

California Regional Water Quality Control Board, San Diego Region

October 26, 2015

In reply refer to:
T10000006999:smcclain

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Subject: Investigative Order No. R9-2015-0058

Enclosed is a copy of Investigative Order No. R9-2015-0058, *An Order Directing The California Department of Transportation, The City of La Mesa, The City of Lemon Grove, The City of San Diego, The National Steel and Shipbuilding Company, The San Diego Unified Port District, and The U.S. Navy to Submit Technical Reports Pertaining to an Investigation of Sediment Quality in the Mouth of Chollas Creek in San Diego Bay, San Diego, California.*

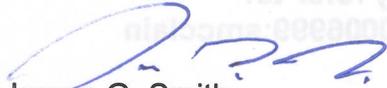
In developing the Investigative Order, the San Diego Water Board took into account comments from the named parties and the public. Those comments and the San Diego Water Board's responses are summarized in Attachment 1. All parties to the Order should be aware that additional information may be submitted throughout the work plan process that could result in modification of the Order, or future enforcement orders, beyond the scope of the Investigative Order as issued.

Messrs. Savage, Kuhn Tamimi, Sinfield, - 2 -
Chee, Brown, and Ms. Kolb

October 26, 2015

In the subject line of any response, please include the reference code:
T10000002687:smcclain. For questions or comments, please contact Sean McClain by phone
at (619) 521-3374 or by email to smcclain@waterboards.ca.gov.

Sincerely,



James G. Smith
Assistant Executive Officer

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Tech Staff Info & Use	
GeoTracker Site ID	T10000006999

Enclosed is a copy of Investigative Order No. R2-2015-0058, An Order Directing The California Department of Transportation, The City of La Mesa, The City of Lemon Grove, The City of San Diego, The National Steel and Shipbuilding Company, The San Diego Unified Port District, and The U.S. Navy to Submit Technical Reports Pertaining to an Investigation of Sediment Quality in the Mouth of Chollas Creek in San Diego Bay, San Diego, California.

In developing the Investigative Order, the San Diego Water Board took into account comments from the named parties and the public. Those comments and the San Diego Water Board's responses are summarized in Attachment I. All parties to the Order should be aware that additional information may be submitted throughout the work plan process that could result in modification of the Order, or future enforcement orders, beyond the scope of the Investigative Order as issued.

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

INVESTIGATIVE ORDER NO. R9-2015-0058

**AN ORDER DIRECTING THE CALIFORNIA DEPARTMENT OF TRANSPORTATION,
THE CITY OF LA MESA, THE CITY OF LEMON GROVE, THE CITY OF SAN DIEGO,
THE NATIONAL STEEL AND SHIPBUILDING COMPANY, THE SAN DIEGO
UNIFIED PORT DISTRICT, AND THE U.S. NAVY TO SUBMIT TECHNICAL
REPORTS PERTAINING TO AN INVESTIGATION OF SEDIMENT
QUALITY IN THE MOUTH OF CHOLLAS CREEK, SAN DIEGO
BAY, SAN DIEGO COUNTY, CALIFORNIA**

The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) finds that:

1. **Legal and Regulatory Authority.** This Order conforms to and implements policies and requirements of the Porter-Cologne Water Quality Control Act (division 7, commencing with Water Code section 13000) including (1) sections 13267 and 13304; (2) applicable State and federal regulations; (3) all applicable provisions of statewide Water Quality Control Plans adopted by the State Water Resources Control Board (State Water Board) and the *Water Quality Control Plan for the San Diego Basin* (Basin Plan) adopted by the San Diego Water Board including beneficial uses, water quality objectives, and implementation plans; (4) State Water Board policies and regulations including Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*, Resolution No. 88-63, *Sources of Drinking Water*, Resolution No. 92-49, *Policies and Procedures for Investigation, and Cleanup and Abatement of Discharges under Water Code Section 13304*; the *Water Quality Control Plan for Enclosed Bays and Estuaries - Part 1 Sediment Quality*; California Code of Regulations (CCR) title 23, chapter 16, article 11; CCR title 23, section 3890 et. seq.; and (5) relevant standards, criteria, and advisories adopted by other State and federal agencies.

2. **Geographical Extent of the Mouth of Chollas Creek Investigation.** The Mouth of Chollas Creek is bounded on the east by the weir located downstream of the Belt Street Bridge, on the north by the National Steel and Shipbuilding Company (NASSCO), and to the south by Naval Base San Diego Pier 1, extending to the end of the piers (Figure 1). The area is approximately 25 acres (0.1 km²).



Figure 1. Investigation Area for the Mouth of Chollas Creek and Chollas Creek Tidally-Influenced Area.

3. **Chollas Creek Tidally-Influenced Area.** A small portion of the watershed includes “tidelands” located immediately adjacent to San Diego Bay under the jurisdiction of the San Diego Unified Port District (Port District) and the U.S. Navy (Naval Base San Diego). The Chollas Creek Tidally-Influenced Area extends from the weir located at the Mouth of Chollas Creek up to the confluence area near the north and south Chollas Creek channels (Figure 1). The Chollas Creek Tidally-Influenced Area receives storm water from the upland watershed via creek drainage, storm water discharge from the neighboring facilities, and tidal influence from San Diego Bay.
4. **Chollas Creek and Chollas Creek Watershed.** Chollas Creek is an urban creek with the highest flow rates associated with storm events, and highly variable flows for the rest of the year. Extended periods with no surface flows occur during dry weather, although pools of standing water may be present. The Mouth of Chollas Creek has been channelized and concrete lined, but some sections of earthen creek bed remain. The lowest 1.2 miles of the Creek are on the 303(d) List of Water Quality Limited Segments for water quality impairments for indicator bacteria, copper, lead, and zinc.

The Chollas Creek watershed encompasses approximately 69 km² (17,200 acres) of the Pueblo San Diego Hydrologic Unit located within the cities of San Diego, Lemon Grove, and La Mesa (Figure 2). Land use within the Chollas Creek watershed is predominantly residential with some commercial and military uses. Roadways dominate a significant portion of the remaining watershed area.

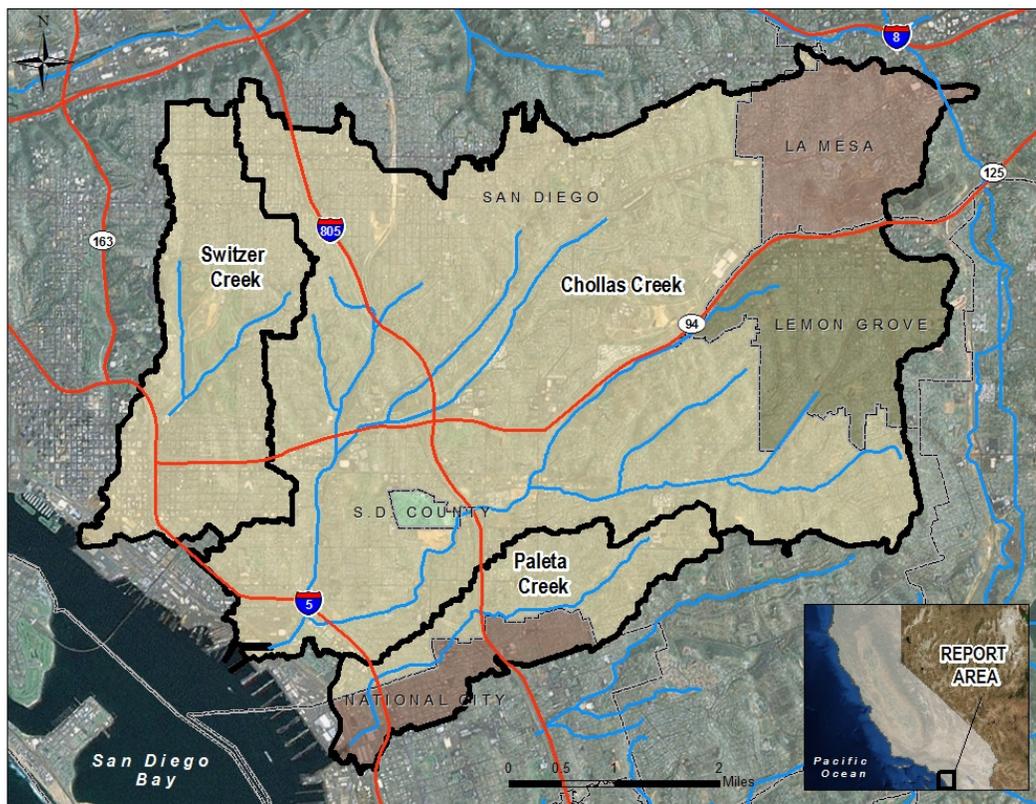


Figure 2. Location of San Diego Bay, Paleta Creek, Chollas Creek, and Switzer Creek watersheds.

5. **Mouth of Chollas Creek Impairment.** The Mouth of Chollas Creek is on the Clean Water Act section 303(d) list for benthic community degradation and toxicity in the sediment. The Mouth of Chollas Creek is designated as a candidate toxic hot spot in the Regional Toxic Hot Spot Cleanup Plan under the Bay Protection and Toxic Cleanup Program (BPTCP).¹
6. **Identification of Pollutant Sources.** Prior to, or concurrent with, any cleanup of contaminated sediment in the Mouth of Chollas Creek, sources of pollution to this area must be identified and controlled. Multiple point and nonpoint sources discharge pollutant loads into the Mouth of Chollas Creek. Point sources typically discharge at a specific location from pipes, outfalls, and conveyance

¹ State Water Resources Control Board, September 1996. Chemistry, Toxicity and Benthic Community Conditions in Sediments of the San Diego Bay Region.

channels. These discharges are regulated by the San Diego Water Board or State Water Board through Waste Discharge Requirements (WDRs) that implement federal National Pollutant Discharge Elimination System (NPDES) requirements. Nonpoint sources are diffuse in nature, such as sheet flow or atmospheric deposition (precipitation and dust fall) that have multiple routes of entry into surface waters.

Storm water runoff from urbanized areas flows off land with a number of different uses, including residential uses, commercial and industrial uses, and roads, highways, and bridges. Sources of pollutants can include storm drain discharges, discharges or spills from permitted industrial facilities, illicit discharges, sewage spills, or other nonpoint sources. Essentially, all sources (point and nonpoint) in the watershed enter the Mouth of Chollas Creek through the storm water conveyance systems that are regulated through the NPDES permits listed in Table 1.

Table 1. Regulated Storm Water Discharges in Chollas Creek Watershed.

WDR/Permit	Order No.
San Diego Municipal Storm Water NPDES Permit	R9-2013-0001
NPDES Storm Water from Small MS4s	2013-0001-DWQ
NPDES Industrial Storm Water	2014-0057-DWQ
NPDES Construction Storm Water	2009-0009-DWQ
NPDES Storm Water from Caltrans	2012-0011-DWQ

Other likely point and nonpoint source pollutant loads include storm water runoff from adjacent industrial discharges from NASSCO² and Naval Base San Diego³, sediment resuspension and flux, leaching from creosote pier pilings, and direct atmospheric deposition of pollutants to the surface of the water body. Another cause is sediment resuspension and migration from boat and ship traffic near the Mouth of Chollas Creek.

While wasteloads of polycyclic aromatic hydrocarbons (PAHs) are associated with ongoing activities, such as automobile and truck emissions in the watershed, the wasteloads of chlordane and polychlorinated biphenyls (PCBs) reflect residues accumulated from historical uses, applications, or spills that contaminated soils within the watershed and act as ongoing sources.

- 7. Presence of Wastes in the Mouth of Chollas Creek.** The Mouth of Chollas Creek receives discharges from the municipal separate storm sewer systems (MS4s) of the City of Lemon Grove, the City of La Mesa, the City of San Diego, and the Port District. The Mouth of Chollas Creek also receives storm water runoff discharges from the California Department of Transportation (Caltrans), NASSCO, U.S. Navy and various industrial facilities along Chollas Creek. During

² RWQCB, 2009, Waste Discharge Requirements No. R9-2009-0099.

³ RWQCB 2013, Waste Discharge Requirements No. R9-2013-0064.

wet weather events, storm water discharges from lands with various uses provide a significant mechanism for transport of organic pollutants to surface water bodies. Pollutants from various land uses and associated management practices wash off the surface during rainfall events. The amount of runoff and associated pollutant concentrations are, therefore, highly dependent on the nearby land uses and management practices.

The following sources of pollutants are discharged to the MS4s conveyance system:

- a. PAHs from roadways, parking surfaces, and creosote telephone/utility poles throughout the cities may enter the storm water conveyance system;
- b. Pesticide impacted soils may enter the storm water conveyance system; and
- c. PCB impacted soils may enter the storm water conveyance system.

Additionally, sediments that accumulate within storm drains and creeks during dry periods are a source of pollutants to the Mouth of Chollas Creek during wet weather events.

Furthermore, the Mouth of Chollas Creek is tidally-influenced; therefore, various pollutants from San Diego Bay may also be transported during tidal actions into the Mouth of Chollas Creek. Finally, another pollutant source to the Mouth of Chollas Creek may be from air deposition.

8. **Beneficial Uses and Target Receptors.** Water quality objectives must support the most sensitive beneficial uses of a water body. Beneficial uses of Chollas Creek are described in the Basin Plan. Beneficial uses of San Diego Bay are described in the Basin Plan and Bays and Estuaries Plan.⁴ Chollas Creek is located within the Lindbergh Hydrologic Subarea (908.21) in the San Diego Mesa Hydrologic Area (908.20) of the Pueblo San Diego Hydrologic Unit (908.00). Table 2 lists the beneficial uses along with its target receptors for Chollas Creek and San Diego Bay.

Table 2. Beneficial Uses and Target Receptors

Beneficial Use	Chollas Creek	San Diego Bay
Non-contact water recreation	•	•
Commercial and sport fishing		•
Preservation of biological habitats of special significance		•
Estuarine habitat		•

⁴ Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality, State Water Resources Control Plan, August 2009.

Beneficial Use	Chollas Creek	San Diego Bay
Warm freshwater habitat	•	
Wildlife habitat	•	•
Rare, threatened, or endangered species		•
Marine habitat		•
Migration of aquatic organisms		•
Spawning, reproduction, and/or early development		•

• Existing Beneficial Use

Pollutants discharged from point and non-point sources to bay sediments could impact these beneficial uses.

9. **Caltrans.** Polluted storm water runoff from Caltrans' owned and/or operated roadways and facilities has been, and continues to be, discharged directly and indirectly into Chollas Creek. These discharges cause, and threaten to cause, a condition of pollution by unreasonably affecting the waters for beneficial uses. Roadway and pavement runoff from Caltrans highways and facilities contains organic and inorganic pollutants that can impair receiving water quality and disrupt aquatic and benthic ecosystems. Storm water discharges from roadways may contain pollutants, including suspended solids, heavy metals, hydrocarbons, indicator bacteria and pathogens, nutrients, herbicides, and deicing salts (Grant et al. 2003⁵). In recent years, Caltrans has reported measureable amounts of pesticides in storm water discharges, primarily the herbicides diuron and glyphosate; the active ingredient in Roundup® (Caltrans 2003a⁶, 2003b⁷). The principal sources of pollutants from roadways are atmospheric deposition, automobiles, and the road surfaces themselves (Grant et al. 2003).
10. **Municipal Storm Water Copermittees.** The Cities of La Mesa, Lemon Grove, and San Diego, and the Port District own and/or operate MS4s that discharge storm water runoff directly into Chollas Creek. These pollutant discharges are regulated by the San Diego Water Board through Order No. R9-2013-0001, WDRs that implement federal NPDES requirements. These discharges cause, and threaten to cause, a condition of pollution by unreasonably affecting the waters for beneficial uses.

⁵ Grant, S.B., N.V. Rekhi, N.R. Pise, R.L. Reeves, M. Matsumoto, A. Wistrom, L. Moussa, S. Bay, and M. Kayhanian. 2003. A Review of the Contaminants and Toxicity Associated with Particles in Stormwater Runoff. CTSW-RT-03-059.73.15. Prepared for California Department of Transportation, Sacramento, CA. August 2003.

⁶ Caltrans. 2003a. 2002 – 2003 Annual Data Summary Report. CTSW-RT-03-069.51.42. California Department of Transportation, Storm Water Monitoring & Data Management. August 2003.

⁷ Caltrans. 2003b. Discharge Characterization Study Report. CTSW-RT-03-065.51.42. California Department of Transportation, Storm Water Monitoring & Data Management. November 2003.

11. **The San Diego Unified Port District.** The Port District has responsibility, authority, and/or control for operation of the storm water system within the tideland area under the MS4 permit. However, in this particular matter, the Port District has not exercised requisite control or authority over its lessees' properties or MS4 facilities/outfalls to be named primarily responsible for this Investigative Order. Therefore, it is being named as a secondarily responsible party, however it is still a Discharger under this Investigative Order. To the extent that the primarily responsible parties provide additional information or evidence that indicates that the Port District did exert authority over facilities/outfalls or lessees' properties, or should have and failed to, this Order and future enforcement actions can be amended.

12. **National Steel and Shipbuilding Company.** Polluted storm water discharges or formerly discharged from NASSCO directly and indirectly into Chollas Creek. These discharges cause, and threaten to cause, a condition of pollution by unreasonably affecting the waters for beneficial uses. Historically, some pollutants were discharged directly into Chollas Creek and San Diego Bay. NASSCO owns and operates a full service ship construction, modification, repair, and maintenance facility on the waterfront of San Diego Bay and west of the Mouth of Chollas Creek. The facility is located on land leased from the U.S. Navy and the Port District at 28th Street and Harbor Drive within the City of San Diego. The U.S. Navy and NASSCO's primary business has historically been ship repair, construction, and maintenance for the U.S. Navy and commercial customers. The facility includes offices, shops, warehouses, concrete platens for steel fabrication, a floating dry dock, a graving dock, two shipbuilding ways, and five piers, which provide 12 berthing spaces (RWQCB, 2001⁸).

There are three major types of building/repair facilities at NASSCO, which, together with cranes, enable ships to be assembled, launched, or repaired. These facilities include a floating dry-dock, a graving dock, and berths/piers. With the exception of berths and piers, the basic purpose of each facility is to separate a vessel from the bay to provide access to parts of the ship normally underwater. The berths and piers are over-water structures where vessels are secured during repair or construction activities. Because dry-dock space is limited and expensive, many operations are conducted at pier side. For example, after painting the parts of a ship normally underwater, the ship is moved from the dry-dock to a berth where the remainder of the painting is completed.

NASSCO initiated the capture of first-flush storm water from high-risk areas (dry-dock, graving dock, paint and blasting areas) in the early 1990s. Capture of first-flush storm water extends to additional areas of the facility in 1997. Prior to the early 1990s, all surface water runoff from NASSCO discharged directly into San

⁸ RWQCB. 2001. Final Regional Board Report: Shipyard Sediment Cleanup Levels, NASSCO & Southwest Marine Shipyards, San Diego Bay. California Regional Water Quality Control Board, San Diego Region, San Diego, CA. February 16, 2001.

Diego Bay (Exponent, 2003⁹). Currently, NASSCO discharges storm water from employee parking lots into Chollas Creek, which contain oil, grease, and PAHs that deposit on parking lot surfaces by motor vehicles.

Categories of wastes commonly generated by NASSCO's industrial processes include the following (RWQCB, 2012¹⁰):

Abrasive Blast Waste: Abrasive blast waste, consisting of spent grit, spent paint, marine organisms, and rust is generated in significant quantities during all dry or wet abrasive blasting procedures. The constituent of greatest concern, with regard to toxicity, is the spent paint; particularly the copper and tributyltin antifouling components, which are designed to be toxic and to continuously leach into the water. Other pollutants in paints include zinc, chromium, and lead. Abrasive blast waste can be conveyed by water flows, become airborne (especially during dry blasting), or fall directly onto receiving waters.

Blast Wastewater: Hydroblasting generates large quantities of wastewater which includes suspended and settleable solids (spent abrasive, paint, rust, marine organisms, and water). Blast wastewater also contains rust inhibitors, such as diammonium phosphate and sodium nitrite.

Bilge Waste/Other Oily Wastewater: This waste is generated during tank emptying, leaks, and cleaning operations (bilge, ballast, and fuel tanks). In addition to petroleum products (fuel, oil), washwater is generated in large quantities and contains detergents or cleaners.

Oils (engine, cutting, and hydraulic): In addition to spent products, spills and leaks of fresh oils, lubricants, and fuels may occur from ships or dry-docks equipment, machinery, and tanks (especially during cleaning and refueling).

Fresh Paint: Paint can be discharged due to spills, drips, and overspray.

Waste Paints/Sludges/Solvents/Thinners: These wastes are generated from cleaning and maintenance of paint equipment.

Construction/Repair Solid Wastes: These wastes include scrap metal, welding rods, slag (from arc welding), wood, rags, plastics, cans, paper, bottles, and packaging materials.

Miscellaneous Wastes: These wastes include lubricants, grease, fuels, sewage

⁹ Exponent. 2003. NASSCO and Southwest Marine Detailed Sediment Investigation Volumes I - III. Prepared for NASSCO and Southwest Marine, San Diego, CA. Exponent, Bellevue, WA. October 2003.

¹⁰ RWQCB. 2012. Technical Report for Tentative Cleanup and Abatement Order No. R9-2012-0024 for the Shipyard Sediment Site, San Diego Bay, San Diego, CA – Volumes I, II, and III. California Regional Water Quality Control Board, San Diego Region. San Diego, CA. March 14, 2012. Available at: http://www.waterboards.ca.gov/sandiego/water_issues/programs/shipyards_sediment/index.shtml

(black and gray water from vessels or docks), boiler blowdown, condensate discard, acid wastes, caustic wastes, and aqueous wastes (with and without metals).

13. **U.S. Navy.** Polluted storm water discharges from U.S. Navy property directly and indirectly into Chollas Creek.¹¹ These discharges cause, and threaten to cause, a condition of pollution by unreasonably affecting the waters for beneficial uses. Historically, some pollutants discharged directly into Chollas Creek and San Diego Bay. Since 1921, the U.S. Navy has owned and operated Naval Base San Diego, located at 32nd Street and Harbor Drive on the eastern edge of San Diego Bay. The facility is bordered by the City of San Diego to the north and east, National City to the south and east, and San Diego Bay to the west. The U.S. Navy leases a small portion of land to NASSCO located on the northern boundary of the Mouth of Chollas Creek.

Historically, Naval Base San Diego served as a docking and fleet repair base. In the 1920s and 1930s, it was primarily used for the repair and maintenance of U.S. Navy Destroyer vessels. The base expanded during the late 1930s to the late 1940s. From 1943 to 1945, more than 5,000 ships were sent to the base for conversion, overhaul, battle damage repair, and maintenance; approximately 2,190 of these ships were dry-docked. The base was expanded in 1944 to include approximately 823 acres, over 200 buildings, a 1,700 ton marine railway, a cruiser graving dry-dock, 5 large repair piers, a quay wall totaling 28,000 feet of berthing space, and extensive industrial repair facilities. Naval Base San Diego remains in operation and is currently homeport for approximately 60 naval vessels and home base to 50 separate commands.

In 1998, the U.S. Navy dredged a small portion of the Mouth of Chollas Creek. Despite the dredging action, impacts at the Mouth remained, as evidenced by elevated chemistry and toxicity results from the summer of 2001.¹² The U. S. Navy has proposed to perform another maintenance dredging event in a small portion of the Mouth of Chollas Creek in 2016.

14. **Persons Responsible for the Discharge of Waste.** The City of Lemon Grove, the City of La Mesa, the City of San Diego, Caltrans, the Port District, the U.S. Navy, and NASSCO (collectively Dischargers) are responsible entities for discharges of wastes to sediment in the Mouth of Chollas Creek. As described in Findings 3 through 13, various waste constituents originated at facilities owned and/or operated by these entities are discharged to the Mouth of Chollas Creek

¹¹ U.S. Navy, *2013/2014 Storm Water Annual Report for Industrial High Risk, Industrial Low Risk, and Small MS4 Areas, Order No. R9-2013-0064, NPDES Permit No. CA0109169*, Naval Base San Diego, California, August 2014.

¹² Southern California Coastal Water Research Project (SCCWRP) and Space and Naval Warfare Systems Center (SPAWAR). 2005. *Sediment Assessment Study for the Mouths of Chollas and Paleta Creek, San Diego, Phase I Report*. Prepared by SCCWRP, Westminster, CA and SPAWAR, San Diego, CA for the San Water Board and Commander Navy Region Southwest, San Diego, CA.

where they cause, or threaten to cause, a condition of pollution or nuisance. Through the course of the investigation, additional information may become available that identifies additional potential dischargers or warrants naming additional persons as dischargers. The San Diego Water Board reserves and retains the right to name additional persons. The above descriptions of activities, actual, threatened or potential discharges, and/or actions giving rise to potential liability under Water Code Section 13304 are not intended to be weighted for allocation purposes. The water boards do not generally allocate liability between parties, and there is not a de minimis defense or exception under Water Code section 13304.

15. **Public Comments.** This Investigative Order is being issued after several stakeholder meetings and review of public comments submitted. It is accompanied by a "Response to Comments" document prepared by San Diego Water Board staff (Attachment 1).
16. **Condition of Pollution.** The concentrations of contaminants in the sediments of the Mouth of Chollas Creek are at levels that may have an impact on human health, wildlife, and the benthic community. The elevated concentrations may not be protective for human health, wildlife, and the benthic community thus, creating a condition of pollution and nuisance in waters of the State.
17. **Basis for Requiring Reports.** Water Code section 13267 provides that the San Diego Water Board may require dischargers, past dischargers, or suspected dischargers to furnish those technical or monitoring reports as the San Diego Water Board may specify provided that the burden, including costs, of these reports bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. Coordination among the responsible persons of the sediment investigation(s) is expected to provide a more comprehensive evaluation and be more cost-effective.
18. **Need for and Benefit of Technical Reports.** Technical reports will provide information to the San Diego Water Board regarding the nature and extent of the discharges. The San Diego Water Board intends to use this information to determine if additional assessment and/or cleanup and abatement activities are warranted at the Mouth of Chollas Creek. Specifically, the reports will enable the San Diego Water Board to ascertain the extent and chemical concentrations of waste constituents in sediment that may pose a threat to the benthic community, human health, and/or wildlife. The Dischargers currently discharge pollutants into the Mouth of Chollas Creek, and/or have historically done so. Dischargers' cooperative reporting efforts may result in a cost reduction. Based on the nature and possible consequences of the discharges (as described in the Findings above) the burden of providing the required reports, including the costs, bears a reasonable relationship to the need for the reports, and the benefits to be obtained from the reports.

19. **Study Questions.** An investigation of the sediment quality for the Mouth of Chollas Creek and Chollas Creek Tidally-Influenced Area is needed to answer the following study questions:
- a. **Nature and Extent.** What is the current nature and extent of impairment related to contaminated sediment conditions in the Mouth of Chollas Creek and the Chollas Creek Tidally-Influenced Area?
 1. If existing data are not sufficient to understand current nature and extent of impairment (i.e., a data gap exists), what sampling strategy is needed to fill that gap?
 2. What activities are needed to identify the data to characterize the nature and extent of impairment in the areas discussed above?
 - b. **Potential Sources.** What are the potential sources of the impairment in the Mouth of Chollas Creek and the Chollas Creek Tidally-Influenced Area?
 1. If existing data are not sufficient to understand potential sources of the impairment, what sampling strategy is needed to fill that gap?
 2. What activities are needed to identify the data to characterize the potential sources of impairment in areas discussed above?
 - c. **Pathways and Contaminant Transport.** If impairment and ongoing sources are identified, what are the pathways for contaminant transport to and within the Mouth of Chollas Creek and the Chollas Creek Tidally-Influenced Area?
 1. If existing data are not sufficient to understand the transport of potential source contaminants, develop a sampling strategy to fill that gap.
 2. What activities are needed to identify the data to characterize the transport of potential source contaminants in the areas discussed above?
19. **California Environmental Quality Act Compliance.** This action is exempt from the provisions of the California Environmental Quality Act (CEQA) in accordance with section 15061(b)(3) of chapter 3, title 14 of the California Code of Regulations because it can be seen with certainty that there is no possibility that the activity in question will have a significant effect on the environment. CEQA will be complied with, as necessary; when and if remedial actions are proposed.
20. **Qualified Professionals.** The Dischargers' reliance on qualified professionals promotes proper planning, implementation, and long-term cost-effectiveness of

investigations. Professionals should be qualified, licensed where applicable, and competent and proficient in the fields pertinent to the required activities. Business and Professions Code sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgments be performed by or under the direction of licensed professionals.

21. **Cost Recovery.** Pursuant to Water Code section 13304(c), and consistent with other statutory and regulatory requirements, including but not limited to Water Code section 13365, the San Diego Water Board is entitled to, and will seek reimbursement for all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order.

IT IS HEREBY ORDERED, pursuant to Water Code sections 13267 and 13304 that the California Department of Transportation, the City of La Mesa, the City of Lemon Grove, the City of San Diego, the National Steel and Shipbuilding Company, the San Diego Unified Port District, and the U.S. Navy (collectively Dischargers) must comply with the following directives:

1. **Phase 1 Work Plan.** Submit a Phase 1 Work Plan to evaluate the current nature and extent of impairment related to contaminated sediments in the Mouth of Chollas Creek and the Chollas Creek Tidally-Influenced Area. The Phase 1 Work Plan must be received by the San Diego Water Board **no later than 5:00 p.m. on February 29, 2016**. The Phase 1 Work Plan must:
 - a. **Current Nature and Extent of Impairment.** Provide an interpretation of the current nature and extent of impairment for the Mouth of Chollas Creek and the Chollas Creek Tidally-Influenced Area. Identify the additional data needed to fully characterize the nature and extent of impairment in the Mouth of Chollas Creek and the Chollas Creek Tidally-Influenced Area.
 - b. **Data Gaps.** Include a strategy to investigate data gaps and provide additional data needs. Proposed sampling locations must be sufficient to fully characterize the nature and vertical and lateral extent of impairment including near storm drains, outfalls, under railways and roadways, and near pier pilings. The strategy must provide justification for all proposed sampling locations.
 - c. **Map.** Include a detailed map to scale showing existing and proposed sampling locations.
 - d. **Laboratory Analyses.** Include the full range of potential waste constituents discharged to the environment including, at a minimum, total

PCB congeners, metals, pesticides, PAHs, total organic carbon, and physical parameters. Sampling shall not proceed without concurrence of the San Diego Water Board. Total PCB concentrations shall be expressed as the sum of the following 41 congeners:

Congeners 18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206.

- e. **Sampling Protocols and Quality Assurance Project Plan.** Include the sampling protocols and a Quality Assurance Project Plan (QAPP).
 - f. **Mouth of Chollas Creek Proposed Maintenance Dredging.** Provide the details of the proposed maintenance dredging expected to be performed by the U.S. Navy in the Mouth of Chollas Creek. This must include the proposed dredging footprint, vertical extent, and proposed pre- and post-dredging sampling and analyses. Describe environmental controls to be implemented to limit re-suspension and re-deposition of sediment.
 - g. **Detailed Schedule.** Include a detailed schedule for completion of all Phase 1 activities including a schedule for the proposed maintenance dredging by the U.S. Navy and submission of the Phase 1 Report as described in Directive 2 below.
2. **Implementation of the Phase 1 Work Plan.** The Dischargers shall commence with the implementation of the Phase 1 Work Plan in accordance with the detailed schedule or after **60 calendar days** following submission of the Phase 1 Work Plan, unless otherwise directed in writing by the San Diego Water Board.
 3. **Phase 1 Report.** The Dischargers shall submit a Phase 1 Report describing the results from implementing the Phase 1 Work Plan. The Phase 1 Report must include a refined Conceptual Site Model (CSM) that incorporates all of the data, identifies data gaps, and additional data needs, if any. The CSM must identify potential sources causing the impairment in the Mouth of Chollas Creek and the Chollas Creek Tidally-Influenced Area.

The Phase 1 Report must include a map showing the location of all current and historic storm water conveyance features including inlets, catch basins, and discharge points to the Mouth of Chollas Creek and Chollas Creek Tidally-Influenced Area. The Report must be received by the San Diego Water Board **no later than 5:00 p.m. on February 28, 2017.**
 4. **Phase 2 Work Plan.** The Dischargers must submit a Phase 2 Work Plan to investigate potential sources of impairment identified in the Phase 1 Report. The Phase 2 Work Plan must be received by the San Diego Water Board **no later than 5:00 p.m. on August 31, 2017.** The Phase 2 Work Plan must:

- a. **Potential Sources.** Provide a strategy to investigate all potential sources identified in the Phase 1 Report discharging to the Mouth of Chollas Creek and the Chollas Creek Tidally-Influenced Area.¹³
 - b. **Potential Pathways.** Provide an analysis of potential pathways for contaminant transport to and within the Mouth of Chollas Creek and Chollas Creek Tidally-Influenced Area.
 - c. **Map.** Include a detailed map to scale showing the location and elements of all potential pollutant sources discharging to the Mouth of Chollas Creek and Chollas Creek Tidally-Influenced Area.
 - d. **Sampling Locations.** Include sampling locations to be collected within all catch basins and similar junctions where accessible, and at intervals adequate to detect potential sources. In addition, samples must be collected at locations designed to assess contributions from potential pollutant sources such as businesses with industrial activities or other pollutant generating activities within the current MS4. The proposed sampling strategy must identify the sample number, location, and provide justification for the sampling intervals within the MS4.
 - e. **Sampling Protocols and Quality Assurance Project Plan.** Include sampling protocols and a QAPP.
 - f. **Detailed Schedule.** Include a detailed schedule for completion of all Phase 2 activities.
5. **Implementation of the Phase 2 Work Plan.** The Dischargers shall commence with the implementation of the Phase 2 Work Plan in accordance with the detailed schedule or after **60 calendar days** following submission of the Phase 2 Work Plan, unless otherwise directed in writing by the San Diego Water Board.
 6. **Phase 2 Report.** The Dischargers must submit a Phase 2 Report describing the results from implementing the Phase 2 Work Plan. The Report must include a discussion on the sources and the pathways for contaminant transport to the Mouth of Chollas Creek and the Chollas Creek Tidally-Influenced Area. The Phase 2 Report must also include a refined CSM that incorporates all of the data and conclusions based on the results of the Phase 1 and Phase 2 investigations and provide recommendations for additional work, if needed. The Phase 2 Report must be received by the San Diego Water Board **no later than 5:00 p.m. on March 15, 2018.**

¹³ This may include investigating the Chollas Creek Watershed as a potential source.

7. **Compliance Dates.** The compliance dates for the Work Plans and Reports required by this Order are summarized in Table 3.

Table 3. Compliance Dates for Work Plans and Reports

Directive	Requirement	Due Date
1	Phase 1 Work Plan	February 29, 2016
2	Phase 1 Report	February 28, 2017
3	Phase 2 Work Plan	August 31, 2017
4	Phase 2 Report	March 15, 2018

An extension of due date(s) may be granted by the Assistant Executive Officer for good cause.

8. **Penalty of Perjury Statement.** All reports must be signed by the Dischargers' corporate officer or its duly authorized representative, and must include the following statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

9. **Electronic Data Submittals.** The Electronic Reporting Regulations require electronic submission of any report or data required by a regulatory agency from a cleanup site after July 1, 2005.¹⁴ All information submitted to the San Diego Water Board in compliance with this Order is required to be submitted electronically via the Internet into the GeoTracker database <http://geotracker.waterboards.ca.gov> (GeoTracker Site ID. T10000006999). The electronic data must be uploaded on or prior to the regulatory due dates set forth in the Order or addenda thereto. To comply with these requirements, the Dischargers must upload to the GeoTracker database the following minimum information:
- a. **Electronic Report.** A complete copy of all work plans, assessment, cleanup, and monitoring reports, including the signed transmittal letters,

¹⁴ Chapter 30, division 3 of title 23 and division 3 of title 27, California Code of Regulations.

director and contain:

1. Complete sample analytical reports;
2. Complete laboratory QA/QC reports;
3. A discussion of the sample and QA/QC data; and
4. A transmittal letter that indicates whether or not all the analytical work was supervised by the director of the laboratory, and contains the following statement "All analyses were conducted at a laboratory certified for such analyses by the California Department of Public Health in accordance with current USEPA procedures."

13. **Notifications.**

- a. **Cost Recovery.** Upon receipt of invoices, and in accordance with instruction therein, the Dischargers must reimburse the San Diego Water Board for all reasonable costs incurred by the Board to investigate discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order and consistent with the estimation of work.
- b. **All Applicable Permits.** This Order does not relieve the Dischargers of the responsibility to obtain permits or other entitlements to perform necessary assessment activities. This includes, but is not limited to, actions that are subject to local, State, and/or federal discretionary review and permitting.
- c. **Enforcement Discretion.** The San Diego Water Board reserves its right to take any enforcement action authorized by law for violations of the terms and conditions of this Order.
- d. **Enforcement Notification.** Failure to comply with requirements of this Order may subject the Dischargers to enforcement action, including but not limited to administrative enforcement orders requiring the Dischargers to cease and desist from violations, imposition of administrative civil liability, pursuant to Water Code section 13268 in an amount not to exceed \$1,000 for each day in which the violation occurs, referral to the State Attorney General for injunctive relief, and referral to the District Attorney for criminal prosecution. The Dischargers are jointly and severally liable for the entire amount of the administrative civil liability. The San Diego Water Board reserves the right to seek administrative civil liability from any or all of the Dischargers.
- e. **Requesting Administrative Review by the State Water Board.** Any person affected by this action of the San Diego Water Board may petition the State Water Board to review the action in accordance with section

13320 of the Water Code and California Code of Regulation Title 23 section 2050. The petition must be received by the State Water Board (Office of Chief Counsel, P.O. Box 100, Sacramento, California 95812) within 30 calendar days of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request.¹⁵


Ordered by JAMES G. SMITH
Assistant Executive Officer

26 Oct 2015
Date

¹⁵ Nothing in this Order prevents the Dischargers from later petitioning the State Water Resources Control Board to review other future San Diego Water Board orders regarding the Mouth of Chollas Creek, including but not limited to subsequent investigative orders and/or cleanup or abatement orders, if any. Upon such petition, the San Diego Water Board will not assert that the Dischargers have previously waived or forfeited their right to petition the San Diego Water Board's action or failure to act under Water Code section 13320. Further, upon such petition, the San Diego Water Board will not assert that the Dischargers are precluded from petitioning for review of future orders by any failure to petition for review of this Order.