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Title: PRESENTATION AND DIRECTION TO STAFF ON IN-WATER HULL CLEANING POLICY APPROACHES:
A) INFORMATIONAL UPDATE ON IN-WATER HULL CLEANING BENCHMARKING AND CONCEPTUAL MODEL UPDATE;
B) REVIEW OF PORT DISTRICT REGULATION OF IN-WATER HULL CLEANING; AND
C) ADDITIONAL VESSEL POLLUTION MATTERS

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Date	Ver.	Action By	Action	Result
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DATE: October 8, 2019

SUBJECT:

PRESENTATION AND DIRECTION TO STAFF ON IN-WATER HULL CLEANING POLICY APPROACHES:

- A) INFORMATIONAL UPDATE ON IN-WATER HULL CLEANING BENCHMARKING AND CONCEPTUAL MODEL UPDATE;
- B) REVIEW OF PORT DISTRICT REGULATION OF IN-WATER HULL CLEANING; AND
- C) ADDITIONAL VESSEL POLLUTION MATTERS

EXECUTIVE SUMMARY:

At the June 2019 Board of Port Commissioners Meeting, District staff presented updates on the Shelter Island Yacht Basin (SIYB) Total Maximum Daily Load (TMDL) and the Copper Reduction Program. During that presentation, staff discussed the need for additional copper reduction policies that would support copper load reduction efforts to meet 2022 TMDL compliance and achieve California water quality standards. Staff recommended exploring policy approaches related to In-Water Hull Cleaning (IWHC). The Board of Port Commissioners supported that recommendation and directed staff to evaluate policy options related to in-water hull cleaning.

Since the June 2019 BPC meeting, staff has conducted further research on the status of regulatory and scientific matters related to the SIYB TMDL and in-water hull cleaning, met with a number of stakeholders, attained general consensus on the best available science, and received early input on

copper reduction strategies that can improve water quality.

A Conceptual Model update using the best available science was completed in September 2019. This technical evaluation found that while the TMDL's copper loading reduction compliance targets are consistent with the best available science, the TMDL's projected load contribution from in-water hull cleaning may be underestimated due in part to the manner in which the active and passive loading components are assessed.

Staff also initiated a process to include the public in review of the District's current in-water hull cleaning regulations. This review includes, reviewing the current In-Water Hull Cleaning Permits and associated Best Management Practices (BMP) requirements, and potential enhancements to District Ordinance 2681, *Unified Port District Code Section 4.14 Regulation of In-Water Hull Cleaning*.

The presentation accompanying this Board agenda item, will further discuss the aforementioned elements and provide options for approaches to further the District's copper reduction efforts, TMDL compliance and other potential vessel-related pollution matters that have been brought to staff's attention over the course of the year.

RECOMMENDATION:

Receive presentation from staff regarding In-Water Hull Cleaning-related policy options to support direct load reductions of dissolved copper into SIYB and the attainment of water quality standards; and provide direction to staff on further policy development.

FISCAL IMPACT:

This item is for presentation purposes only and has no fiscal impact.

COMPASS STRATEGIC GOALS:

This agenda item supports the District's strategic goals by seeking copper reductions throughout San Diego Bay and working to improve water quality, with an emphasis on SIYB.

This agenda item supports the following Strategic Goal(s).

- A Port that the public understands and trusts.
- A Port with a healthy and sustainable bay and its environment.

DISCUSSION:

Regulatory Background

In 2005, the San Diego Regional Water Quality Control Board (Regional Board) adopted a Dissolved Copper TMDL for SIYB as a result of impaired water quality. The TMDL requires a 76 percent reduction of copper loading into SIYB by 2022. The TMDL named the District, the City of San Diego, the SIYB marinas and yacht clubs, hull cleaners, and the recreational boaters themselves, as parties responsible for reducing their copper pollution loads.

June 2019 Board of Port Commissioner Meeting Summary

At the June 2019 Board of Port Commissioner Meeting, District staff presented updates on the SIYB TMDL and the Copper Reduction Program. Results from the 2018 Annual Monitoring Event were shared, where vessel tracking indicated that there has been an estimated 45.2 percent (approximately 948 kg/yr) reduction in copper loading and water quality testing showed the basin average to be 6.7 µg/L (California Water Quality Standards are set at 3.1 µg/L). Staff addressed the need for additional copper reduction policies to increase load reductions and make improvements in water quality, in line with Board of Port Commissioner's Resolution 2009-230, to meet the 2022 TMDL final loading compliance target and most importantly achieve water quality standards. Staff proposed that future policy approaches should be focused on In-Water Hull Cleaning (IWHC). The Board of Port Commissioners directed staff to evaluate potential policy options to reduce copper loads into SIYB and return at a future Board meeting.

A) Informational Update on In-Water Hull Cleaning Benchmarking and Conceptual Model Update

Since the June 2019 Board of Port Commissioner (BPC) Meeting, staff has used a methodical and stepped approach to evaluate potential policy options. This approach included outreach to interested parties, benchmarking regulatory progress in similar copper matters, reviewing the best available science, reviewing current District policy, and evaluating policy development options that could best support water quality improvements and TMDL requirements.

Benchmarking

Benchmarking allowed District staff to better understand the TMDL concerns of interested parties and learn about progress on regulatory and/or policy matters related to copper in similar programs around the state and country. Many of the current TMDL concerns shared with staff by the marina and yacht club managers were shared in May 2019 during a Best Management Practice (BMP) workshop and summarized by staff at the June 2019 BPC meeting. These concerns were echoed in follow-up meetings this summer, and correlate with the District's intent to reduce loading from in-water hull cleaning and improve water quality in SIYB and throughout the bay's marina basins.

Over the past several months, staff met with interested parties, those mentioned above as well as boaters, In-Water Hull Cleaners and members of the general public, to hear current opinions on the TMDL and discuss potential policy options that support further direct load reductions, improving water quality and meeting TMDL requirements. Staff also held conference calls and attended workshops to stay informed on the current status and approaches of other copper TMDL programs (namely Marina Del Rey and Newport), and received an up-to-date status of copper-related regulations currently in place in Washington. Benchmarking activities that occurred throughout the Summer 2019 are summarized in Attachment A.

Conceptual Model Updates

Concurrent with benchmarking activities, District staff also began working to further evaluate and compare the latest scientific copper loading assumptions to the TMDL's loading assumptions. This TMDL Conceptual Model Review effort was initiated to address concerns raised by District staff and interested parties regarding the overall contribution of copper into the water from in-water hull cleaning practices (Attachment B). Also of note, was the finding that during the District's recent water

quality study for the Boatwash (a Blue Economy Incubator project), diver-based in-water hull cleaning during a single cleaning event was demonstrated to increase copper levels in the water 5-10 times greater than the 3.1 µg/L California Water Quality Standard for dissolved copper (Attachment C).

Based upon general consensus amongst District staff, the Shelter Island Master Leaseholders, and the SDPTA it was determined that a report entitled, *“Life Cycle Contributions of Copper from Vessel Painting and Maintenance Activities”* (Earley et al. [2013]) serves as the best available science to date. This study was conducted for the Department of Pesticide Regulation and evaluated leach rates resulting from both the act of in-water hull cleaning and its residual effects following the active cleaning of the hull (i.e. the lifecycle of a paint).

The TMDL Conceptual Model Review includes a comparative analyses of the 2005 TMDL conceptual model and best available science life-cycle conceptual model (Earley et al. 2013) for copper loading contribution calculations from antifouling paint leaching and in-water hull cleaning activities. Key findings suggest adaptive management measures to review vessel hull cleaning frequency and practices may lead to copper load reductions and water quality improvements to meet SIYB TMDL requirements.

The Conceptual Model Update confirmed that the total annual per-vessel dissolved copper load used in the TMDL and Earley et al. (2013) are similar. However, the individual load assumptions attributed to in-water hull cleaning differ considerably between the TMDL and Earley et al. (2013) studies. The TMDL conceptual model utilizes assumptions of instantaneous and static copper release closely correlated in time with hull cleaning events, while the more recent technical analyses (Earley et al. 2013) indicate a volatile timeframe of increased and dynamic copper release in the 30 days following hull cleaning events. This finding suggests that copper release rates following periodic hull cleaning events may provide greater than a 5% relative contribution to annual loading over an estimated three-year paint life cycle.

Thus, given the findings, it is likely that reductions to in-water hull cleaning frequencies will have a greater load reduction effect than what is currently projected using the TMDL assumption, and is likely to improve water quality as well. This finding emphasizes the importance of changes in hull cleaning practices as a key strategy to achieve the required load reduction needed to meet the SIYB dissolved copper TMDL final compliance target.

Staff plans to present these findings to the San Diego Regional Water Quality Control Board later this year and discuss the potential for making administrative changes to the TMDL’s Conceptual Model, which in turn would update loading calculations on an annual basis. Staff plans on including interested parties in these discussions.

B) Review of Port District Regulation of In-Water Hull Cleaning

In early September staff began a process to include the public in a review of the District’s in-water hull cleaning policies and practices (Attachment D). As part of this process, staff has met with several SIYB marinas and yacht clubs who expressed interest in working with the District to make improvements and modifications to the current IWHC policies and practices.

The current review includes reviewing the current In-Water Hull Cleaning Permits and associated Best Management Practices (BMP) requirements. District staff are evaluating potential enhancements to District Ordinance 2681, Unified Port District Code Section 4.14 *Regulation of In-*

Water Hull Cleaning, and may recommend revisions for the Board's review in the coming months.

Key themes in this review process include:

- Permit Issuance Processes;
- BMP Requirements;
- Tracking associated with any new requirements; and
- Enforcement

The above information was presented during a series of public engagement workshops being held October 2-3, 2019. Interested parties were informed and invited to attend via email notifications and postings on the District's website. Given the abbreviated time between those meetings and the publication of this agenda, the findings are not discussed herein, but will be discussed during staff's presentation for this agenda item.

C) Additional Vessel Pollution Matters

Addressing Vessel Pollution

Over the past year, the District has received notices of potential illegal releases of wastewater or sewage from recreational and commercial vessels at the anchorages, moorings and marinas within San Diego Bay. Complaints have also been received regarding the maintenance of vessels at berth in sportfishing landings and in marinas that have the potential to release pollutants to San Diego Bay, which is strictly prohibited under existing law. District staff has met with the Port Tenants Association, marina managers, and private individuals to accept complaints and receive information on several occasions and has conducted several investigations. Enforcement, including the issuance of citations and fines, has occurred when sources have been identified. However, source identification has been challenging since the discharges are not often observed linked to a source and wind and tidal action quickly move discharges throughout the bay. Vessel sewage-related concerns were also recently raised during the public comment period of the Port Master Plan Update item at the September Board of Commissioners meeting. This information was further discussed in a recent memo dated September 19, 2019 (Attachment E).

Vessel Pollution Approaches

Illicit vessel discharges can be a threat to the recreational, aesthetic and overall health of the bay. Though already prohibited by existing laws and regulations, including the Port Code, these discharges may be prevented through additional outreach and programmatic strategies, and enforcement.

It remains unclear why reports of potential illicit vessel discharges have grown more frequent of the past several months. Staff is evaluating the most effective and efficient mechanism with which to address the copper reduction efforts and other vessel pollution matters. During the Board presentation, staff will be discussing in more detail the approaches outlined below, as well as providing a draft schedule for a timely roll out of policy updates.

1) Updates to the In-Water Hull Cleaning Ordinance

As stated above, staff is currently evaluating updates to the District's In-Water Hull Cleaning Ordinance. Updates being considered include the alignment of District BMPs with mitigation measures identified by the Department of Pesticide Regulation. These include limiting cleaning to a one-time per month cleaning frequency and the requirement to use only soft carpet as the cleaning material. Staff is also evaluating the current permit and BMP plan approach, as well as updates to tracking and enforcement processes.

Similar to the District's current in-water hull cleaning ordinance, any updates would be implemented baywide and would include provisions that in-water hull cleaners, marinas and yacht clubs, and boat owners must follow. Outreach has already been occurring to the target audiences: boaters, marinas/yacht clubs, in-water hull cleaners, boatyards, and the boating community at large; and feedback has been obtained from other regulatory agencies and TMDL-affected municipalities.

Staff will be taking the input received during these outreach efforts and from the Board into consideration, and is prepared to present a draft updated ordinance to the Board and the public in short time.

2) Comprehensive Vessel Pollution Approach

District staff is also exploring a more holistic approach to vessel pollution rather than trying to tackle each issue separately. Such an approach to vessel pollution prevention may be an effective strategy to continuously improve the overall water quality around San Diego Bay. This concept could include potential modifications to the District's programmatic pollution prevention tools such as the use of dye tablets in holding tanks to improve source identification and by placing further restrictions on the types of activities that may be occurring outside of boatyards. Please note that of the 35 marinas in San Diego Bay, 23 are members of the voluntary Clean Marine Program¹, meaning that most of the marinas are already familiar with and should be implementing and imposing upon their members strict vessel discharge requirements. While staff has received some public input on the issues and suggestions for how to resolve various reported vessel discharge issues, additional engagement and evaluation are needed.

Next Steps:

Staff will be discussing both policy concepts during the Board meeting and will be providing a conceptual timeline that outlines the most effective manner in which these concepts can move forward. Staff will be seeking Board direction and concurrence on the approach and will be prepared to bring policy updates back to the Board within the year.

General Counsel's Comments:

The Office of the General Counsel reviewed this agenda as presented to it as to form and legality.

Environmental Review:

The proposed Board item, including without limitation, a presentation and direction to staff on in-water hull cleaning policy approaches, does not constitute an "approval" or a "project" under the definitions set forth in California Environmental Quality Act (CEQA) Guidelines Sections 15352 and 15378 because no direct or indirect changes to the physical environment would occur. CEQA requires that the District adequately assess the environmental impacts of projects and reasonably foreseeable activities that may result from projects prior to the approval of the same. Any project developed as a result of Board's direction that requires the District or the Board's discretionary

approval resulting in a physical change to the environment will be analyzed in accordance with CEQA prior to such approval. CEQA review may result in the District, in its sole and absolute discretion, requiring implementation of mitigation measures, adopting an alternative, including without limitation, a “no project alternative” or adopting a Statement of Overriding Consideration, if required. The current Board item in no way limits the exercise of this discretion. Therefore, no further CEQA review is required.

In addition, this Board item complies with Section 87 of the Port Act, which allows for the construction, reconstruction, repair, maintenance, and operation of public buildings, public assembly and meeting places, convention centers, parks, playgrounds, bathhouses and bathing facilities, recreation and fishing piers, public recreation facilities, including, but not limited to, public golf courses, and for all works, buildings, facilities, utilities, structures, and appliances incidental, necessary, or convenient for the promotion and accommodation of any of those uses. The Port Act was enacted by the California Legislature and is consistent with the Public Trust Doctrine. Consequently, the proposed project is consistent with the Public Trust Doctrine.

This Board item does not allow for “development,” as defined in Section 30106 of the California Coastal Act, or “new development,” pursuant to Section 1.a. of the District’s Coastal Development Permit (CDP) Regulations because they will not result in, without limitation, a physical change, change in use or increase the intensity of uses. Therefore, issuance of a Coastal Development Permit or exclusion is not required. However, development within the District requires processing under the District’s CDP Regulations. Future development, as defined in Section 30106 of the Coastal Act, will remain subject to its own independent review pursuant to the District’s certified CDP Regulations, PMP, and Chapters 3 and 8 of the Coastal Act. The prospective Board’s action in no way limits the exercise of the District’s discretion under the District’s CDP Regulations. Therefore, issuance of a CDP or exclusion is not required at this time.

Equal Opportunity Program:

Not applicable

PREPARED BY:

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Program Manager, Environmental Protection

Attachment(s):

Attachment A: Benchmarking Activities Table
Attachment B: TMDL Conceptual Model Review
Attachment C: Board Memo: Boatwash Report Published
Attachment D: Board Memo: Notification of Administrative Review
Attachment E: Board Memo: Notification of Vessel Pollution Complaints

¹ The Clean Marine Program is a voluntary partnership of private marina owners, government marina operators, boatyards and yacht clubs. The Clean Marine Program was developed to ensure clean facilities exist in the boating communities and protect waterways from pollution. More information, a list of currently certified facilities, and membership requirements can be found at: <https://cleanmarina.org/index.html>.