

EXECUTIVE OFFICER SUMMARY REPORT
May 8, 2013

- ITEM: 7
- SUBJECT: General NPDES Permit Issuance: General Waste Discharge Requirements for Discharges from Boatyards and Boat Maintenance and Repair Facilities Adjacent to Surface Waters within the San Diego Region (Tentative Order No. R9-2013-0026, NPDES No. CAG719001) (*Kristin Schwall and Michelle Mata*)
- PURPOSE: To receive public testimony and consider adoption of Tentative Order No. R9-2013-0026 (Tentative Order).
- RECOMMENDATION: Adoption of the revised Tentative Order No. R9-2013-0026 is recommended.
- KEY ISSUES:**
1. The Tentative Order establishes end-of-pipe chronic toxicity effluent limitations for industrial storm water discharges and requires use of the United States Environmental Protection Agency (USEPA) Test of Significant Toxicity (TST) approach to determine if the discharge is toxic. This issue is discussed in Section IV.B, Table 5, pg. 17 and in Attachment F Section IV.C.3.a and IV.C.5, pgs. F-29 and 30 of the Revised Tentative Order (**Supporting Document 11**).
 2. The current individual NPDES Permits for the Boatyards have an acute toxicity effluent limitation which is not retained in the Tentative Order. Several stakeholders argue that acute toxicity testing would provide more representative data on the toxicity of industrial storm water discharges resulting from short term duration storm events. This issue is discussed in the Response to Comment No. F.4, pg. 11(**Supporting Document 10**).
 3. The Tentative Order requires end-of-pipe industrial storm water discharge monitoring for chronic toxicity. Several stakeholders argue that chronic toxicity tests are an invalid end-of-pipe measure for assessment of industrial storm water toxicity impacts on receiving waters due to the intermittent nature of storm water runoff and varying

rainfall intensities and durations. Stakeholders also argue that receiving water monitoring for toxicity is more protective of water quality and beneficial uses than end-of-pipe toxicity monitoring and is the only technique that accurately measures toxicity impacts from storm water discharges. This issue is discussed in the Response to Comment No. E-1, pg. 7 (**Supporting Document 10**). Additional information is located in Attachment E, Section IV.A.1, pg. E-6 and in Attachment F Section IV.C.5, pg. F-30 of the Revised Tentative Order (**Supporting Document 11**).

4. The United States Navy requests greater region-wide consistency in implementing toxicity water quality standards for all types of storm water discharges (i.e. industrial and municipal storm water) that have the potential to impact water quality. This issue is discussed in the Response to Comment No. G.2, pg. 16 (**Supporting Document 10**).

DISCUSSION:

Overview of the Tentative Order

The Tentative Order is a General NPDES Permit that proposes to consolidate regulation of discharges from Boatyards and boat maintenance and repair facilities (collectively referred to as Boatyards) located adjacent to surface waters in the San Diego Region. The Tentative Order will provide coverage for discharges from nine existing Boatyards which are currently regulated under individual NPDES Permits: 1) Driscoll Custom Boats, 2) Marine Group Boat Works – National City (formerly Knight and Carver YachtCenter), 3) Koehler Kraft Company, Inc., 4) Nielsen and Beaumont Marine, 5) Shelter Island Boatyard, 6) Marine Group Boat Works – Chula Vista (Formerly, Southbay Boat Yard), 7) Dana Point Shipyard, 8) Driscoll Mission Bay, and 9) Oceanside Marine Centre. The Tentative Order also provides for the future enrollment and coverage of other new or as yet unregulated Boatyards that will be effective when the San Diego Water Board issues a Notice of Enrollment (NOE) which may include additional or increased monitoring or other facility-specific requirements. (**Supporting Documents 1 and 2**).

The individual NPDES Permits regulating the nine existing Boatyards will be superseded on the effective date of the Tentative Order. The region-wide approach of the Tentative Order offers the opportunity to better achieve regulatory

consistency as well as maximum efficiency and economy of resources for both the San Diego Water Board and the Boatyards. If adopted, the Tentative Order will remain in effect for a five-year fixed term.

The Tentative Order includes a detailed Fact Sheet in Attachment F (**Supporting Document Nos. 2 and 11**) pursuant to Title 40, Code of Federal Regulations (CFR), Part 124.8 (a) (40 CFR 124.8(a)) that sets forth the principal background information, facts, regulatory and legal citations, data, and references relied upon in developing the Tentative Order. The Tentative Order implements the NPDES permitting requirements in the federal Clean Water Act, the Code of Federal Regulations, and the California Water Code. The Tentative Order also updates the waste discharge requirements to be consistent with USEPA's Test of Significant Toxicity Implementation Document, USEPA's Multi-Sector General Industrial Permit, the State Water Board's *Water Quality Control Plan for Enclosed Bays and Estuaries* (Sediment Quality Plan), and the San Diego Water Board's *Water Quality Control Plan for the San Diego Basin* (Basin Plan). The requirements of the Tentative Order are largely unchanged from the Boatyards' current individual NPDES Permits except for the changes listed further below under "Significant Changes."

Public Review and Comment on Tentative Order

The Tentative Order was developed over the past year through a participatory approach designed to actively engage key stakeholders (i.e. USEPA, environmental organizations, business groups, and the Boatyards). This stakeholder participation process included three key meetings with many or all of the Boatyards on October 20, 2011, December 7, 2012, and December 11, 2012 and many individual conversations with Boatyard representatives. The process also included an opportunity for stakeholders to review an administrative draft of the Tentative Order and provide written comments. As a result, the Tentative Order has undergone substantial revisions over this time period and now incorporates stakeholder recommendations throughout the document.

The Tentative Order was noticed and released for formal public review and comment on February 8, 2013. The written comment period ended March 11, 2013. All timely written comments received were posted on the San Diego Water Board website and are included below as **Supporting**

Documents 3 through 9. The San Diego Water Board has provided written responses to these comments (**Supporting Document 10**). Additionally, the Tentative Order has been revised in response to these comments. The revisions are highlighted in redline/strikeout text in the revised Tentative Order (**Supporting Document 11**). A summary of the substantive comments received on the Tentative Order and the San Diego Water Board's response is provided below.

City of San Diego Comments

By letter dated March 6, 2013 (**Supporting Document 6**), the City of San Diego objected to chronic toxicity testing of samples collected prior to the point of discharge. The City contends that such sampling is not representative of the impact of freshwater storm water discharges to a marine environment. The City recommends designating a receiving water dilution zone for compliance determinations of toxicity results because fresh water discharges to marine environments will create conditions in the immediate zone of influence that cannot be tolerated by marine species, regardless of storm water pollutant levels. The City of San Diego is not a Discharger subject to the requirements of the Tentative Order.

The Clean Water Act prohibits the discharge of a pollutant by any person except as authorized under specified statutory sections. The term "discharge of a pollutant" is defined as "any addition of any pollutant to navigable waters from any point source." It's important to note that water alone is not a pollutant under the Clean Water Act and the lower level of salinity in storm water as compared to marine waters is also not a pollutant. Storm events occur naturally and the infusion of the resulting fresh water runoff into San Diego Bay would and does occur regardless of the runoff passing through the Boatyards on the way to San Diego Bay. The end-of-pipe chronic toxicity testing required under the Tentative Order is meant to detect the aggregate toxic effects of monitored known pollutants, as well as the toxic effects of unmeasured pollutants, in the industrial storm water discharge. The discharge of lower levels of salinity in storm water (absent pollutants) to marine waters is generally not subject to Clean Water Act regulation and is not a consideration in designating the end-of pipe sampling point for chronic toxicity in the Tentative Order.

The Water Quality Control Plan for the San Diego Basin (Basin Plan) allows for the use of mixing zones on a case by

case basis. A “mixing zone” is generally defined as a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality standards can be exceeded without causing adverse effects to the overall water body. Dilution credit is the amount of dilution granted to a discharge in the calculation of a water quality based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio which is determined through conducting a mixing zone study or modeling of the discharge and the receiving water. The availability of dilution is generally described as assimilative capacity. If the pollutant concentrations in the receiving water equal or exceed the water quality standard concentration, then no assimilative capacity exists to dilute the effluent for that pollutant, and the discharger must meet the water quality standard as an “end of pipe” effluent limitation.

Guidance regarding use of mixing zones and dilution credits for toxic pollutants in non-storm water discharges is provided by the State Water Resources Control Board’s *“Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California, 2005”* (State Implementation Policy or SIP). The SIP provides that allowance of mixing zones and dilution credits as described above is discretionary and is determined on a discharge-by-discharge and pollutant-by-pollutant basis. Although the SIP does not directly apply to the regulation of storm water discharges, the SIP guidance would be relevant in considering mixing zones and dilution credits for industrial storm water discharges.

The San Diego Water Board has not to date established dilution credits or a mixing zone for any discharge to San Diego Bay primarily because of concerns about the limited assimilative capacity of the Bay for pollutants in waters where the ambient background concentrations of the pollutants exceed, or are close to exceeding, the applicable water quality standards. The issue is complex from a scientific viewpoint and involves consideration of various factors controlling bay circulation and flushing as well as pollutant movement and accumulation. The San Diego Water Board may consider allowing a mixing zone and dilution credits for San Diego Bay as suggested by the City in the future for select pollutants, but only if it is fully satisfied that the dischargers have conducted site specific studies to

demonstrate that a mixing zone and dilution credit is appropriate. Any such studies must consider the ultimate fate of any pollutants and any impacts to receiving water and sediments throughout San Diego Bay and adjacent coastal waters outside the Bay. This issue is discussed in further detail in the Response to Comment No. E.1, pages 7, 8, and 9 (**Supporting Document 10**).

San Diego Port Tenants Association and San Diego Bay Boatyards Comments

By email dated March 11, 2013 (**Supporting Document 7**), Barry J. Snyder, Aquatic Scientist, AMEC Environment & Infrastructure, Inc. (AMEC) provided comments on behalf of the San Diego Port Tenants Association and San Diego Boatyards on several requirements in the Tentative Order. The Port Tenants Association requested that the Tentative Order include a "No Exposure Certification" requirement similar to the State Water Board's draft Industrial Storm Water General Permit and the USEPA Multi-Sector General Permit. In response to this concern the Tentative Order has been revised to incorporate provisions for a "No Exposure Certification." This issue is addressed in the Response to Comment No. F.1., pg. 10 (**Supporting Document 10**). Additional information is located in the Revised Tentative Order at Section I.C, pg. 4; Section II. Finding R, pg. 12; Section XI, pg. 30; Attachment J and Attachment F Section II.C, pg. F-15 (**Supporting Document 11**).

The Port Tenants Association also maintains that chronic toxicity testing of end-of-pipe storm water prior to entering a marine receiving water environment is inappropriate and should be replaced with acute toxicity testing monitoring in the receiving water during storm events. The Revised Tentative Order includes requested changes to implement receiving water monitoring for chronic toxicity while maintaining end-of-pipe monitoring for chronic toxicity to assess compliance with the chronic toxicity effluent limitations. This issue is addressed in Response to Comment No. F.4, pg. 11 (**Supporting Document 10**) and the Revised Tentative Order, Attachment E - Section I.A pg. E-2; Section IV.C.4, pg. E-8; and Section V.A.2, pg. E-10 (**Supporting Document No. 11**).

The Port Tenants Association also requested various permit language clarifications in the monitoring and reporting program regarding the location and frequency of receiving

water monitoring. The Revised Tentative Order (**Supporting Document 11**) includes the requested changes on receiving water monitoring locations and frequency. Additional information on this issue is discussed in Response to Comment Nos. F.5, pg. 13 and F.11 pg. 16 (**Supporting Document 10**) and the Revised Tentative Order at Attachment E, Section I.A, pg. E-2 and Section V, pg. E-10 (**Supporting Document 11**). The requested changes to effluent monitoring to allow composite sampling in addition to grab sampling were not made due to considerations of cost and difficulty with implementation.

U.S. Department of the Navy Comments

By letter dated March 11, 2013 (**Supporting Document 9**), the United States Department of the Navy, Commander Navy Region Southwest (Navy), submitted comments on the Tentative Order. In general, the Navy's comments echoed the San Diego Port Tenants Association's objections to chronic toxicity testing at the end-of-pipe. The Navy is not a Discharger subject to the requirements of the Tentative Order (See Response to Comment No. G.1, pg. 16 **Supporting Document 10**).

The Navy requested that the Tentative Order's chronic toxicity requirements be consistent with the San Diego Water Board's proposed Regional Municipal Separate Storm Sewer System (MS4) permit, Tentative Order No. R9-2013-0001, as well as the draft State Water Board Draft Policy for Toxicity Assessment and Control (Draft Toxicity Policy). Under the proposed Regional MS4 permit, chronic toxicity is monitored in storm water runoff at least once during each storm season in outfalls greater than 18 inches discharging to Areas of Special Biological Significance (ASBS). The Draft Toxicity Policy recommends that all MS4 dischargers and individual industrial storm water dischargers implement a chronic toxicity monitoring program. The Tentative Order for the Boatyards requires chronic toxicity testing at the end-of-pipe because USEPA regulations require that NPDES permits include effluent limitations to control effluent toxicity where it is determined through a Reasonable Potential Analysis that a discharge causes, has the reasonable potential to cause, or contributes to an excursion above a narrative toxicity criterion. This issue is addressed in Response to Comment Nos. G.2, pg. 17 and G.3, pg. 18. (**Supporting Document 10**). Additional information is located in the Revised Tentative Order at Attachment F,

Section IV.C.5, pg.F-30.

The Navy believes the long term solution to toxicity compliance issues involves source control and the San Diego Water Board agrees. In conclusion, the Navy supports using toxicity testing of the receiving water in all NPDES storm water permits as necessary to ensure water quality protection. The Tentative Order includes receiving water monitoring for toxicity, as well as, end-of-pipe toxicity monitoring to assess compliance with effluent limitations. This issue is addressed in Response to Comment G.4, pg. 18 (**Supporting Document 10**).

Board Member Field Tour of San Diego Bay Boatyards

On April 18, 2013 San Diego Water Board Vice Chair Gary Strawn and Board member Sharon Kalemkiarian toured four San Diego Bay Boatyards on Shelter Island to get an overview of the waste and storm water control practices at the facilities. The four Boatyards were 1) Driscoll Boat Works / Driscoll Custom Boats; 2) Nielsen Beaumont Marine; 3) Shelter Island Boatyard; and 4) Koehler Kraft Company, Inc. The San Diego Water Board members were accompanied by Executive Officer David Gibson, as well as key staff members who developed the Tentative Order. The tour was public noticed in accordance with legal requirements and interested persons were invited to attend. Attendees included representatives from the City of San Diego, the San Diego Unified Port District, the US Navy, the San Diego Port Tenants Association, San Diego Coastkeeper, consultants and other interested persons.

SIGNIFICANT CHANGES:

The Tentative Order contains the following significant changes from the current individual boatyard Orders:

1. The Tentative Order is a general NPDES Permit which will regulate nine Boatyards under one permit instead of nine individual NPDES Permits. Any new boatyard or boat maintenance and repair facility may file a Notice of Intent for coverage under the Tentative Order.
2. The Tentative Order establishes chronic toxicity effluent limitations for storm water discharges based on the USEPA Test of Significant Toxicity (TST) approach. The TST is a statistical approach used to analyze toxicity test data. The acute toxicity effluent limitation specified in the

current individual NPDES Permits for the Boatyards is not retained in the Tentative Order. In 2010, USEPA promulgated the new TST approach to evaluate toxicity test results to determine if a sample exhibits toxicity or not. The State Water Board is in the process of developing a new statewide toxicity plan to implement this TST approach in analyzing toxicity data (See **Supporting Document 11**, Revised Tentative Order, Section IV., pg. 17; Section XVI.I, pg. 37; Attachment E, Monitoring and Reporting Program, Section IV, pg. E-6; and Attachment F, Fact Sheet, Section IV.C.5., pg. F-30).

3. The Tentative Order requires sediment and receiving water monitoring for Boatyards that cannot retain a 5-year, 24-hour storm. The sediment monitoring is consistent with and required under the State Water Board's Water Quality Control Plan for Enclosed Bays and Estuaries –Part 1 Sediment Quality (Sediment Quality Plan), which became effective August 25, 2009. The Boatyards' current individual NPDES Permits require sediment sampling annually for copper, grain size and total organic carbon. If the Tentative Order is adopted, the updated sediment sampling scheme, consistent with the Sediment Quality Plan, will entail collection of data to evaluate three lines of evidence - sediment chemistry, toxicity, and benthic community condition - to assess whether the aquatic life sediment quality objective has been attained. Sediment and receiving water sampling will be required two times per five year permit cycle for Boatyards that cannot retain a 5-year, 24-hour storm (See **Supporting Document No. 11**, Revised Tentative Order, Attachment E, Monitoring and Reporting Program, Section V, pg. E-10; and Attachment F, Fact Sheet, Section VI.C., pg. F-36).
4. The Tentative Order prohibits the Boatyards from discharging the first flush of runoff from each storm defined as the first 0.25 inch of rainfall. The current boatyard orders prohibit discharge of first flush rainfall defined as 0.10 inches. The updated 0.25 inch requirement is consistent with other San Diego Bay industrial storm water NPDES permits including the Naval Base San Diego (Order No. R9-2002-0169), U.S. Navy Graving Dock (Order No. R9-2003-0265), Naval Base Coronado (Order No. R9-2009-0081), and Naval Base Point Loma (Order No. R9-2002-0002) (See **Supporting Document 11** Revised Tentative Order, Section III.B, pg. 16; and

Attachment F, Fact Sheet, Section IV.A.2., pg. F-25).

5. The Tentative Order incorporates Numeric Action Levels for storm water discharges based on USEPA's latest benchmark values in their multi-sector industrial storm water permit. The current Boatyard individual NPDES permits have benchmarks based on previous USEPA benchmarks. Numeric Action Level is a State Water Board term and benchmark is a USEPA term. Both of these terms refer to the mean pollutant concentration levels used to evaluate the effectiveness of Best Management Practices (See **Supporting Document 11**, Revised Tentative Order, Section V., pg. 17).
6. The Tentative Order requires monitoring for lead, chemical oxygen demand, and chronic toxicity (instead of acute toxicity) in addition to those parameters required by the current boatyard individual NPDES Permits (See **Supporting Document 11**, Revised Tentative Order Attachment E, Monitoring and Reporting Program, Section III.A, pg. E-4; and Attachment F, Fact Sheet, Section IV.D.2, pg. F-33; and IV.D.4.c, pg. F-34).
7. Pursuant to USEPA storm water regulations, the Tentative Order includes a Conditional Exclusion - No Exposure Certification as requested by the San Diego Port Tenants Association. Dischargers that meet the requirements of a No Exposure Certification (NEC) are exempt from the Tentative Order requirement to prepare a Storm Water Pollution Prevention Plan (SWPPP), as well as sampling and monitoring requirements of the Tentative Order, except that a SWPPP is required if secondary containment is used to satisfy NEC requirements (See **Supporting Document 11**, Revised Tentative Order at Section I.C, pg. 4; Section II. Finding R, pg. 12; Section XI, pg. 30; Attachment J and Attachment F, Section II.C, pg. F-15).

COMPLIANCE
RECORD:

All of the Boatyards, with the exception of Oceanside Marine Centre, Inc., have reported no discharges of storm water from their facilities during the last permit period, i.e. since 2005 and 2006 depending on the boatyard permit adoption date. Some Boatyards have minor reporting violations such as late reports. Some BMP violations were noted during inspections at some Boatyards. A summary of the violations is provided in Attachment F, Page F-11 of the Tentative

Order (**Supporting Document 11**).

LEGAL CONCERNS: None

SUPPORTING
DOCUMENTS:

1. Location Maps
2. Tentative Order No. R9-2013-0026, version released February 8, 2013 (On CD only)
3. USEPA Comment E-mails dated February 8 and 11, 2013 (On CD only)
4. Mr. Aladdin Masry Comment Letters dated December 7 and 20, 2012, and E-mails dated February 14, March 7 and 11, 2013 (On CD only)
5. Unified Port of San Diego Comment Letter dated March 6, 2013 (On CD only)
6. City of San Diego Comment Letter dated March 11, 2013 (On CD only)
7. San Diego Port Tenants Association and San Diego Bay Boatyards E-mail with attachments dated March 11, 2013 (On CD only)
8. City of Oceanside Comment Letter dated March 11, 2013 (On CD only)
9. United States Department of the Navy Commander Navy Region Southwest Comment Letter dated March 11, 2013 (On CD only)
10. San Diego Water Board Response to Comments
11. Revised Tentative Order No. R9-2013-0026 with Changes in Redline/Strikeout, released April 26, 2013

PUBLIC NOTICE:

On February 8, 2013, copies of the Tentative Order were e-mailed to the Boatyards and to all known interested persons and posted on the San Diego Water Board's website. On February 8, 2013, a public notice was published in the San Diego Union Tribune and the Orange County Register. Notice was also provided in the Meeting Notice and Agenda for the May 8, 2013 Board meeting, which is posted on the San Diego Water Board's website.