

**Draft Technical Report
for
Tentative Cleanup and Abatement
Order No. R9-2011-0001**

APPENDIX FOR SECTION 17

ALTERNATIVE REFERENCE POOLS

September 15, 2010

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Table A17-1 2003 Final Reference Pool

Regional Board Recommended Final Reference Pool for NASSCO and BAE Systems (formerly Southwest Marine) Sediment Investigation¹

| Study | Station |
|--|---------|
| 2001 Chollas/Paletta | 2238 |
| | 2433 |
| 2001 NASSCO/ BAE Systems (formerly Southwest Marine) | 2441 |
| | 2433 |
| | 2243 |
| Bight'98 | 2231 |
| | 2233 |
| | 2238 |
| | 2240 |
| | 2241 |
| | 2242 |
| | 2243 |
| | 2244 |
| | 2247 |
| | 2252 |
| | 2256 |
| | 2257 |
| | 2265 |
| | 2433 |
| 2435 | |
| 2436 | |
| 2440 | |

1. Regional Water Quality Control Board – San Diego. “Regional Board Position on a Reference Pool for the NASSCO, Southwest Marine, Mouth of Chollas Creek, and Seventh Street Channel Sediment Investigations. June 9, 2003.”

Table A17-2 San Diego Bay Council Reference Pool

San Diego Bay Council Recommended Reference Pool for NASSCO and BAE Systems (formerly Southwest Marine) Sediment Investigation²

| Study | Station |
|----------|---------|
| Bight'98 | 2227 |
| | 2229 |
| | 2252 |
| | 2433 |
| | 2434 |
| | 2435 |
| | 2441 |

2. San Diego Bay Council – Elaine M. Carlin, Scientific Consultant. “Selecting a Pool of Reference Stations for San Diego Bay - April 28, 2003.”

Table A17-3 NOAA Reference Pool

NOAA Recommended Reference Pool for NASSCO and BAE Systems (formerly Southwest Marine) Sediment Investigation³

| Study | Station |
|--|---------|
| 2001 Chollas/Paletta | 2243 |
| | 2433 |
| | 2243 |
| 2001 NASSCO/ BAE Systems (formerly Southwest Marine) | 2441 |
| | 2433 |
| | 2243 |
| Bight'98 | 2224 |
| | 2227 |
| | 2228 |
| | 2229 |
| | 2231 |
| | 2233 |
| | 2239 |
| | 2242 |
| | 2243 |
| | 2433 |
| | 2434 |
| | 2435 |
| | 2436 |
| 2440 | |

3. NOAA - Donald MacDonald and Denise Klimas. "An Approach for Selecting a San Diego Bay Reference Envelope to Evaluate Site-Specific Reference Stations - January 16, 2003."

Table A17-4 Comparison of Mean Values Between the 2003 Final Reference Pool, San Diego Bay Council Reference Pool, and NOAA Reference Pool

| Sediment Chemistry ² | Units | Mean Values ¹ | | |
|--------------------------------------|-----------------|--------------------------|------------------|-------------|
| | | 2003 Final Pool | Bay Council Pool | NOAA Pool |
| | | n = 22 | n = 7 | n = 20 |
| Arsenic | mg/kg | 5.45 | 6.76 | 5.45 |
| Cadmium | mg/kg | 0.14 | 0.16 | 0.15 |
| Chromium | mg/kg | 30.8 | 31.8 | 32.3 |
| Copper | mg/kg | 56.7 | 54.9 | 54.9 |
| Lead | mg/kg | 23.5 | 19.7 | 23.1 |
| Mercury | mg/kg | 0.26 | 0.18 | 0.28 |
| Nickel | mg/kg | 9.37 | 11.1 | 9.87 |
| Silver | mg/kg | 0.52 | 0.56 | 0.50 |
| Zinc | mg/kg | 112 | 103 | 109 |
| Total PP-PAHs³ | µg/kg | 346 | 803 | 513 |
| Total PCBs | µg/kg | 43.3 | 51.3 | 42.0 |
| Toxicity | | | | |
| Amphipod Survival (control-adjusted) | % | 95 | 98 | 95 |
| Benthic Community | | | | |
| BRI-E⁴ | unitless | 27.6 | 15.1 | 26.0 |

1. Sediment quality data taken from April 10, 2003 document produced by SCCWRP, Navy, and Exponent (Bay et. al., 2003).
2. One-half of the method detection limit was substituted for nondetect values, except for the Shipyard data, where one-half of the reporting was used (Bay et. al., 2003).
3. Total PP-PAHs = Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benz[a]anthracene, Chrysene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo [a] pyrene, Indeno [1,2,3-cd]pyrene, Dibenz[a,h]anthracene, and Benzo[ghi]perylene.
4. BRI-E = Benthic Response Index – Embayments