SAN DIEGO REGIONAL BOARD RESPONSES TO COMMENTS
TENTATIVE TO ORDER NO. R9-2009-0081
NAVAL BASE CORONADO

Item No. 08
Doc. No. 08

A. Comments submitted by Brian S. Gordon, Water Program Manager, Department of the Navy, on May 27, 2009:

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1. **Storm water discharges from Navy industrial facilities rarely cause toxicity in bay waters.** The Navy performed a comprehensive, peer reviewed, scientific study of storm water toxicity (Katz et al., 2006), Enclosure (1), that was requested by and presented to the Regional Board. There were only two instances of toxicity in over 200 receiving water tests (<1% observed toxicity). It is clear from this very large dataset, collected over the entire range of expected conditions, that storm water from Navy facilities has a negligible toxic impact on San Diego Bay waters. Current Best Management Practices (BMPs) and compliance efforts by the Navy are already meeting the goals of the order to maintain beneficial uses.	It is good to know that the Bay water passes the toxicity tests. The purpose of the Order is to maintain the Bay in a state of no toxicity. The best way to accomplish this goal is to set limits on toxicity and monitor the toxicity of waste discharges to the Bay.
2. **Toxicity measured in end-of-pipe storm water samples is not predictive of toxic impacts in bay waters.** This result, based on over 300 storm water and receiving water tests, showed that toxicity was almost never found in bay waters regardless of the toxicity level measured in end-of-pipe storm water samples. This is consistent with the EPA's Technical Support Document (TSD) (EPA's Technical Support Document for Water Quality-based Toxics Control, EPA, 1991), Enclosure (2), stating on page 9: *"there is* a *less likely chance for receiving* water *impacts* to *be observed in saltwater systems as predicted by toxicity tests".* It is apparent from the study results that	Measuring toxicity in an end-of-pipe storm water sample is the only way to evaluate the potential toxicity effects from the discharge. Measuring toxicity in the receiving water evaluates toxicity inputs from many sources, and not just the discharge(s) regulated by the order. The TSD states *"there is* a *less likely chance for receiving* water *impacts* to *be observed in saltwater systems as predicted by toxicity tests",* but the saltwater systems evaluated had a greater dilution than the freshwater systems. This section of the TSD

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failing an end-of-pipe storm water sample toxicity test is not meaningful with regards to identifying potential bay impacts.	concludes: "*The results of the studies at these four sites indicates a 94 percent accuracy when using the marine and estuarine toxicity tests to predict receiving water impacts."* The TSD conclusion is that marine and estuarine toxicity tests are valid in predicting receiving water impacts.
3. **Storm water plumes from industrial outfalls are very shortlived, have a limited spatial extent and are very low in magnitude.** The volume of storm water discharged from Navy facilities is sufficiently small that it is observed only in the immediate vicinity of the discharge and is rapidly (<12 hours) assimilated. The low exposure conditions posed by the natural mixing of storm water plumes results in lack of toxic impacts. The use of whole effluent toxicity (WET) testing was intended to evaluate toxicity for large continuous discharge sources, and then, only after mixing with the receiving water was taken into account. This is consistent with EPA's TSD stating on page 11: *"The results, when linked together, clearly show that if toxicity is present after considering dilution, impact will also be present"* or *"Impact from toxics would only be suspected where effluent concentrations after dilution are* at or *above the toxicity effect concentration".* The use of Whole Effluent Toxicity (WET) testing is therefore only appropriate if it is used as intended; that is, that it be conducted on receiving water samples or on end-of-pipe samples adjusted for the magnitude and duration of the discharge.	The Fact Sheet, section IV.C.2.c. states "The Discharger has not submitted information regarding available dilution for the discharges from the Facility. Thus, the worst-case dilution is assumed to be zero to provide protection for the receiving water beneficial uses. The impact of assuming zero assimilative capacity within the receiving water is that discharge limitations are applied end-of-pipe with no allowance for dilution within the receiving water." Using a dilution of zero is very protective of the beneficial uses. However, the TSD state on page 11 "*Biological, physical, and chemical factors of the community can influence the actual effects that effluent toxicity may cause in the receiving water*" Because these factors as well as other discharges can affect the toxicity of the receiving water, the toxicity testing is required on the end-of-pipe samples. It is not appropriate to limit considerations on determining appropriate toxicity limitations in the

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	permit to the magnitude and duration of the discharge. Even a limited volume short term duration toxic discharge is prohibited by the Basin Plan toxicity objective.
4. **Copper and zinc are the primary toxicants of concern in the Navy's industrial storm water runoff.** Toxicity Identification Evaluations (TIEs) were conducted as part of the study. Data from the TIEs showed that copper and zinc were the primary cause of acute toxicity in Navy storm water discharges. This is particularly troublesome because significant sources of copper and zinc in storm water discharges are from area sources. **Area source pollutants contributing to toxicity** The toxicity requirements fail to recognize that contaminants causing toxicity in storm water discharges are found in all urban areas largely as a result of atmospheric and direct deposition from automobile sources such as brake pads and tire wear. Numerous scientific studies identify the role of automotive sources and other industrial plant generation of these contaminants. For instance, the City of San Diego has recently estimated that these sources provide an overwhelming majority of copper to the Chollas Creek watershed (Weston Solutions, 2009). These contaminants have been shown to routinely cause toxicity in parking lot runoff (Greenstein et al., 2003) including the Regional Board's own parking lot, indicating the ubiquitous nature of problem. With these findings, the City of San Diego has sponsored SB 346 (Kehoe) which would require the design of brake pads to remove contaminants of concern including	Regional Board staff agrees that area sources can contribute to storm water toxicity. To address this issue, the high risk areas as defined in the Order could be isolated so that storm water from low risk areas does not mix with storm water from high risk areas. Once these high risk areas are isolated, additional BMPs can be more readily implemented. One possible BMP for these isolated, small, high risk areas could be to capture and treat the “high risk:” storm water flows or divert them to the sanitary sewer system. The Order defines high risk areas as areas where wastes or pollutants (including abrasive blast grit material, primer, paint, paint chips, solvents, oils, fuels, sludges, detergents, cleaners, hazardous substances, toxic pollutants, non-conventional pollutants, materials of petroleum origin, or other substances of water quality significance) are subject to exposure to precipitation and runoff. These high risk areas should be minimized and isolated so effective BMPs can be implemented. It should be noted that in the Regional Board is

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copper and zinc. The Senate Environmental Quality Committee analysis of this bill, Enclosure (3), noted: *"Scientific studies have shown that* a *major source of copper in highly urbanized watersheds is material worn off vehicle brake pads. It is estimated that about one-half of the copper found in run-off is attributed* to *brake pads."* *"The ubiquity of copper in the urban environment, and the technical difficulty and impracticality of treating storm water* to *remove it, means that compliance with copper TMDLs will not be feasible without source reduction of copper. Cost could go into the billions of dollars* to *remediate if source reduction measures* are *not taken."* Further evidence that copper and zinc sources are wide spread comes from the 2006 Air Toxics "Hot Spots" Program Report for San Diego County (August 2007), Enclosure (4). Table 1 of this report lists 451,827 lbs/year of zinc and 90,132 lbs/year of copper emissions from all sources in San Diego. Of this total, 99.0% of zinc and 97.3% of copper comes from mobile, area, and natural emission sources. The remainder, 1.0% for zinc and 2.7% for copper comes from industrial sources. This offers an explanation why the Regional Board's parking lot and facility continue to fail the same toxicity test applied to the proposed order. Enclosures (5) and (6) provide storm water monitoring results for the Region Board's parking lot. Unlike the Navy's study referenced above, the Regional Board has not offered s6ientific based evidence demonstrating that storm water	currently engaged in proceedings to consider the issuance of a cleanup and abatement order to a number of parties, including the US Navy for discharging waste which contributed to the accumulation of pollutants in marine sediment at the Shipyard Sediment Site in San Diego Bay to levels, which that cause, and threaten to cause, conditions of pollution, contamination, and nuisance by exceeding applicable water quality objectives for toxic pollutants in San Diego Bay. In those proceedings it is alleged that the U.S. Navy discharged excessive concentrations of copper, lead, and zinc through its municipal separate storm sewer system (MS4) at NAVSTA San Diego to Chollas Creek and San Diego Bay in violation of waste discharge requirements. Technical reports by the U.S. Navy and others indicate that Chollas Creek outflows during storm events convey elevated sediment and urban runoff chemical pollutant loading and its associated toxicity up to 1.2 kilometers into San Diego Bay over an area including the Shipyard Sediment Site. While the Regional Board has not made a final determination in the matter the allegations do not support the conclusion that storm water discharges form Naval Installations do not have the potential to adversely affect toxicity levels in san Diego Bay.

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runoff from Navy installations is having an adverse impact on San Diego Bay; nor has the Regional Board provided scientific based findings that, given the amount of contaminants from area sources, and their small particle size, that it is possible/feasible for end of pipe/compliance with the storm water toxicity requirements. In addition, the most recent scientific data show that storm water from all sources, not just Navy outfalls, is a minor source of copper and zinc to San Diego Bay. The most recent mass loading data (Chadwick et al., 2004) show that storm water from all sources accounts for only 7% of the copper loading to the bay. The Navy's storm water contribution is on the order of 10% of the total storm water loading, and is thus a minor fraction (-1%) of the overall Bay budget.	
5. The proposed toxicity standard is not feasible The Navy has continued to investigate and employ a number of BMPs to reduce the release of toxic contaminants from its activities. Moreover, the Navy and others continue to investigate treatment technologies. Despite these efforts, however, there has been no evidence to date that BMPs or treatment technologies can consistently pass the toxicity requirements proposed in the order. The only demonstrated consistent manner to satisfy the requirement is to divert the storm water flow to the City of San Diego sanitary sewer system. For Navy installations the cost to divert storm water runoff is estimated at over $300 million. It is not clear that (1) sufficient funds could be available to implement this measure short of major	Regional Board staff recognizes that it may not be feasible to divert all storm water from the Navy facilities into the sanitary sewer system. There are other options that should be evaluated including isolating high risk areas for diversion to the sanitary sewer, eliminating or minimizing high risk areas, or biological storm water treatments systems. Grassy swales, infiltration basins, or bioretention systems could also be considered, especially for lower risk areas.

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appropriations from Congress, and (2) whether there is sufficient land on installations to build the required infrastructure without significant disruption of critical missions. It is also very unlikely, due to capacity constraints, that the City of San Diego could accommodate storm water runoff from large naval installations as they have for the smaller shipyard and boatyard facilities. Therefore, any findings of feasibility that the Regional Board may have made for the shipyard permits are not applicable to the Navy permits and should be supplemented with clear findings that the proposed conditions are economically feasible.	
6. Tentative order's Section VI.D.1.a. found on p. F-75: **Receiving Water Monitoring, Surface Water:** *"Monitoring of the receiving water is necessary* to *determine if the discharges from the Facility are impacting the receiving waters, applicable beneficial uses, and aquatic life."* The Navy could not agree more with this underlying rationale for the importance to measure in the receiving environment.	Comment noted.
7. Rational Alternative for Toxicity Requirement Though the Navy believes that toxicity measurements made in the receiving water alone are sufficient to assess impacts to beneficial uses, and continues to question the high cost of the current end-of-pipe monitoring given its limited scientific value, the Navy recommends that the following changes be made to	The US Environmental Protection Agency is supportive of the toxicity requirements. See US EPA Comments “C” below.

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the tentative permit to create a realistic monitoring requirement that will provide the necessary information to accurately evaluate whether or not beneficial uses of San Diego Bay are being protected. This change is necessary as the current toxicity test applied to end-of-pipe characterizes most storm water, including urban runoff, as toxic. This results from the emerging consensus discussed above that toxic constituents in storm water like copper and zinc are ubiquitous. The Navy believes that such overstatement of toxicity makes its use alone as a measure of compliance inappropriate and inequitably singles out Navy storm water for toxicity while ignoring similar toxicity from urban sources, including those impacting our sites from aerial deposition beyond our boundaries. The Navy's toxicity study was based on evaluating paired samples of storm water and bay water collected immediately outside outfalls to assess impacts. This methodology allowed for an assessment of the effluent as well as its impact directly in the bay. The Navy proposes that this methodology be followed in the permit so that the information derived from end-of-pipe toxicity testing can be clearly tied to a receiving water impact. Specifically the Navy recommends that: 1) The definition of a toxicity failure be redefined 2) The accelerated testing requirement be eliminated The tentative permit could continue to require that toxicity be measured in 100% effluent. **If** a sample toxicity result is declared toxic (significantly different from the control at 95% confidence level), then during a subsequent storm event a 100% effluent sample should and a receiving water sample shall be collected immediately outside of that outfall. **If** both the 100% effluent and receiving water samples collected during the second storm are declared toxic (significantly different from the control at 95%	

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confidence level), then the outcome would be a failure of meeting the order. Failure to meet the order shall then trigger a TRE to assess the causes of the failure. This requirement gets to the heart of the issue, whether the end-of-pipe storm water effluent is sufficiently toxic to cause a toxic impact in the bay. Additional end-of-pipe measurements alone (accelerated testing requirement) are insufficient to make this assessment.	
8. Current Language in Tentative Permit (Attachment E, Section V.A., p.E-14): Once each year (July-June), at a different time of year from the previous years, the Discharger shall split a single storm water and a single non-storm water effluent sample and concurrently conduct two toxicity tests using a fish and an invertebrate species; the Discharger shall then continue to conduct routine toxicity testing using the single, most sensitive species, including testing for accelerated monitoring, until the next sensitivity testing the following year. The split sample from a storm water location and from a non-storm water location must be from a sample locations which most expected toxicity and, if possible, at a different location from previous years. **Navy Comment:** The Navy recommends dropping this requirement. This requirement contradicts EPA TSD guidance that specifically states (page 58): EPA recommends against selecting a “most sensitive" species for toxicity testing." The Navy's study provided sufficient data to show that common test species showed similar sensitivity in identifying storm water	The US Environmental Protection Agency is supportive of the toxicity requirements. See US EPA Comments “C” below.

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toxicity. Also, test species are commonly not available for use thereby posing an undue constraint. The requirement will cause the Navy to incur extra cost with no benefit. Finally, there is no mechanism to obtain non-storm water samples from the Navy's storm water conveyance system as there is rarely, if any water available.	
9. Current Language in Tentative Permit (Attachment E, Section V.B., p.E-15): The Discharger shall conduct 96-hour static renewal toxicity tests with the following vertebrate species: • The topsmelt, Atherinops affinis [{Larval Survival and Growth Test Method 1006.0 {Daily observations for mortality make it possible to calculate acute toxicity for desired exposure periods (i.e., 96-hour Pass-Fail test)] in the first edition of Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95/136, 1995) (specific to Pacific Coast waters); **Navy Comment:** Because test species are commonly unavailable for use and there are so few qualifying storms, the Navy recommends adding the following: • The Inland silverside, Menidia beryllina, only if Atherinops affinis is not available. If the tentative permit continues to require the use of "most sensitive species" (Section V.A., P E-14 described above), then the language in this section must be changed to accommodate a potential change in test species.	The Regional Board staff will respond to this comment at the Regional Board meeting.

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10. Current Language in Tentative Permit (Attachment E, Section V.E., p.E-17): Accelerated Toxicity Testing and TRE/TIE Process **1.** If the results of acute toxicity monitoring are reported as “Fail" and the likely source' of toxicity is known (e.g., a temporary plant upset), then the Discharger shall conduct one additional toxicity test using the same species and test method. This test shall begin at the next storm event. If the additional toxicity test does not result in a determination of “Fail", then the Discharger may return to their regular testing frequency. The determination of the likely source of toxicity must be demonstrated by implementing the first two parts of the TRE work plan (VI.C.2.a.i. (a) and (b) of this Order. **2.** If the results of acute toxicity monitoring are reported as “Fail" and the source of toxicity is not known, then the Discharger shall conduct accelerated toxicity testing using the same species and test method. The accelerated toxicity monitoring shall include monitoring of the next 4 storm events. This testing shall begin at the next storm event. If none of' the additional toxicity tests result in a determination of “Fail", then the Discharger may return to the regular testing frequency. **3.** If one of the additional toxicity tests (in section V.E.l or V.E.2) are reported as "Fail" for acute toxicity, then, at the next storm event, the Discharger shall initiate a TRE as specified in section VI.C.2.a.ii of the Order. **4.** Any TIE conducted as a part of the TRE as specified in section VI.C.2.a of this Order shall be based on the same	The purpose of the accelerated testing is to account for some variability in storm water toxicity by allowing the Discharger to only perform a TRE/TIE when there is a long term toxicity issue instead of a one time failure. Performing a TRE/TIE every time one sample fails the toxicity test would get very expensive. In addition, USEPA supports the TRE/TIE requirements in this Order. (letter dated June 3, 2009) See US EPA Comments “C” below.

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sample that exhibited toxicity and from samples collected during subsequent storm events. Therefore, the discharger shall collect additional sample volume, sufficient for a TIE, when in an accelerated testing phase. **Navy Comment:** The Navy recommends dropping the accelerated toxicity testing and TRE/TIE process requirement. The Navy believes that the permit requirement to retest toxicity after a failure provides no benefit unless the Navy has the time and ability to implement changes identified in the TRE that may alter the likelihood of a different future result. The requirement to retest is a contradiction of the EPA's TRE guidance that identifies that testing be conducted after an alternative approach has been implemented. Retesting before implementation will provide no useful data and create undue monitoring costs.	
11. Current Language in Tentative Permit (Attachment E, Section V.F1., p.E-I7): A full laboratory report for all toxicity testing shall be submitted as an attachment to the DMR for the month in which the toxicity test was conducted and shall also include: the toxicity test results-for determination of Pass/Fail; LC50; TUa = 100/LC50; NOAEC; TUa = 100/NOAEC-reported according to the test methods manual chapter on report preparation and test review; the dates of sample collection and initiation of each toxicity test; all results for effluent parameters monitored concurrently with the toxicity test(s); and progress reports on TRE/TIE investigations. **Navy Comment:** It is recommended that references to LC50;	Regional Board staff agrees. These references will be removed.

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TUa; and NOAEC be removed as these metrics are not recorded for survival tests conducted with 100% effluent.	
12. Steam Condensate - Thermal Effluent Limitation The tentative draft order provides an effluent limitation for temperature applicable to steam condensate discharges. Immediately below Table 7 on page 21 the order states *"At no time shall any discharge be* greater *than 20°F over the natural temperature of the receiving water".* This limitation is overly conservative and unnecessary to protect San Diego Bay beneficial uses. Steam condensate discharges at Naval Base Coronado (NBC) are *"existing discharges"* as defined in the "California Thermal Plan", are exceptionally low in volume and dispersed over a wide area, and have negligible affect on the ambient receiving water temperature. The California Thermal Plan, defines *existing discharges* as *"Any discharge (a) which is presently taking place,* or *(b) for which waste discharge requirements have been established and construction commenced prior* to *adoption of this plan,* or *(c) any material change in an existing discharge for which construction has commenced prior* to *the adoption of this plan."* Steam condensate discharges at NBC are "existing discharges" that have occurred since prior to 1971, the year the California Thermal Plan was originally adopted, and are currently included as an authorized discharge in Order NO.R92003-0008 (issued on November 13, 2003). Page F-32 of the order incorrectly states that steam condensate discharges at NBC commenced	The Regional Board staff agrees with part of this comment. AGREE If a discharge existed before 1971 then the applicable water quality objective is "*Elevated temperature waste discharges shall comply with the limitations necessary to assure protection of beneficial uses*" and may not necessarily require the discharge not to be greater than 20°F over the natural temperature of the receiving water if it does not adversely affect beneficial uses. DISAGREE However, the discharger has not submitted any documentation of when the discharge existed. Therefore, the discharge is treated as a New Discharge that requires the maximum temperature of the waste discharge not exceeding the natural temperature of the receiving water by more than 20°F. The tentative Order will not be revised.

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after the Thermal Plan was adopted. The California Thermal Plan requires existing discharges into enclosed bays " ... comply with limitations necessary to assure protection of beneficial uses." Because steam condensate discharges are exceptionally low volume and dispersed over a' wide area they will not adversely affect beneficial uses.	
13. **Steam Condensate – negligible impact** The total volume of steam condensate discharges to San Diego Bay from NBC has been estimated at between 100 and 375 gallons per day from 33 discharge points or on average up to 11 gallons per day from each discharge location. The estimated discharge rate from the steam lines is 1 (one) ounce per minute. These low volume discharges (literally drips) are dispersed over a wide area and would not result in a measurable change in receiving water temperature. This conclusion is supported by a temperature modeling study performed by the Navy in 2008 at Naval Weapons Station Earle, NJ. Although not performed in San Diego Bay the study modeled steam condensate discharges nearly identical to those occurring at NBC and used conservative assumptions to ensure the results reflected the worst case scenario. The modeling predicted changes in the receiving water temperature would be negligible. A copy of the study is provided as Enclosure (8). The cost to install any type of system to either eliminate the discharges or reduce their temperature is not justified because the discharges have negligible affect on the receiving water temperature and will not adversely affect beneficial uses. Therefore, the Navy proposes the temperature limitation be removed from the tentative order and a requirement be added to	The thermal plan does not give the Regional Board the option of deciding if the temperature effects of the discharge would be negligible. If the discharge is a thermal waste or elevated temperature waste, the objective in the Order applies to the discharge.

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the Monitoring and Reporting Program (MRP) to measure the receiving water temperature to verify there are no significant changes in the ambient water temperature.	
14. Receiving Water Limitations The tentative draft order includes a receiving water limitation that should be revised to specify how compliance with the limitation is determined. Section V. Receiving Water Limitations, A. Surface Water Limitation includes the following statement *"The discharge* of *waste shall not cause* or *contribute* to *an exceedance* of *any applicable* water *quality objective* or *standard contained in applicable statewide water quality control plans, the California Toxics Rule,* or *the San Diego Basin Plan."* Although the Fact Sheet (pages F-75, attachment F) explains that monitoring in the receiving water will be used to determine compliance with receiving water limitations, the Navy requests a similar statement be added to the receiving water limitation (page 26 of the order) to ensure it is clear to the reader how compliance is determined. This is a critical issue to the Navy because a lawsuit has been filed against the Navy for alleged violations of receiving water limitations in the existing Naval Base San Diego Waste Discharge Requirements (Order No.R9-2002-0169). The receiving water limitation included in the existing NBSD order is the same limitation included in the tentative order for NBC (stated in the above paragraph). The plaintiff argues in the lawsuit that the NBSD order requires receiving water objectives and standards, including CTR, be applied at the end of the	Section V.A. Surface Water Limitations will not be changed as recommended because this would limit the ability of the Regional Board to determine compliance because monitoring in the receiving water is only one of may factors the Regional Board uses to determine permit compliance.

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discharge pipe for storm water discharges. The Navy disagrees with this interpretation and believes compliance with the receiving water limitations is determined by evaluating receiving water conditions, not by measuring pollutant concentrations at the end of the pipe. To eliminate any questions on the compliance requirements for the receiving water limitations, the Navy requests the NBC tentative order be revised to clearly state that compliance with the receiving water limitations will be determined in the receiving water. The Navy recommends the following sentence be added to the end of A. Surface Water Limitation - "Compliance with this limitation will be determined through monitoring of the receiving water (San Diego Bay and the Pacific Ocean) using appropriate methods as specified by the Regional Water Board."	
15. Monitoring and Reporting Program (MRP) The MRP requirements for discharges at NBC can be reduced and still be effective in evaluating compliance, and protecting water quality and beneficial uses. Reducing monitoring and reporting will conserve resources (staff time and funding) and allow more resources to be directed towards implementing programs to improve water quality, such as testing and implementation of additional BMPs. The Navy requests the following changes be included in the MRP. <u>Steam Condensate</u> • Reduce the sampling frequency for flow from 1/month to 1/quarter. The volume of steam condensate discharged to San Diego Bay at each discharge location is extremely small and is	The Regional Board staff will respond to this comment at the Regional Board meeting.

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dispersed over a large area. The total discharge volume per day based on 33 discharge points is estimated at 100 to 350 gallons or on average approximately 11 gallons for each discharge location. The process generating this discharge has not changed in several years so quarterly monitoring is more than adequate to determine the flow volume. Request Table E-2 be revised to require 1/quarter sampling. • Change the sampling frequency for Bis (2-ethylhexyl) Phthalate, Copper and Lead from 1/month to 1/quarter. The process generating this discharge is very consistent and the discharge volume is extremely low. The Navy has adequately characterized this discharge and provided analytical data on the priority pollutants and a list of boiler chemicals used in the steam generating process. The permit already includes a provision for the Navy to report all process changes that could affect the character of the discharge. The boiler chemicals do not contain the pollutants listed above and the only sources of these pollutants would be from potable water delivered to the installation, or the boiler or distribution piping system. Changing the sampling frequency from 1/month to 1/quarter will provide sufficient data for the Navy and Regional Water Board staff to evaluate compliance, pollutant loading to the bay, and determine if BMPs are effective. Request Table E-2 be revised to require 1/quarter sampling. • Change the sampling frequency for TCDD Equivalents from1/month to 1/quarter. The process generating this discharge is very consistent and is not expected to produce these pollutants. Changing the sampling frequency from l/month to l/quarter will provide sufficient data for the Navy and Regional	

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Water Board staff to evaluate compliance, pollutant loading to the bay, and determine if BMPs are effective. Request Table E-2 be revised to require 1/quarter sampling. Diesel Engine Cooling Water - The monthly monitoring requirements for diesel engine cooling water should be reduced to quarterly monitoring. The Navy has adequately characterized this discharge and provided analytical data on the priority pollutants. Changing the sampling frequency from l/month to l/quarter will provide sufficient data for the Navy and Regional Water Board staff to evaluate compliance, pollutant loading to the bay, and determine if BMPs are effective. Request Table E-3 be revised to require l/quarter sampling for the following parameters - Total Suspended Solids, arsenic, cadmium, chromium, copper, DDT, lead, mercury, nickel, TCDD-equivalents, zinc, and salinity. Receiving Water Monitoring - The monthly monitoring requirement for temperature .is presumably required to evaluate impacts of thermal discharges to the bay. Since monitoring of thermal discharges for temperature at NBC is required quarterly the Navy requests the receiving water temperature monitoring in Table E12 be changed to 1/quarter to coincide with discharge effluent monitoring. Self Monitoring Reports - The MRP requires the monthly submittal of self monitoring reports. Reducing this reporting frequency from monthly to quarterly will conserve resources (staff time and funding) and allow more resources to be directed towards implementing programs to improve water quality, such as testing and implementation of additional BMPs, rather than	

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on report writing. This will also reduce the work load for Regional Water Board staff by reducing the number of reports requiring review. Quarterly self monitoring reports will provide the identical data as submitted in monthly reports for use in evaluating compliance and potential impacts to beneficial uses. Because the order already includes a "Standard Provision" (page 30) requiring the Navy to notify the Regional Water Board within 24 hours of violating any condition of the order, including effluent limitations, the change from monthly to quarterly will not affect prompt notification for any violations of the order.	
16. TCDD Equivalents The SIP on pages 28 and 29, Enclosure (9), only requires 2,3,7,8-tetrachlorodibenzo-p-dioxon (2,3,7,8-TCDD) be 'evaluated to determine if Water Quality Based Effluent Limitations (WQBELs) are required and not other TCDD congeners. The SIP requires monitoring for other TCDD congeners with the stated purpose of assessing the presence and amounts of congeners discharged so that future multi-media control strategies can be developed. In addition, WQBELs were inappropriately established for all TCDD equivalents using the California Toxics Rule (CTR) criteria established for 2,3,7,8-TCDD. Table F-6 on page F-43 of the fact sheet incorrectly lists the 2,3,7,8-TCDD CTR criteria as the criteria for all TCDD equivalents. This resulted in a final WQBEL that is overly conservative for TCDD equivalents and not based on the actual toxicity of the pollutant. Other factors that argue against effluent limits for TCDD equivalents include laboratory uncertainty at the very low detection limits required by the permit and the	The Regional Board staff will respond to this comment at the Regional Board meeting.

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possibility that sources of the congeners may not be under the direct control of the discharger (i.e. atmospheric deposition, intake water). For these reasons we request the reasonable potential analysis (RPA) and WQBEL (if required) be limited to 2,3,7,8-TCDD. The effluent limitation for TCDD equivalents should be deleted from the order. The Navy also request that the RPA be reaccomplished and the Summary of RPA Results (Table F-8) and any other applicable sections of the order be updated.	
17. Case by Case Exceptions In a 9 April 2009 letter, Enclosure (10), to Mr. John Robertus the Navy requested "Case by Case" exceptions from SIP provisions for several discharges at San Diego area Navy installations with negligible potential impact to beneficial uses and that are in support of the public interest. Marine mammal enclosure cleaning is a discharge at NBC that was included in the April letter. The Navy requests support from the SDRWQCB in obtaining approval for the exception from State Water Resources Control Board. In addition, the Navy requests monitoring and effluent limitations included in the NBC Order be delayed pending the outcome of the exception request.	Regional Board staff agrees that it is unlikely that the discharges from Mammal Enclosure Cleaning would result in the lowering of water quality, or impact beneficial uses in San Diego Bay if only potable water is used. Based on information obtained during a June 4, 2009, inspection, mammal enclosure cleaning is the use of potable water to rinse bird guano from the piers surrounding the mammal enclosures on approximately a weekly basis. The application for the NPDES Permit renewal says that high pressure heated water will be used. Because it is not clear what the cleaning process entails and if the mammal enclosure cleaning is likely to affect water quality, the monitoring and effluent limitations for the Mammal Enclosure Cleaning will be implemented pending the outcome of the exception request.

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18. Dilution Credits Dilution credits should be applied when calculating Water Quality Based Effluent Limits (WQBELs). The SIP (page 15) allows the use of dilution credits when calculating WQBELs. Dilution credits are appropriate for the listed Navy discharges because the discharges are relatively low in volume and total pollutant loading will not cause or contribute to a water quality criteria/objective exceedance, and will not adversely impact designated beneficial uses. The Navy, therefore, requests dilution credits be applied when calculating WQBELs for discharges at NBC. If dilution credits are allowed, the Navy will provide appropriate data, as required by your staff, to determine applicable dilution credits for each discharge.	The Fact Sheet, section IV.C.2.c. states "The Discharger has not submitted information regarding available dilution for the discharges from the Facility. Thus, the worst-case dilution is assumed to be zero to provide protection for the receiving water beneficial uses. The impact of assuming zero assimilative capacity within the receiving water is that discharge limitations are applied end-of-pipe with no allowance for dilution within the receiving water."
19. Editorial Revisions • Page F-4, Table F-l - Remove Robert Chichester for Authorized Person to Sign and Submit Reports and replace with Brian Gordon, Water Program Manager, (619) 532-2273. • Page 19, F. section VI.C.3.c. does not appear to be correct citation. • Footnote on page 20 - High risk definition in footnote should be revised to match definition included in Attachment A of the order. • Outfall 55 (NAS-038) is no longer considered industrial and no longer subject to sampling and observation; it should no longer by identified as industrial in the permit. • Outfall 50 (NAB-038) is no longer considered industrial and no longer subject to sampling and observation; it should no longer be identified as industrial in the permit.	• Mr. Gordon will be added and Mr. Chichester will be deleted. • Discharge Prohibition III.F will be changed to read "Except as allowed in ~~section VI.C.3.c~~Attachment G of this Order [Storm Water Pollution Prevention Plan (SWPPP) requirements], non-storm water discharges that discharge either directly or indirectly to waters of the United States are prohibited. Prohibited non-storm water discharges must be either eliminated or permitted by a separate NPDES permit." • The definition on Page 20 will be used in Attachment A so that both definitions are the same.

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COMMENTS	***REGIONAL BOARD RESPONSES***
• NOLF - Outfall OLF5 is currently considered industrial and should be added to the permit. The coordinates of OLF5 are 32°, 33°, 53° N, 117° 6' 14".	• Outfall 55 (NAS-038) and Outfall 50 (NAB-038) will be deleted as an industrial storm water discharge location in Table F-2 of the Fact Sheet, Effluent Limitation IV.A.5, Table E-1, and Storm Water Monitoring Requirements IX.A.3.c. • NOLF – Outfall OLF5 will be added to Table F-2 of the Fact Sheet, Effluent Limitation IV.A.5, Table E-1, and Storm Water Monitoring Requirements IX.A.3.c.

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B. Comments submitted by Cory J. Briggs, Briggs Law Corporation on June 2, 2009

COMMENTS	***REGIONAL BOARD RESPONSES***
Recital No. 1 I wanted to let you know that I have some concerns about Tentative Order no. R9-2009-0081, which the Regional Board will consider next week, and ask that you take appropriate steps to address my concerns. As you know, last year I submitted a couple of comments on proposed permit no. R9-2008-0049. You responded by indicating that my comments would be incorporated into that proposed permit. Attached to this message is a copy of the document in which you acknowledged that my comments would be incorporated into that permit. (My comments and your response appear on pages 3 and 4 of the attachment.) I have the same concerns with regard to Tentative Order no. R9-2009-0081. Accordingly, I ask that Tentative Order no. R9-2009-0081 be modified to address my concerns, as was done for proposed permit no. R9-2008-0049. I also ask that you include this e-mail and the attachment in the administrative record for Tentative Order no. R9-2009-0081 because I will be unable to attend next week's meeting and submit these materials myself.	The Regional Board staff had already addressed this comment in the Underline/Strikeout Tentative Order R9-2009-0081. Mr. Briggs was contacted and Mr. Briggs agreed that his concerns had indeed already been addressed in the Underline/Strikeout Tentative Order R9-2009-0081. However, in the errata, the text has been modified to be more accurate. The spirit of the text has not been changed.

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C. Comments submitted by Doug Eberhardt, US Environmental Protection Agency on June 3, 2009

COMMENTS	***REGIONAL BOARD RESPONSES***
Recital No. 1 We have reviewed the subject revised draft National Pollutant Discharge Elimination System (NPDES) permits for BAE Systems San Diego Ship Repair, Inc. and the U.S. Department of the Navy, Naval Base Coronado. Our review and comments are limited to the subject of toxicity requirements. We wish to acknowledge the considerable progress made in development of NPDES permit limits and conditions which address our interest in proper implementation of acute toxicity requirements specified in California Basin Plans and other applicable State-wide plans and policies.	Comment noted.
Recital No. 2 Nearly a year ago, in June 2008, we discussed with your staff our support for reissuance of the draft Continental Maritime permit which now contains an acute toxicity effluent limit, associated monitoring requirements, and other conditions for the discharge of industrial stormwater. At that time, we recommended to your staff the use of "Pass or Fail" units of expression for limiting and reporting acute toxicity; the renewal of 96-hour acute toxicity tests at 48-hours using the original effluent sample (due to the short duration of some storm events); and the limited use of East Coast marine species for acute toxicity testing when West Coast marine species are available. We appreciate that these two proposed permits (BAE Systems and Navy Base Coronado) contain acute toxicity provisions consistent with those adopted in the Continental Maritime permit.	Comment noted.

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COMMENTS	***REGIONAL BOARD RESPONSES***
Recital No. 3 EPA continues to strongly support the San Diego Regional Water Board's approach for expressing acute toxicity effluent limits and the compliance determination language and supporting conditions as proposed in the subject draft revised permits. Together, these requirements are fully consistent with the Clean Water Act (CWA), NPDES regulations requiring effluent limits, the Basin Plan and applicable State-wide plan and policy requirements for acute toxicity. Furthermore, the proposed requirements follow EPA Regions' 9 and 10 May, 1996 guidance document and November, 2007 technical training tool document on the topic of whole effluent toxicity implementation in NPDES permits, and EPA's October, 2002 "Short-term Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms." We continue to view the proposed requirements as model acute toxicity language for industrial stormwater discharges.	Comment noted.
Recital No. 4 We strongly advocate this approach for acute toxicity in these permits for the following reasons. The proposed effluent limit, compliance determination language, and implementation provisions for acute toxicity are legally sound, technically correct, clearly stated, and implementable. The proposed effluent limit, in combination with conditions for: (1) accelerated monitoring when elevated levels of acute toxicity are reported in the effluent and (2) appropriate TRE/TIE conditions which direct the permittee to identify and correct the causes of toxicity when elevated levels of acute toxicity are repeatedly reported, meet EPA's expectations for acute toxicity implementation in NPDES permits for industrial stormwater in California.	Comment noted.

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COMMENTS	***REGIONAL BOARD RESPONSES***
Recital No. 5 We have reviewed the May 27, 2009 letter from the Navy criticizing the proposed acute toxicity requirements. This letter refers to the Navy's 2006 comprehensive study of stormwater toxicity. While EPA appreciates the Navy's work on this study, and believes that the collected data are valuable, EPA does not agree with the all of the conclusions reached by the Navy based on these data. For example, the Navy's conclusion that there was less than 1% observed toxicity is based on statistical methods which are inconsistent with EPA's whole effluent toxicity methods manuals. The Navy's testing approach appears to be biased toward not finding toxicity in situations where a test shows significantly reduced survival relative to control samples. We also disagree that the proposed permits are somehow inconsistent with EPA's March, 1991 "Technical Support Document for Water Quality-based Toxics Control", as implied by the Navy's May 27, 2009 letter. We'd like to reiterate that the proposed permits' provisions on acute toxicity are consistent with current EPA policies and regulations.	Comment noted.
Recital No. 6 We note that the BAE Systems permit contains chronic toxicity monitoring requirements. It is not clear why these same chronic toxicity monitoring requirements are not included in the Naval Base	The Regional Board staff agrees with the comment. The requirements are carried over from the existing permit, Order No. R9-2002-0161. For Naval Base Coronado, the existing permit, Order No. R9-2003-0008 did not have these requirements. However, the tentative order for Naval Base Coronado will be modified because the non-storm water discharges for both

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COMMENTS	***REGIONAL BOARD RESPONSES***
Coronado permit and, based our review, we would recommend their addition to the Navy's permit.	facilities are similar. The tentative order will be modified as recommended.
Recital No. 7 Also, we have reviewed the fact sheet for the proposed BAE Systems permit, and do not agree with the rationale provided for not including chronic toxicity limits. Following 40 CFR 122.44(d)(1), it is our view that when a discharge presents the reasonable potential for exceeding Water Quality Standards, effluent limits for such a discharge need to be established.	This comment does not apply to this tentative order. It applies to tentative Order No. R9-2009-0080.
Recital No. 8 We recommend that these permits be adopted, with the revised acute toxicity requirements proposed by Regional Water Board staff. If you have questions regarding this correspondence, please contact Robyn Stuber, of our NPDES Permits Office, at 415/972-3524.	Comment noted.