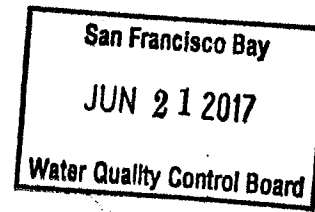


**DEPARTMENT OF TRANSPORTATION**

DISTRICT 4  
111 GRAND AVENUE  
P.O. BOX 23660  
OAKLAND, CA 94623-0660  
PHONE (510) 622-0716  
FAX (510) 286-4563  
TTY 711  
www.dot.ca.gov



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June 20, 2017

Contract No. EA 04-013574  
04-SF,Ala-80-8.65R/8.85R,0.0/0.8R  
Pier E4-E18  
Marine Foundation Removal

Mr. Derek Beauduy  
Environmental Specialist  
San Francisco Bay Regional Water Quality Control Board  
1515 Clay Street, Suite 1400  
Oakland, California 94612

Dear Mr. Beauduy,

This letter provides clarification about the documents already submitted to San Francisco Bay Regional Water Quality Control Board (SFRWQCB) to comply with the provisions of the Construction General NPDES Permit (CGP) and the Marine Foundation Removal project's WDR and 401 Water Quality Certification. This letter also discusses the applicability of the various documents to the remaining work.

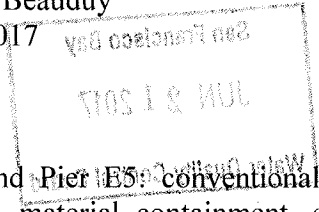
The Department removed Pier E3 in 2015 and Piers E4 and E5 in 2016. The rest of the marine foundations (Piers E6 through E18) included in the Marine Foundation Removal project are scheduled to be removed in 2017. The above-water mechanical dismantling of Piers E6 through E18 has been previously described in SWPPP Amendments 6, 7, 8, and, 10, which included appropriate best management practices (BMPs) to minimize construction activity impact on water quality. Amendments 6, 7, 8, and 10 were submitted to the SFRWQCB on December 15, 2016, February 14, 2017, May 9, 2017, and May 24, 2017, respectively. Amendment 6 was accepted January 13, 2017; Amendment 7 was accepted on February 14, 2017; Amendment 8 was accepted on June 6, 2017; and, Amendment 10 was accepted on May 24, 2017.

The initial SWPPP and Containment, Collection and Handling Work Plan (MCCHWP) covered activities at Pier E3, Pier E4, and Pier E5, but were expanded by subsequent amendments to cover Piers E6 through E18. The SWPPP was intended to "cover Pier E4 through E18 demolition work" and the SWPPP would be and has been amended as the demolition work has progressed. The SWPPP contains BMPs for erosion and sediment control, material and waste management, and non-stormwater management. The MCCHWP included detailed BMPs used during demolition and dismantling of the pier structures. The MCCHWP included BMPs for the following activities at

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Pier E4 and Pier E5 conventional above-water demolition, in-water blasting and post-blast operations, material containment, equipment use, cleaning measures, dust suppression, and concrete disposal. SWPPP amendments 6, 7, 8, 9, 10, and 11 modified the SWPPP and MCCHWP to provide BMPs for the above-water and below-water activities for dismantling and controlled blasting of Piers E6 through E18.

The original MCCHWP included a set of plans for the piers to be demolished and a schedule of activities for the removal (mechanical dismantling and blasting) of all piers extending into the end of 2018. In early 2017, however, a new schedule was proposed for pier removal which indicated that all piers would be blasted in 2017. The tentative new schedule was briefly discussed during our presentation to you on June 14, 2017, and a copy is included with this letter. Pier demolition activities are described beginning on page 8 of that schedule. Post-blast debris removal will begin after the first set of piers are blasted in September and is currently scheduled to continue into early December 2017.

Dewatering activities are not proposed for post-blast activities, but may be implemented during the buttress-wall drilling activities scheduled for June 2017 and July 2017, as described in SWPPP Amendment 8.

All SWPPP amendments related to post-blast BMPs, except for the recently submitted SWPPP Amendment 11, were previously submitted and accepted by the SFWQCB, and were proven to be effective during the previous two years of work activities. All BMPs were improved where necessary based on experience with actual pier dismantling and implosion activities.

For further clarification Table 1 summarizes the above-water and below-water SWPPP amendments that will be used to cover the various activities during the 2017 Marine Foundation Removal project. Table 2 summarizes the potential amount of explosives used during the underwater blasting of Piers E6 through E18. Also included with this letter, among other documents, are the current schedule of activities and a diagram of marine foundations where controlled underwater blasting will occur.

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If you have any questions or feedback on this submittal, please contact Dragomir Bogdanić, Branch Chief, at (510) 622-0716.

Sincerely,

J  


DRAGOMIR BOGDANIC  
Branch Chief  
Construction Environmental Engineering Support  
Office of Water Quality  
Division of Environmental Planning and Engineering

Enclosures

1. Table 1. 2017 Pier E6 to Pier E18 Post-Blast Debris Management and Removal SWPPP and Amendments
2. Summary of 2017 Pier E6 to Pier E18 Blast Events
3. MCCHWP, accepted June 21, 2016
4. SAP: submitted to Water Board on June 16, 2017
5. SWPPP Amendment 5
6. SWPPP Figure 10 to Figure 13
7. SWPPP Amendment 9
8. SFOBB Phase 2 CPM Schedule, May 2017 Update
9. Site Diagram, SFOBB East Side Foundation Removal Phase (Season 2)

Table 1. 2017 Pier E6 to Pier E18 Post-Blast Debris Management and Removal SWPPP and Amendments

2017 Activity	SWPPP Amendment
Post-blast floating debris management	Material Containment, Collection and Handling Work Plan (MCCHWP), submitted to SFWQCB on May 16, 2016; accepted on June 21, 2016. The MCCHWP was revised by SWPPP Amendment 3. In Amendment 3, the skimmer boat was eliminated and, and for a single pier blast, debris booms were used to contain floating debris generated by the pier blast. Laborers, working from skiff boats, also collected and removed floating debris from bay waters using pool skimmers. SWPPP Amendment 11 was prepared for the pier blasting activities scheduled for 2017 and describes containment measures for blasting two- or three-piers at a time. These measures are similar to those described in SWPPP Amendment 3. SWPPP Amendment 3 was submitted to the SFWRQCB on August 22, 2016 and was accepted on September 15, 2016. SWPPP Amendment 11 was submitted to the SFWRQCB on June 16, 2017 and is awaiting review and acceptance.
Post-blast water quality monitoring	Sampling and Analysis Plan (SAP), submitted to SFWQCB on June 16, 2017; awaiting review and acceptance. This SAP describes procedures for monitoring water quality after pier blasting. Pre- and post-blast sediment sampling techniques are also described.
BMPs utilized during and after blasting	MCCHWP, which also included a work schedule. A revised work schedule for the 2017 activities is included with this letter. The MCCHWP also describe BMPs used at Pier 96 where mud, concrete, and metal rebar are separated before they are sent for upland disposal. SWPPP Amendment 9, as described below, revised the BMPs used at Pier 96.
BMPs implemented during removal of debris (concrete and mud) from bay floor and placement in barges	MCCHWP and SWPPP Amendment 5. Amendment 5 was submitted to SFRWQCB on October 6, 2016; accepted on October 13, 2016.
Post-blast mud and debris containment	Described in the SWPPP (Figure 10 to Figure 13), submitted to the SFWQCB on May 16, 2016; accepted on June 21, 2016.
Management and sorting of mud and concrete for upland disposal	MCCHWP as modified by SWPPP Amendment 9 (expansion of Pier 96 area to allow for additional material processing). Amendment 9 was submitted to SFRWQCB on May 11, 2017; accepted on May 11, 2017.
Water quality sampling and analysis plan for monitoring of post-implosion cleanup activities.	Mechanical Dismantling SAP was submitted to SFWQCB on February 24, 2017; accepted on March 2, 2017

Table 2. Summary of 2017 Pier E6 to Pier E18 Blast Events

Blast	Date	Piers	Total Weight of Explosives (pounds)	Blast Duration (seconds)
1	September 2	E7, E8	8,560	4.3
2	September 16	E6	15,380	5.7
3	September 30	E9, E10	7,560	3.9
4	October 14	E11, E12, E13	5,760	3.6
5	October 28	E14, E15	3,840	2.2
6	November 11	E16, E17, E18	6,000	3.7

Note: Tentative schedule. Piers selected for controlled underwater blasting and the dates of those blasting events are subject to change for reasons of safety, logistics, or weather.

