



California Regional Water Quality Control Board San Diego Region

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Edmund G. Brown Jr.
Governor

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August 26, 2011

In reply refer to:
T10000002921:janderson

Ms. Darlene Nicandro
San Diego Unified Port District
3165 Pacific Highway
San Diego, California 92101

Dear Mr. Thorne:

SUBJECT: INVESTIGATIVE ORDER NO. R9-2011-0064
SUNROAD RESORT MARINA
955 HARBOR ISLAND DRIVE, SAN DIEGO, CALIFORNIA

Enclosed is Investigative Order No. R9-2011-0064 (Order) issued by the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) to the San Diego Unified Port District (Port). The Order directs the Port to conduct an investigation of bay sediments at the Sunroad Resort Marina.

The Order is issued under authority of California Water Code section 13267. The report of the investigation is due to the San Diego Water Board no later than **5:00 pm on February 29, 2012**. Other reporting deadlines are presented in Directive D of the Order. The Lockheed Martin Corporation (Lockheed) will be conducting an investigation of the bay sediments at their site adjacent to Sunroad Resort Marina. I highly recommended that the Port work with Lockheed to the extent practicable to concurrently conduct the bay sediment investigations so that the data from both investigations can be used to assess the sediment quality in the East Basin.

As stated in our letter dated March 22, 2011 there is sufficient documentation to determine that an unauthorized discharge of copper and zinc has occurred and to name the Port as the discharger. The factual basis for this is presented in Findings 2 and 3 of the Order.

Please review the requirements contained within the Investigative Order and note that the technical report submitted to the San Diego Water Board must be accompanied by the certification, under penalty of law, that the information is true, accurate, and complete.

California Environmental Protection Agency

The procedures for appeal of this enforcement action to the State Water Resources Control Board (State Water Board) can be found in Directive K of the Order. Please note that the process of requesting an evidentiary hearing and/or appeal to the State Water Board does not automatically suspend or postpone the need to comply with requirements and due dates in the Order attached to this letter.

For questions pertaining to the subject matter, please contact Mr. John Anderson at (858) 467-2975 or via email at janderson@waterboards.ca.gov.

In the subject line of any response, please include the requested "in reply refer to" information located in the heading of this letter.

Sincerely,



JULIE CHAN

Chief, Cleanup and Land Discharge Branch

JC:jpa

Enclosure: Investigative Order No. R9-2011-0064

cc with enclosure via e-mail:

Mr. Bill Hays, San Diego Unified Port District, bhays@portofsandiego.org

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

INVESTIGATIVE ORDER NO. R9-2011-0064

**AN ORDER DIRECTING THE SAN DIEGO UNIFIED PORT DISTRICT TO
SUBMIT TECHNICAL REPORTS PERTAINING TO AN INVESTIGATION OF
SEDIMENT QUALITY AT:**

**THE SUNROAD RESORT MARINA
955 HARBOR ISLAND DRIVE, SAN DIEGO, 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 State Water Board 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*¹; 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. **Unauthorized Discharge of Wastes:** The presence of copper and zinc in the bay sediments adjacent to the Sunroad Resort Marina (Facility) indicate that an unauthorized discharge of copper and zinc has occurred.
 - a. **Evidence that an Unauthorized Release has Occurred:** Current and historic activities at the Facility have resulted in the discharge of copper and zinc to the sediments in the East Basin of Harbor Island. Copper (historically used in hull paint) and zinc (used as sacrificial anodes

¹ http://www.waterboards.ca.gov/water_issues/programs/bptcp/docs/sediment/sed_qilty_part1.pdf

attached to boat hulls) are common pollutants associated with boat maintenance. As part of a sediment quality investigation conducted for the Former Tow Basin, sediment samples were collected from the East Basin of Harbor Island (East Basin). Sediment sample locations S15, S16, and S17 are located adjacent to the western portion of the marina. As shown on the following table copper and zinc were detected in the samples collected from locations S15, S16, and S17.

Sample Depth (ft.)	Copper (mg/kg)			Zinc (mg/kg)		
	Sample Location S15	Sample Location S16	Sample Location S17	Sample Location S15	Sample Location S16	Sample Location S17
0 to 0.5	65.6	85.2	102	151	173	182
0.5 to 1.5	14.3	35.6	15.5	50.7	91	40.9
1.5 to 2.5	6.9	5.2	4	25.1	18.6	16.7
2.5 to 3.5	5.7	3.5	9.7	19.6	15.8	31.9
3.5 to 4.5	--	--	10.4	--	--	34.6
5.5 to 5.5	--	--	3.1	--	--	18.3

3. **Persons Responsible for the Discharge of Waste:** As the trustee of Port lands which comprises the Sunroad Resort Marina, the San Diego Unified Port District (Port) is responsible for the discharge of copper and zinc into Bay sediments.
4. **Water Quality Standards:** The Facility is located within the San Diego Mesa Hydrologic Area (HA) (Basin Number 908.20) of the Pueblo San Diego Hydrologic Unit (HU) (Basin Number 908.00). Groundwater in the San Diego Mesa HA has no designated beneficial uses and is also designated in the Basin Plan as being exempted from having existing municipal (MUN)² beneficial uses.

San Diego Bay, however, has the following beneficial uses that apply to the East Basin:³

- a. **Human Health**
 - i. Contact Water Recreation
 - ii. Non-Contact Water Recreation

² Basin Plan, footnote 3, supra. Table 2-5.

³ Basin Plan, Table 2-3.

- iii. Commercial and Sport Fishing
- iv. Shellfish Harvesting
- b. **Benthic Community**
 - i. Estuarine Habitat
 - ii. Marine Habitat
 - iii. Migration of Aquatic Organisms
- c. **Aquatic Dependant Wildlife**
 - i. Wildlife Habitat
 - ii. Rare, Threatened, or Endangered Species
- d. **Other**
 - i. Industrial Service Supply
 - ii. Navigation

The Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality (Bays and Estuaries Plan) established Sediment Quality Objectives (SQOs) for Aquatic Life and Human Health as follows:

- a. **Aquatic Life – Benthic Community Protection:** Pollutants in sediments must not be present in quantities that, alone or in combination, are toxic to benthic communities in bays and estuaries of California.
- b. **Human Health:** Pollutants must not be present in sediments at levels that will bioaccumulate in aquatic life to levels that are harmful to human health.

Copper and zinc in the bay sediments from near the marina are at concentrations that have the potential for an adverse effect on the benthic community. Effects Range–Medium (ERM) and Effects Range-Low (ERL) are guidelines that have been used to evaluate the potential for an adverse effect on the benthic community by a given chemical.⁴ At concentrations below the ERL an adverse effect on the benthic community would be rarely observed. At concentrations greater than the ERL but

⁴ Long, E.R., MacDonald, D.D., Smith, S.L., 1995, *Incidence of Adverse Biological Effects Within Ranges of Chemical Concentration in Marine and Estuarine Sediments*, Environmental Management Vol. 19, No. 1, pp. 81-97.

below the ERM it is possible that adverse effects would occur. At concentrations in excess of the ERM adverse effects would frequently be observed.

The following table lists the samples with either copper and/or zinc concentrations that exceed the respective ERL as defined by the National Oceanic and Atmospheric Administration (NOAA)⁵ of 34 mg/kg and 150 mg/kg, respectively. Seven samples exceed the ERL which suggests that it is likely that an adverse effect on the benthic community exists due to the presence of copper and zinc in the bay sediments.

Sample Location	Sample Depth (ft.)	Copper ERL (34 mg/kg)	Zinc ERL (150 mg/kg)
S15	0 to 0.5	65.6	151
S16	0 to 0.5	85.2	173
	0.5 to 1.5	35.6	--
S17	0 to 0.5	107	182

The concentration of copper and zinc in the sediment are at concentrations that will likely have an impact on the benthic community and thus fails to comply with the narrative objectives of the Plan likely creating a condition of pollution and nuisance in waters of the State.

An evaluation of the East Basin for benthic community health is being conducted by various parties. The report described in the Directives section of this Investigative Order is one element of this investigation. Coordination of the work with the various parties is expected to provide a more comprehensive evaluation and be cost-effective for all parties. A future Order will be issued to all parties to prepare a human health and ecological risk assessment for the East Basin.

- 5. Basis for Requiring Technical and Monitoring 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, must bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In requiring the reports, the San Diego Water Board must provide the person with a written explanation with

⁵ NOAA, 1999, Sediment Quality Guidelines Developed for the National Status and Trends Program.

regard to the need for the reports, and identify the evidence that supports requiring that person to provide the reports.

6. **Need for and Benefit of Technical and Monitoring Reports:** Technical reports and Monitoring reports are needed to provide information to the San Diego Water Board regarding (a) the nature and extent of the discharge, (b) the nature and extent of pollution conditions in State waters created by the discharge, (c) the threat to the benthic community receptors posed by the discharge, and (d) appropriate cleanup and abatement measures, if required. The reports will enable the San Diego Water Board to determine the vertical and lateral extent of the discharge, ascertain if the condition of pollution poses a threat to the benthic community in the vicinity of the Facility, and provide technical information to determine what cleanup and abatement measures are necessary to bring the Facility into compliance with applicable water quality standards including the Bays and Estuaries Plan. Based on the nature and possible consequences of the discharges (as described in Findings No. 2, 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.

The San Diego Water Board sent a letter to the Port dated March 22, 2011 requesting a voluntary sediment quality investigation at the Sunroad Resort Marina, and outlining the elements required for the investigation. The letter also contained a compliance schedule. The first deliverable, a workplan, was requested for June 30, 2011. As of August 3, 2011, the Port had not provided the workplan, nor had it communicated to the San Diego Water Board when the workplan would be submitted.

It is important that the Port complete the sediment quality sampling prior to September 30, 2011. General Dynamics conducted a sediment quality investigation of its Tow Basin area in September 2010, and Lockheed intends to conduct a sediment quality investigation of its Marine Railroad Terminal in September 2011. These investigations along with the Port's investigation of the Sun Road Marina will be evaluated together to assess compliance of marine sediment in the East Harbor Basin with the sediment quality objectives in the Bays and Estuaries Plan. Synoptic sediment quality data are important for the overall assessment of the East Harbor Basin. Therefore, this Order must necessarily have very short due dates to complete the field sampling.

7. **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 San Diego Water 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.

8. **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 may have a significant effect on the environment. CEQA will be complied with as necessary when and if remedial actions are proposed.
9. **Qualified Professionals:** The Port's reliance on qualified professionals promotes proper planning, implementation, and long-term cost-effectiveness of investigation, and cleanup and abatement activities. Professionals should be qualified, licensed where applicable, and competent and proficient in the fields pertinent to the required activities. California 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.

IT IS HEREBY ORDERED, pursuant to Water Code sections 13267 and 13304, the San Diego Unified Port District (Port) must comply with the following directives:

- A. **SEDIMENT QUALITY OBJECTIVE WORKPLAN:**⁶ The Port must prepare a Sediment Quality Objective Workplan (Workplan) as described below. The Workplan must be received by the San Diego Water Board **no later than 5:00 p.m. on September 2, 2011**. The Workplan must contain the following information:
 1. **Summary of Previously Conducted Site Investigations:** The Workplan must include a summary of all previously conducted investigations conducted at the Facility.
 2. **Storm Water Conveyance Map:** The Workplan must include a map showing the location of all current and historic storm water conveyance features including inlets and discharge points. This map should also include utilities and floor drain locations.
 3. **Sampling and Analysis Plan:** The Workplan must include a Sampling and Analysis Plan that describes the proposed sampling methodologies, chemical analyses methods, and sampling locations. Contingencies for collection of additional samples should be proposed

⁶ For the purposes of this Order the Workplan will address the off shore bay sediments within the footprint of the Sunroad Resort Marina lease holding.

in the Workplan. The investigation must include all areas potentially impacted by discharges of wastes from the Facility and must follow methods presented in the Bays and Estuaries Plan. The investigation must be adequate to determine if bay sediments meet the SQOs for Aquatic Life – Benthic Community.

- B. **SEDIMENT SAMPLING TIME FRAME:** Bay sediment sampling conducted in accordance with methods presented in the Bays and Estuaries Plan must be completed before **September 30, 2011**.
- C. **SEDIMENT QUALITY OBJECTIVE REPORT:** The Port must prepare a Sediment Quality Objective Assessment Report (Report) describing the results of the of the Bay sediment investigation. The Report must be received by the San Diego Water Board **no later than 5:00 p.m. on February 29, 2012** and must contain the following information:
1. **Delineation of Contamination:** Adequately characterize the extent (both laterally and vertically) of any wastes discharged to bay sediments.⁷
 2. **Field Methodologies:** Describe the field methodologies used for drilling, bay sediment sampling, and other activities.
 3. **Chemical Analyses:** Describe the laboratory analytical methods and protocols used for each environmental medium including soil, water, and bay sediments. The suite of chemical analyses, methods and protocols must be adequate to quantitatively identify and characterize the full range of site-specific waste constituents.
 4. **Sample Locations and Number:** Describe the locations, type, and number of samples identified and shown on site maps and other figures as needed. All sampling data shall be presented in tabular format including the sample result, sample medium, location, depth, sampling method, analyses and rationale for the method.
 5. **Compliance with Multiple Lines of Evidence Approach:** The Report must include:
 - a. The analysis, interpretation, and station assessment category of the collected bay sediment samples pursuant to the Multiple Lines of Evidence approach in the Bays and Estuaries Plan.

⁷ This will require the collection of samples from deeper depths than required by the methods presented in the Bays and Estuaries Plan. To ensure that the sampling required by the Bays and Estuaries Plan can be completed by September 30, 2011, the vertical extent assessment will be completed under a separate workplan and reporting schedule to be determined in a subsequent addendum to this Order.

- b. A determination of whether or not the sediment meets the Sediment Quality Objective for Aquatic Life – Benthic Community and Human Health Protection.
- 6. **Conclusions and Recommendations:** The Report must include conclusions based on the results of the sediment quality objective report and recommendations for additional work, including stressor identification, if needed.
- D. **COMPLIANCE DATES:** The following is a list of the compliance dates for activities presented in the preceding Directives.

<i>Directive</i>	<i>Activity</i>	<i>Compliance Date</i>
A	Sediment Assessment Workplan	September 2, 2011
B	Sediment Sampling	Before September 30, 2011
C	Sediment Assessment Report	February 29, 2012

- E. **PENALTY OF PERJURY STATEMENT:** All reports must be signed by the Port's responsible 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."

- F. **DOCUMENT SUBMITTALS:** Submit both one paper and one electronic, searchable PDF copy of all documents required under this Order to:

Executive Officer
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123-4353
Attn: John Anderson, PG

All correspondence and documents submitted to the San Diego Water Board must include the following Geotracker Site ID in the header or subject line:

T10000002921

- G. **ELECTRONIC DATA SUBMITTALS:** The Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & and Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site after July 1, 2005. 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. **T10000002921**). 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 Port must upload to the Geotracker database the following minimum information, as applicable.
1. **Laboratory Analytical Data:** Analytical data (including geochemical data) for all bay sediment and water samples in Electronic Data File (EDF) format. Water and bay sediment data include analytical results of samples collected from: monitoring wells, boreholes, gas and vapor wells or other collection devices, surface water, groundwater, piezometers, stockpiles, and drinking water wells.
 2. **Site Map:** Site map or maps which display discharge locations, streets bordering the Facility, and sampling locations for all soil, water, and vapor samples. The site map is a stand-alone document that may be submitted in various electronic formats.⁸ A site map must also be uploaded to show the maximum extent of any groundwater pollution. An updated site map may be submitted at any time.
 3. **Electronic Report:** A complete copy (in searchable PDF format) of all workplans, assessment, cleanup, and monitoring reports including the signed transmittal letters, professional certifications, and all data presented in the reports.
- H. **VIOLATION REPORTS:** If the Port violates any requirement of this Order, then the Port must notify the San Diego Water Board office by telephone as soon as practicable once the Port has knowledge of the violation. The San Diego Water Board may, depending on violation severity, require the Port to submit a separate technical report on the violation within five working days of telephone notification.

⁸ Formats include .gif, .jpeg, .jpg, tiff, .tif, .pdf

- I. **OTHER REPORTS:** Notify the San Diego Water Board in writing prior to any site activities that have the potential to cause further migration of pollutants.

- J. **PROVISIONS**
 1. **No Pollution, Contamination or Nuisance:** The storage, handling, treatment, or disposal of soil containing waste or polluted groundwater must not create conditions of nuisance as defined in Water Code section 13050(m). The Port must properly manage, treat and dispose of wastes and polluted groundwater in accordance with applicable federal, State and local regulations.

 2. **Good Operation and Maintenance:** The Port must maintain in good working order and operate as efficiently as possible any monitoring system, Site or control system installed to achieve compliance with the requirements of this Order.

 3. **Contractor/Consultant Qualifications:** All reports, plans and documents required under this Order must be prepared under the direction of appropriately qualified professionals. A statement of qualifications and license numbers, if applicable, of the responsible lead professional and all professionals making significant and/or substantive contributions must be included in the report submitted by the Port. The lead professional performing engineering and geologic evaluations and judgments must sign and affix their professional geologist or civil engineering registration stamp to all technical reports, plans or documents submitted the San Diego Water Board.

 4. **Laboratory Qualifications:** All samples must be analyzed by California State-certified laboratories using methods approved by the USEPA for the type of analysis to be performed. All laboratories must maintain QA/QC records for San Diego Water Board review.

 5. **Laboratory Analytical Reports:** Any report presenting new analytical data is required to include the complete Laboratory Analytical Report(s). The Laboratory Analytical Report(s) must be signed by the laboratory director and contain:
 - a. Complete sample analytical reports.
 - b. Complete laboratory QA/QC reports.
 - c. A discussion of the sample and QA/QC data.
 - d. A transmittal letter that must indicate whether or not all the analytical work was supervised by the director of the laboratory,

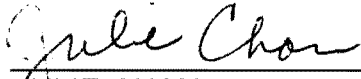
and contain the following statement, "All analyses were conducted at a laboratory certified for such analyses by the California Department of Public Health in accordance with current USEPA procedures."

6. **Reporting of Changed Owner or Operator:** Notify the San Diego Water Board of any changes in Site occupancy or ownership associated with the property described in this Order.
7. **Regulations:** All corrective actions must be in accordance with the provisions of CCR Title 23, Chapter 15, the Cleanup and Abatement Policy in the Water Quality Control Plan for the San Diego Basin (9) State Water Board Resolution No. 92-49, *Policies and Procedures for Investigation, and Cleanup and Abatement of Discharges under California Water Code Section 13304*, and State Water Board Resolution No. 2008-0070, *Adoption of a Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality*.

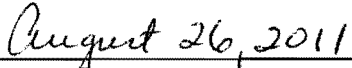
K. NOTIFICATIONS

1. **Cost Recovery:** Upon receipt of invoices, and in accordance with instructions therein, the Port must reimburse the San Diego Water Board for all reasonable costs incurred by the San Diego Water 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 and consistent with the estimation of work identified in our letter to the Port dated March 22, 2011.
2. **All Applicable Permits:** This Order does not relieve the Port of the responsibility of obtaining 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.
3. **Enforcement Notification:** Failure to comply with requirements of this Order may subject the Port to enforcement action, including but not limited to administrative enforcement orders requiring the Port to cease and desist from violations, imposition of administrative civil liability, pursuant to Water Code sections 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.
4. **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 CCR 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.



JULIE CHAN
Chief, Groundwater Basins Branch



Date

JC;jh:jpa