance**

Key Activities

- Haul out boats
- Preparation of boat hulls and paint application
- In-water assessment and cleaning
- Repainting of boats at project close out

Assistance Requested

a) Coating Supplier

- Provide coating and any associated material
- Be present during coating application

b) Boatyard

- Hull preparation and application of coatings
- February timeframe

c) Diver / Hull Cleaners

- In-water fouling assessment
- Cleaning
- March-October

**Comments/Concerns**

The discussion on this agenda item focused on seeking assistance from stakeholders and the anticipated costs for conducting various steps in the boat hull testing. It was determined that the costs for a haul out and repainting can vary greatly depending on several variables, including boat size, hull condition, and stripping requirements. A general cost estimate was \$40-45/foot for a general haul out which includes haul out, sanding and paint application. If stripping the existing paint has to occur, costs would increase significantly.

Boatyards stated that costs for hauling out a large number of boats may be significant, especially if there are many that have to be stripped. As such, it would be financially difficult for them to provide in-kind efforts and will need some compensation for their services. Boatyard representatives also stated that February would be an ideal time to conduct the haul out and painting services because it is not the peak season.

The Project Team asked for guidance on how to use hull cleaners for this project. A major concern was how to ensure consistency during cleaning and reporting. Options that were identified included having boaters use their current divers, having a single diver/ dive company assigned to the project, using a standard cleaning method, or requiring diver training for any hull cleaner associated with the project. Having the current diver/dive company continue cleaning would be

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the most cost effective, however, it could produce the most variability in cleaning and/or assessment. There was agreement that a general training should be provided to all divers involved with the project's boats. Additionally, many attendees felt that, due to the different coatings in the study, a standard cleaning regime for all paints is not ideal. Hull cleaners expressed concern on the potential number of boats in the study and the amount of time that would be needed to clean and/or assess boat hulls. It was restated to attempt to keep the number of test boats to a minimum.

There was considerable discussion on how to cover all of the anticipated costs for boat hull testing. Several options were discussed. Suppliers generally agreed to provide test coatings (including any required primer coats) at no cost to the boater. In previous studies, coating suppliers have paid for the cost of the haul out and supplied their test paints. This option could be evaluated, however, may not work for all suppliers. Another option is to have boat owners cover the cost of a routine haul out while the coating suppliers cover the paints, prep, and any additional stripping that is required prior to applying their test coating. If boat owners had already planned (and budgeted) for their boat to be repainted this season, this option would not increase their costs. Another option was to contact other parties/agencies to see if they would be willing to cover some of the costs. There was a consensus that once a decision is made, there should be an agreement between the boat owner, supplier, boatyard, hull cleaner on how costs will be allocated and the expectations of each party. The Project Team will take all input into consideration over next few months and continue researching the options to determine what is best for all stakeholders.

#### **IV. Upcoming Schedule**

**December 10, 2008:** Stakeholder work group meeting (discuss panel results)

**January – March 1, 2009:** Boat Testing Phase Protocol Development

**February, 2009:** Coatings applied to boats

**March – October, 2009:** Boat Testing Phase

#### **V. Other Items/Next Meeting**

The next stakeholder work group meeting is set for December 10, 2008. If issues come up before the next meeting that requires discussion by the work group, the Project Team will schedule a work group meeting.