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TECHNICAL MEMORANDUM

To:	Robert Smith, U.S. Army Corps of Engineers David Gibson, San Diego Regional Water Quality Control Board	**Date:**	April 8, 2014
From:	Kellee Christensen and Kyle King, Anchor QEA	**Project:**	131003-01.02
Cc:	Michael Chee, National Steel and Shipbuilding Company Michael Palmer, de maximis, inc. David Templeton, Michael Whelan, P.E, Adam Gale, and Elizabeth Appy, Anchor QEA		
Re:	San Diego Shipyard Sediment Site – South Shipyard (Place ID 794466, Order No. R9-2013-0093) Monthly and Weekly Biological and Environmental Monitoring Report: March 1 to March 29, 2014		

INTRODUCTION

The San Diego Bay Environmental Restoration Fund – South (South Trust) is remediating contaminated sediments at the South Shipyard portion of the San Diego Shipyard Sediment Site (Site). Remediation is required to comply with Cleanup and Abatement Order (CAO) No. R9-2012-0024 issued by the San Diego Regional Water Quality Control Board (Water Board 2012a). Biological and environmental monitoring must be conducted during dredging operations to comply with the following:

- Mitigation Monitoring and Reporting Program (MMRP; Water Board 2012b)
  - Mitigation Measures (MMs) 4.5.3 through 4.5.7 and 4.5.9
- U.S. Army Corps of Engineers Individual Permit (USACE IP; 2013)
  - Dredging Condition 16
  - Essential Fish Habitat (EFH) and Green Sea Turtle Condition 1
  - Endangered Species Act (ESA) Condition 1[1]
- Waste Discharge Requirements and Section 401 Water Quality Certification (WDR/WQC) Order No. R9-2013-0093 (Water Board 2013)

[1] ESA Condition 1 also requires photographs of the silt curtain and turbidity monitoring observations. This information is provided in a separate water quality report.

- Discharge Requirement VI-C
- Section V-N.10

Anchor QEA was contracted by the South Trust to conduct biological and environmental monitoring. Specific permit and regulation language associated with each biological and environmental element included in the monitoring effort is presented in the Biological and Environmental Monitoring Report for September 29 to October 5, 2013 (Anchor QEA 2013).

This Biological and Environmental Monitoring Report documents biological and environmental monitoring performed at the Site between March 1 and 29, 2014, and as such, it fulfills the monthly monitoring requirements for the month of March as well as the weekly monitoring requirements for March 24 through 29. No work was conducted on March 9, 16, 23, and 30.

During the month of March, in-water activities included transporting cover material barges from the Sediment Management Area (SMA) to Sediment Management Unit (SMU)-3, -2 (South), -2 (North), -2 (Underpier), and -1 and conducting sand placement operations in SMU-3, -2 (South), -2 (North), -2 (Underpier), and -1. Site activities in the SMA included stockpiling cover material delivered to the Site, loading cover material onto barges, demobilizing contractor equipment, and performing general maintenance of the water management system, offloading, and truck wash areas.

All in-water construction work was completed on March 29, with only final demobilization activities continuing into the week of March 31. No further weekly or monthly monitoring will be conducted; therefore, this report will serve as the final Biological and Environmental Monitoring Report for the Site.

Water quality monitoring activities, results, and discussion for this reporting period are provided in a separate report.

BIOLOGICAL RESOURCES MONITORING

Contractor Training Log Information (MMRP MMs 4.5.3 and 4.5.6 and WDR/WQC Section VI-C)

Contractor training for protecting eelgrass beds and wildlife species with protected status occurred on March 4. Training focused on educating the contractor's crew on marine mammals, California least terns, and other special status birds.

Eelgrass Monitoring (MMRP MM 4.5.4)

SMU-1 and -2 (South) currently contain eelgrass (Merkel 2013). Buoys and stakes mark the boundaries of eelgrass locations. No eelgrass disturbance was observed during this reporting period.

Green Sea Turtle and Marine Mammal Monitoring (MMRP MMs 4.5.5 and 4.5.7, WDR/WQC Sections V-N.10 and VI-C, and USACE IP EFH and GST Condition 1)

No green sea turtles or marine mammals were sighted on any day during this report period; therefore, no special construction measures were required at this time.

Special Status Bird Monitoring (MMRP MM 4.5.9, WDR/WQC Section VI-C, and USACE IP ESA Condition 1)

Weekly Monitoring

Weekly special status bird monitoring occurred on March 5, 12, 20, and 24. Observations were conducted within monitoring areas as identified on Figure 1, which correspond to approximately 500 feet surrounding anticipated construction activities. No California least terns were observed during weekly monitoring. One brown pelican was observed in SMU-3 on March 5. Multiple double-crested cormorants were observed; five in SMU-1 on March 5, six in SMU-1 on March 12, two in SMU-1 on March 20, and one in SMU-1 on March 24. No disturbance was noted. Details of these observations are presented in Attachment A.

ENVIRONMENTAL COMPLIANCE INSPECTIONS (USACE IP DREDGING CONDITION 16)

All environmental compliance measures described in USACE IP Dredging Condition 16 and other permits are being implemented adequately at the Site.

SEDIMENT MANAGEMENT AREA DISCHARGE MONITORING (USACE IP DREDGING CONDITION 16)

The water management system at the SMA was only operational during the March 3 to 8 reporting period. During that period, water was collected from the sediment barge, the truck wash, and Baker tanks located on the water barge. Water samples were collected from the designated point of compliance at the final Baker tank in the water management tank series on March 3, and all samples comply with the City of San Diego Industrial User Discharge Permit (IUDP). Water discharge has been completed for the project and final receipts/manifests will be documented in accordance with the conditions of the IUDP.

REFERENCES

Anchor QEA, 2013. *Biological and Environmental Monitoring Report San Diego Shipyard Sediment Site – South Shipyard*. October 2013.

Merkel (Merkel & Associates, Inc.), 2013. Pre-Construction Eelgrass Report for the San Diego Shipyard Sediment Matter – Cleanup and Abatement Order No. R9-2012-0024 South Shipyard Sediment Cleanup Project. September 15, 2013.

USACE (U.S. Army Corps of Engineers), 2013. Department of the Army Permit, File No. SPL-2013-00147-RRS. Issued on September 13, 2013.

Water Board (California Regional Water Quality Control Board, San Diego Region), 2012a. Cleanup and Abatement Order No. R9-2012-0024 for the Shipyard Sediment Site. Issued on March 14, 2012.

Water Board, 2012b. *Final Environmental Impact Report*. March 14, 2012.

Water Board, 2013. Waste Discharge Requirements for National Steel and Shipbuilding Company, BAE Systems San Diego Ship Repair, Inc., San Diego Unified Port District. Order No. R9-2013-0093. San Diego Shipyard Sediment Remediation, San Diego Bay, San Diego, California. Issued on July 10, 2013.

FIGURE

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Feet
0 150 300 450 600

Figure 1
Special Status Bird Monitoring Areas
San Diego Shipyard Sediment Site – South Shipyard

ATTACHMENT A
SPECIAL STATUS BIRD MONITORING DATASHEETS

Weekly Special Status Bird Monitoring Form

San Diego Shipyard Sediment Site – South Shipyard

Biologist: Kellee Christensen	**Date:** 3/5/2014
Weather: 52 degrees, clear	

Observation No.	Time	Special Status Bird Species Observed	No. of Special Status Birds Observed	Location/Behavior/Comments
1	11:40	Brown pelican	1	SMU-3, flying and swimming. No disturbance noted.
2	12:05	None	NA	S-Lane Parcel
3	12:15	None	NA	SMU-4
4	12:30	None	NA	SMU-2
5	12:40	Double-crested cormorant	5	SMU-1, perching on silt curtain. No disturbance noted.

Weekly Special Status Bird Monitoring Form

San Diego Shipyard Sediment Site – South Shipyard

Biologist: Kyle King	**Date:** 3/12/2014
Weather: 70 degrees	

Observation No.	Time	Special Status Bird Species Observed	No. of Special Status Birds Observed	Location/Behavior/Comments
1	10:30	None	NA	SMU-4
2	10:35	None	NA	SMU-3
3	10:45	None	NA	SMU-2
4	10:55	Double-crested cormorant	6	SMU-1, foraging (1) and perching on silt curtain (5). No disturbance noted.
5	11:15	None	NA	S-Lane Parcel

Weekly Special Status Bird Monitoring Form

San Diego Shipyard Sediment Site – South Shipyard

Biologist: Kyle King	**Date:** 3/20/2014
Weather: 66 degrees	

Observation No.	Time	Special Status Bird Species Observed	No. of Special Status Birds Observed	Location/Behavior/Comments
1	11:30	None	NA	SMU-4
2	11:40	None	NA	SMU-3
3	11:45	None	NA	SMU-2
4	12:05	Double-crested cormorant	2	SMU-1, perching on curtain. No disturbance noted.
5	12:15	None	NA	S-Lane Parcel

Weekly Special Status Bird Monitoring Form

San Diego Shipyard Sediment Site – South Shipyard

Biologist: Travis Merritts	**Date:** 3/24/2014
Weather: 62 degrees, clear	

Observation No.	Time	Special Status Bird Species Observed	No. of Special Status Birds Observed	Location/Behavior/Comments
1	14:10	None	NA	S-Lane Parcel
2	14:15	None	NA	SMU-4
3	14:20	None	NA	SMU-3
4	14:30	None	NA	SMU-2
5	14:35	Double-crested cormorant	1	SMU-1, foraging. No disturbance noted.