CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN DIEGO REGION

Tent. ADMINISTRATIVE CIVIL LIABILITY ORDER NO. R9-2009-0084

IMPOSING ADMINISTRATIVE CIVIL LIABILITY PURSUANT TO A
SETTLEMENT AGREEMENT AGAINST
WILLIAM AND HEIDI DICKERSON, AND PERRY AND PAPENHAUSEN, INC.
501 FIRST STREET, CORONADO
SAN DIEGO COUNTY
FILE NO. 05C-041

AND

LARRY AND PENNY GUNNING, AND PERRY AND PAPENHAUSEN, INC. 505 FIRST STREET, CORONADO SAN DIEGO COUNTY

FOR

VIOLATION OF BASIN PLAN PROHIBITION NOS. 1, 3, AND 7
VIOLATION OF CLEAN WATER ACT §301
VIOLATION OF CLEAN WATER ACT §401 WATER QUALITY CERTIFICATION DUE
TO

RIPRAP REMOVAL AND SEAWALL CONSTRUCTION AND

VIOLATIONS OF EFFLUENT LIMITATIONS IN ORDER NO. 2000-90, NPDES NO. CAG919001

A. The California Regional Water Quality Control Board, San Diego Region (Regional Board) has been presented with a proposed settlement of claims for administrative liability against William and Heidi Dickerson, Larry and Penny Gunning, and Perry & Papenhausen, Inc., a California Corporation (referred to collectively as Dischargers). The settlement was developed during negotiations between the Regional Board's Prosecution Staff and the Dischargers. This Administrative Civil Liability Order (ACL Order) and the attached settlement agreement (Agreement) (Attachment No. 1) resolve the claims provided in Amended Administrative Civil Liability Complaint No. R9-2008-0019 for mandatory minimum penalties and this ACL Order through the payment of an administrative civil liability in the amount of \$61,200 and compliance with certain riprap replacement and eelgrass mitigation requirements pursuant to the settlement agreement between the Dischargers, the United States Army Corps of Engineers and the San Diego Unified Port District (Federal Settlement Agreement) attached hereto and incorporated herein as Attachment 2 to Exhibit B.

In accepting the proposed settlement, the Regional Board has considered each of the factors prescribed in Water Code section 13385, as set out more fully below. The Regional Board's consideration of these factors is based upon information obtained by the Regional Board in investigating the claims or otherwise provided to the Regional Board, including the information and comments received from the public. In addition to

these factors, the administrative civil liability will allow the Regional Board to recover its staff costs in investigating the claims and pursuing an enforcement action.

A Notice of Proposed Settlement has been published in the *San Diego Union-Tribune*, a paper of general circulation in the San Diego area, notifying the public of the review period and soliciting public comments on the terms of the settlement. The proposed settlement supports the assessment of administrative civil liability in the amount of \$61,200 and implementation of the specified mitigation requirements for the full and final resolution of each of the claims and alleged violations set forth herein, and is in the public interest. The settlement and assessment of administrative civil liability provides for the full and final release of the Dischargers from all claims arising out of the specified violations.

BACKGROUND FACTS:

1. Administrative Civil Liability Complaint No. R9-2008-0019

On or about May 20, 2008, the Assistant Executive Officer issued Amended Administrative Civil Liability Complaint No. R9-2008-0019 which proposes to assess administrative civil liability of \$24,000 against William and Heidi Dickerson, and Perry & Papenhausen, Inc., for certain alleged violations of Order No. R9-2000-90, NPDES Permit No. CAG919001, General Waste Discharge Requirements for Temporary Groundwater Extraction and Similar Waste Discharges to San Diego Bay and Storm Drains or Other Conveyance Systems Tributary Thereto (Dewatering Permit) (Attached as Exhibit A to Agreement (Attachment No. 1) at 501 First Street, Coronado, California. This ACL Order imposes administrative liability, in accordance with the Agreement; \$24,000 of the settlement amount is to satisfy the mandatory minimum penalties detailed in ACL Complaint No. R9-2008-0019. The remaining \$37,200 in liability and the requirement that Dischargers complete mitigation requirements pursuant to the Federal Settlement Agreement, incorporated by this ACL Order, is to address the alleged violations detailed below in Section 4.

2. Amended Clean Up and Abatement Order Nos. R9-2006-0101 and 0102

On or about June 13, 2007, the Regional Board adopted Cleanup and Abatement Order Numbers R9-2006-0101, as amended, and R9-2006-0102, as amended, finding that the Dischargers' riprap removal, and construction of a seawall and footing resulted in the unauthorized discharge of waste and threatened to cause conditions of pollution in violation of the Clean Water Act and provisions of the Water Quality Control Plan for the San Diego Basin (9) (Basin Plan) adopted by the Regional Board.

On September 27, 2007, Dischargers filed a petition for writ of mandate in the

Superior Court of the State of California for the County of San Diego, entitled *William G. Dickerson, et al. v. The San Diego Regional Water Quality Control Board*, Case No. 37-2007-00075848-CU-WM-CTL (Writ Action), claiming that the seawall construction and movement of natural beach sand do not qualify as a discharge of waste. The Dischargers and the Regional Board, through its representatives at the Attorney General's Office, have negotiated a settlement in principle to the Writ Action. The ACL Order and Agreement are contingent upon the Regional Board's approval of settlement of the Writ Action (Agreement, paragraph 7). Under the Writ Action the Dischargers have agreed to pay \$67,000 in addition to the penalty proposed in this ACL Order.

Dischargers enter into the Agreement and the ACL Order without the admission or denial of any fact or the adjudication of any issue in this matter. This ACL Order and attached Agreement resolve the potential liability for the alleged violations, which gave rise to Amended Clean Up and Abatement Order Nos. R9-2006-0101 and 0102.

3. Federal Settlement Associated with Dischargers' Activities

On August 19, 2008, the Dischargers' entered into a settlement with the United States Army Corps of Engineers (Army Corps) and the San Diego Unified Port District (Port) to address (1) the Dischargers' removal of riprap and erection of the seawall and (2) Discharger's allegations against federal agencies and the Port that nearby dredging of the Bay is causing erosion of Discharger's property (Federal Settlement Agreement) (Attachment No. 2). Among other things, the Federal Settlement Agreement requires Dischargers to replace riprap and mitigate eelgrass damage. Under the terms of the Federal Settlement Agreement, the Dischargers agreed to remove the portion of the seawall's footings that lie within both the Port and Clean Water Act jurisdiction. The Dischargers also agreed to replace rock riprap removed from the beach and to mitigate the detrimental impacts caused by their activities to the eelgrass. Mitigation will be in the form of eelgrass planting at a 1:1.2 ratio in the impacted area. Finally, the Federal Settlement Agreement requires the Dischargers to pay \$25,000 to the Port and a civil penalty of \$250,000 to the Army Corps.

HAVING PROVIDED PUBLIC NOTICE OF THE PROPOSED SETTLEMENT FOR PUBLIC COMMENT THE REGIONAL BOARD FINDS:

4. Alleged Violations of Basin Plan Prohibition Nos. 1, 3, and 7, Clean Water Act sections 301 and 401, and Regional Board issued Water Quality Certification for Riprap Removal

The following represents a summary of the facts and alleged violations as they appear in the files of the Regional Board.

Bill and Heidi Dickerson are the homeowners at 501 First Street, Coronado. Their adjoining neighbors to the southeast at 505 First Street are Larry and Penny Gunning. The Dickersons obtained a Regional Board Clean Water Act section 401 Water Quality Certification (Certification No. 05C-041) to replace the riprap on July 25, 2005, while the Gunnings did not. On or about May 1, 2006, Perry and Papenhausen, Inc., removed the riprap shore protection at 501 and 505 First Street. On or about May 8, 2006, Perry and Papenhausen, Inc., erected a seawall at 501 and 505 First Street. The footing of the seawall encroached approximately six to nine inches onto State tidelands. To date, the Army Corps has not issued the necessary federal permit and shore protection has not been restored.

On June 13, 2007, the Regional Board unanimously affirmed the issuance of Amended Cleanup and Abatement Order (CAO) No. R9-2006-0101 against the Dickersons, and Perry and Papenhausen, Inc., and Amended CAO No. R9-2006-0102 against the Gunnings and Perry and Papenhausen, Inc., to address the waste discharges and harm to beneficial uses caused by the Dischargers' removal of riprap shore protection and erection of a seawall. In the CAOs the Regional Board found that three Basin Plan prohibitions had been violated. The Regional Board found: (1) that waste was discharged to waters of the U.S./State (Finding 23 of Amended CAO No. R9-2006-0101 [Attachment No. 3] and Finding 11 of Amended CAO No R9-2006-0102 [Attachment No. 4]); and (2) that the discharged waste caused and was threatening to cause a condition of pollution (Finding 23 of Amended CAO No. R9-2006-0101 and Finding 17 of Amended CAO No R9-2006-0102) in violation of Basin Plan prohibitions (Finding 15 of Amended CAO No R9-2006-0102). The Regional Board further found that the Gunnings' and Perry and Papenhausen, Inc.'s, removal of riprap and construction of a seawall required coverage under a Clean Water Act section 404 permit from the Army Corps and a section 401 Water Quality Certification from the Regional Board (Finding 15 of Amended CAO No R9-2006-0102).

Accordingly, Dischargers are alleged to have discharged waste (concrete, sand, soil and sediment) into waters of the United States and the state (San Diego Bay) in violation of the Basin Plan, the Clean Water Act, and Regional Board issued Water Quality Certification. The Dischargers' alleged violations are further detailed below:

A. Discharge of Waste in Violation of Basin Plan Prohibition Nos. 1, 3, and 7.

The Regional Board pursuant to Water Code section 13243 may specify certain conditions or areas where the discharge of waste or certain types of waste is not permitted. The Basin Plan contains the following relevant prohibitions:

- (1) The discharge of waste to waters of the state in a manner causing, or threatening to cause a condition of pollution, contamination or nuisance as defined in Water Code section 13050, is prohibited.
- (3) The discharge of pollutants or dredged or fill material to waters of the United States except as authorized by an NPDES permit or a dredged or fill material permit (subject to the exemption described in Water Code section13376) is prohibited.
- (7) The dumping, deposition, or discharge of waste directly into waters of the state, or adjacent to such waters in any manner which may permit its being transported into the waters, is prohibited unless authorized by the Regional Board.

Water Code section 13050 has the following definition:

"Pollution" means an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following:

(A) The waters for beneficial uses . . .

The properties at 501 and 505 First Street, Coronado reside along the San Diego Bay. The San Diego Bay has the following beneficial uses as listed in the Water Quality Control Plan for the San Diego Basin (9):

- 1. Industrial Service Supply (IND)
- 2. Navigation (NAV)
- 3. Contact Water Recreation (REC1)
- 4. Non-Contact Water Recreation (REC2)
- 5. Commercial and Sport Fishing (COMM)
- 6. Preservation of Biological Habitats of Special Significance (BIOL)
- 7. Estuarine Habitat (EST)
- 8. Wildlife Habitat (WILD)
- 9. Rare, Threatened, or Endangered Species (RARE)
- 10. Marine Habitat (MAR)
- 11. Migration of Aquatic Organisms (MIGR)
- 12. Spawning, Reproduction, and/or Early Development (SPWN)
- 13. Shellfish Harvesting (SHELL)

Dischargers are alleged to have created a condition of pollution by unreasonably affecting the waters for Marine Habitat. Marine Habitat includes uses of water that support marine ecosystems including, but not limited to, preservation or enhancement of marine habitats, vegetation such as kelp and eelgrass, fish, shellfish, or wildlife (e.g., marine mammals, shorebirds).

Destabilization of the beach resulted in the mobilization of the beach sands that smothered large portions of the eelgrass beds in front of 501 and 505 First Street, Coronado.

Eelgrass beds grow in the muddy and sandy bottoms of shallow bays and coves, tidal creeks, and estuaries. They serve as a haven for crustaceans, mollusks, numerous species of fish, and other wildlife, providing these creatures with habitat, nursery grounds, and food. The long blades of eelgrass are often covered with tiny marine plants and animals. Eelgrass is not seaweed; it is a blooming underwater grass that spreads by rhizomes or roots. Eelgrass beds build up in the spring and summer, and then decay in the fall and winter. Eelgrass blades can grow up to three feet long.

Damage to eelgrass affects whole populations of fish, waterfowl, shellfish, and other animals, as well as the stability of the shorelines. Each blade of eelgrass is a small food factory. Diatoms, bacteria, and detritus (decaying plant and animal matter) gather on eelgrass leaves. This detritus provides food for many invertebrates. The large number of invertebrates present makes eelgrass beds rich feeding areas for fish and marine birds. As eelgrass dies, bacteria and fungi feed on the dead leaves, breaking them down into tiny bits. These particles of plant material provide vital nutrients for the near shore food web.

Eelgrass beds cushion the impact of waves and currents, preventing erosion. Eelgrass also improves water clarity, cycles nutrients, and generates oxygen during daylight hours. Eelgrass roots weave sediments in place. This protection helps preserve the highly productive bacteria in the sediments which nourish large amounts of invertebrates. During low tides, eelgrass shelters small animals and plants from extreme temperatures. In shallow tidal influenced areas, eelgrass beds hold moisture like a sponge, offering additional protection for small creatures.

The importance of eelgrass is well known. On July 31, 1991, the Southern California Eelgrass Mitigation Policy was adopted by the California Department of Fish and Game, National Marine Fisheries Service, and U.S. Fish and Wildlife Service. This policy provides a basis for consistent recommendations to avoid, minimize, and mitigate projects that impact existing eelgrass resources.

Since the riprap was removed the eelgrass beds are alleged to have receded from the shoreline. Prior to riprap removal the eelgrass beds were within three feet of the riprap (see Attachment No. 5, lower photograph left hand side where neighboring riprap still exists), now that the riprap is gone, the eelgrass beds have receded in some places up to 75 feet from pre-seawall

locations. See Attachment No. 6, Photograph of eelgrass damage taken by the Port on January 3, 2007. The photograph displays that the eelgrass beds to the southeast can still be seen close to the shore, however in front of 501 and 505 First Street the eelgrass beds have receded. This is further reinforced by viewing Attachment No. 7, JNE Associates Eelgrass Survey depicting up to March 26, 2009. The survey shows that to the southeast of the homeowners the seasonal variation has remained constant approximately 25 feet, while in front of 501 and 505 First Street the variation is three times that. Thus the correlation between riprap removal and shifting of the beach sand and the receding of the eelgrass bed is a logical one. On May 23, 2008, Dr. Kevin Hovel, Associate Professor of Biology at San Diego State University released a report based upon his field investigation concluding that the Dischargers' removal of the riprap and construction of the seawall was the primary reason for the loss of eelgrass and that other potential sources could only account for a relatively small fraction of the loss (Attachment No. 8).

The Dischargers' activities are also alleged to have violated the Basin Plan prohibitions detailed above because: (1) the concrete, sand, soil and sediment are alleged to have discharged during the Dischargers activities and as a result of the destabilized beach are alleged to have created a condition of pollution because it has unreasonably impacted the beneficial use of the San Diego Bay as Marine Habitat; and (2) removal of the riprap at 501 and 505 First Street and construction of a wall and footing on both properties was not authorized and is alleged to have resulted in the discharge of waste in violation of Prohibition Nos. 3 and 7.

B. Discharge of Waste in Violation of Clean Water Act Sections 301 and 401, and Regional Board issued Water Quality Certification

The Dischargers' activities are alleged to have violated conditions of a Regional Board issued Clean Water Act section 401 Water Quality Certification and in other instances Dischargers failed to obtain the necessary Water Quality Certification in violation of Clean Water Act section 401. On July 28, 2005, the Regional Board issued an Order for Low Impact 401 Water Quality Certification and Waiver of Waste Discharge Requirements (Certification No. 05C-041, Attachment No. 9) to Bill and Heidi Dickerson for the removal and replacement of riprap by their contractor Perry and Papenhausen, Inc., in front of their house along San Diego Bay. Under section 401 of the federal Clean Water Act, every applicant for a federal permit or license for any activity which may result in a discharge to a water body must obtain State Water Quality Certification that the proposed activity

will comply with state water quality standards¹. The Gunnings did not make an application.

Most certifications are issued in connection with Army Corps Clean Water Act section 404 permits for dredge and fill discharges. Certification applications for single-Region, non-hydroelectric, non-water rights projects are made to the appropriate Regional Board. The Regional Board reviews the application and takes the appropriate certification action (certification or denial). A complete application for a 401 Water Quality Certification must include an application fee and all information required by state law. Each Regional Board can provide application forms for their jurisdictions.

In this case, the Dickersons applied for the Army Corps Nationwide Permit 3 (Maintenance, i.e., the replacement of a previously authorized structure). The Dickersons violated their 401 Water Quality Certification when they failed to install engineered riprap on the previous riprap footprint as they proposed after they removed the old riprap.

Although the Dickersons obtained a 401 Water Quality Certification from the Regional Board to replace the riprap, they did not obtain coverage to construct the seawall. The pouring of a concrete footing which encroached six to nine inches on Port tidelands is alleged to be a discharge of waste into waters of the state. In addition, the Dickersons did not obtain a Water Quality Certification to construct the seawall in violation of Clean Water Act section 401. The Gunning's failed to obtain a 401 Water Quality Certification for either the riprap removal or the construction of the seawall on their property.

The Dischargers' failure to install riprap and the construction of a seawall has allegedly exposed the sand, soil and sediment on the beach to the open bay currents, tidal and wave action which continuously redistributes the beach materials onto the eelgrass (*Zostera marina*) as documented by the Port in its January 31, 2007, Beach Topography Surveys (Attachment No. 10).

Therefore, the Discharger's are alleged to have discharged waste (concrete, sand, soil and sediment) into waters of the state (San Diego Bay) in violation of a Regional Board Order (Dickersons' 401 Water Quality Certification), Clean Water Act section 401 water quality certification requirement and Clean Water Act section 301's prohibition against unauthorized discharge of waste.

5. Administrative Civil Liability Authority

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¹ Water quality standards include Beneficial Uses; Objectives; and the Anti-Degradation Policy. Each Regional Board maintains its own Water Quality Control Plan for each major hydrologic basin in California. Each region's Water Quality Control Plan lists the water bodies in that region and describes the applicable water quality standards.

The Regional Water Board may impose civil liability pursuant to the relevant portions of Water Code section 13385(a) [emphasis added]:

Any Person who violates any of the following shall be liable civilly in accordance with this section:

- (2) Any waste discharge requirements or dredged or fill material permit issued pursuant to this chapter or any *water quality certification* issued pursuant to Section 13160.
- (4) Any order or *prohibition* issued pursuant to Section 13243 or Article 1 (commencing with Section 13300) of Chapter 5, if the activity subject to the order or prohibition is subject to regulation under this chapter.
- (5) Any requirements of *Section 301*, 302, 306, 307, 308, 318, 401, or 405 of the Clean Water Act, as amended.

Furthermore, Water Code section 13385 (c) provides that:

Civil liability may be imposed administratively by the state board or a regional board pursuant to Article 2.5 (commencing with Section 13323) of Chapter 5 in an amount not to exceed the sum of both of the following:

- (1) Ten thousand dollars (\$10,000) for each day in which the violation occurs.
- (2) Where there is a discharge, any portion of which is not susceptible to cleanup or is not cleaned up, and the volume discharged but not cleaned up exceeds 1,000 gallons, an additional liability not to exceed ten dollars (\$10) multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons.

The Regional Board alleges that Dischargers violated Basin Plan Prohibition Nos. 1, 3, and 7, Clean Water Act sections 301 and 401, and conditions specified in a Clean Water Act section 401 Water Quality Certification. The Regional Board is, therefore, authorized to impose civil liability pursuant to Water Code section 13385, subdivision (a)(2), (a)(4) and (a)(5).

Alternatively, Water Code section 13350 provides that:

(a) Any person who ... (2) in violation of any waste discharge requirement, waiver condition, certification, or other order or prohibition issued, reissued, or amended by a regional board or the state board, discharges waste, or causes or permits waste to be deposited where it is discharged, into the waters of the state ... shall be liable civilly, and remedies may be proposed, in accordance with

subdivision (d) or (e).

- (e) The state board or a regional board may impose civil liability administratively pursuant to Article 2.5 (commencing with Section 13323) of Chapter 5 either on a daily basis or on a gallon basis, but not both.
- (1) The civil liability on a daily basis may not exceed five thousand dollars (\$5,000) for each day the violation occurs.
- (2) The civil liability on a per gallon basis may not exceed ten dollars (\$10) for each gallon of waste discharged.

Accordingly, the Regional Board is also authorized to impose civil liability for the alleged violations pursuant to Water Code section 13350, subdivision (a)(2).

6. Maximum Civil Liability Amount

Pursuant to Water Code section 13385 the maximum civil liability that the Regional Board may assess is (a) ten thousand dollars (\$10,000) per day of violation (per violation); and (b) ten dollars (\$10) for every gallon discharged, over one thousand gallons discharged, that was not cleaned up. Section 13385(e) requires that, when pursuing civil liability under Water Codes section 13385, "At a minimum, liability shall be assessed at a level that recovers the economic benefit, if any, derived from the acts that constitute the violation."

A. Discharge of Waste in Violation of Basin Plan Prohibition Nos. 1, 3, and 7.

The Dischargers are alleged to have discharged and to continue to discharge waste to waters of the United States as a result of their removing the rock riprap shore protection and erecting the seawall in violation of Basin Plan Prohibition Nos. 1, 3, and 7, starting on or about May 1, 2006 (riprap removal), resulting in 1,122 days of violation and counting. Therefore the maximum liability that the Regional Board could assess is \$11.22 million.

B. Discharge of Waste in Violation of Clean Water Act sections 301 and 401.

The Gunnings' failure to obtain a Clean Water Act section 404 dredge and fill permit and 401 Water Quality Certification for the removal of riprap on the bay side of their property is a violation of Clean Water Act section 301's prohibition against unauthorized discharges. These violations started on or about May 1, 2006 (riprap removal), and continued until May 15, 2006 (completion of wall construction), resulting in 15 days of violation.

The violations associated with the construction of the seawall in violation of Clean Water Act section 301, started on or about May 8, 2006 (digging for wall foundation), through May 15, 2006 (completion of wall construction), resulting in 7 days of violation.

Furthermore, the destabilized shoreline is alleged to continue to discharge waste to waters of the United States in violation of Clean Water Act section 301, from May 16, 2006, to present, resulting in 1,122 days of violation and counting. Therefore the maximum liability that the Regional Board may assess for these violations is \$11.44 million.

C. Failure to Reinstall Riprap in Violation of Water Quality Certification.

The Dickersons, and Perry and Papenhausen, Inc., failed to reinstall the rock riprap shore protection after completion of the seawall in violation of their Water Quality Certification (Certification No. 05C-041) from May 16, 2006 (seawall completion) to September 28, 2006 (revocation of Water Quality Certification), resulting in 135 days of violation.² Therefore the maximum liability that the Regional Board may assess is \$1.35 million.

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Accordingly, the total maximum liability that could be imposed by the Regional Board for all of the alleged violations is \$24.01 million.

Dischargers, however, contend that the total maximum liability is significantly less, based on theories related to the authority to issue penalties for federal Clean Water Act violations where the Federal Settlement Agreement has already been reached and based on \$1,000 per day limits set by Water Code section 13265 (and that 135 days of alleged discharge occurred). Dischargers believe that the alleged violations total approximately \$ 135,000 in maximum penalties before considering any mitigation factors.

7. Factors Affecting the Amount of Civil Liability

Water Code section 13385(e) requires the Regional Board to consider several factors when determining the amount of civil liability to impose. These factors include: "...the nature, circumstances, extent, and gravity of the violation or violations, whether the discharge is susceptible to cleanup or abatement, the degree of toxicity of the discharge, and, with respect to the violator, the ability to pay, the effect on its ability to continue its business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, economic

² The days of violations stopped accruing on September 28, 2006, when the Regional Board rescinded the Dickerson's 401 Water Quality Certification.

benefit or savings, if any, resulting from the violation, and other matters that justice may require. At a minimum, liability shall be assessed at a level that recovers the economic benefits, if any, derived from the acts that constitute the violation." The Regional Board has considered those factors in determining the amount of administrative civil liability imposed under this ACL Order.

A. The Nature, Circumstances, Extent, and Gravity of the Alleged Violations.

It is alleged that the Dischargers have discharged waste in violation of Basin Plan prohibitions, the Clean Water Act, and Regional Board issued Water Quality Certification by removing riprap and constructing a seawall in front of their homes along San Diego Bay. It is alleged that the Dischargers activities have caused eelgrass beds to recede resulting in an unreasonable impact to the beneficial use of the bay as marine habitat.

B. Whether Discharge is Susceptible to Cleanup or Abatement and Degree of Toxicity.

As part of Federal Settlement Agreement, Dischargers have agreed to reinstall the riprap shore protection, to replant bare eelgrass areas in front of their properties, and to monitor the eelgrass bed's success for five years. Riprap replacement and eelgrass mitigation pursuant to the Federal Settlement Agreement is also imposed under this ACL Order.

C. Ability to Pay and Ability to Continue its Business.

The Agreement proposes settlement of this matter for a liability amount that has been reached through negotiation with Dischargers and allows for payment of the liability in four equal installments within one year of adoption of the ACL Order. The Dischargers acceptance of the Agreement implies that the Dischargers are able to adhere to the payment terms and liability amount. Furthermore, it is presumed based on the Dischargers entering the Agreement that the Dischargers can comply with the Agreement terms while continuing in business.

D. Any Voluntary Cleanup Efforts Undertaken by the Dischargers.

Dischargers have made attempts to obtain the necessary authorizations to replace the riprap in order to prevent any further discharge of lose sediment from the exposed beach areas. Dischargers, however, are prohibited from taking any such mitigation measures until such approvals are obtained. Dischargers have been prohibited from conducting any cleanup efforts since approximately September of 2006, when the Regional Board and other

regulatory agencies revoked all authorization for Dischargers to conduct activities within the waters of the United States and the State.

E. Prior History of Violations.

The Dischargers do not have any prior history of violations with the Regional Board.

F. Degree of Culpability.

The Prosecution Staff believes that the Dischargers' culpability in this matter is high. Dischargers' awareness of the need to obtain a Water Quality Certification is evidenced by the fact that the Dischargers applied for and received a Water Quality Certification from the Regional Board for riprap removal and replacement for one of the two properties. The Dischargers then failed to obtain the same authorization for the second property, or inform the Regional Board when the decision was made not to replace the riprap in accordance with the Water Quality Certification. Furthermore, Perry and Papenhausen, Inc., is an experienced contractor and has worked on numerous properties in the Coronado area and is or should be well informed of the complex regulatory issues surrounding the construction of seawalls on bay-side properties. Lastly, prior to losing the ability to correct, Dischargers had ample time to replace the riprap and had notice that failure to do so was incurring violations.

G. Economic Benefit or Savings Resulting From the Alleged Violations.

The Regional Board is required to recover economic benefit as a minimum liability pursuant to Water Code Section 13385(e). Furthermore, the State Water Resources Control Board (State Board) Water Quality Enforcement Policy provides that assessment of liability should at a minimum take away whatever economic savings a discharger gains as a result of the violations.

Dischargers have gained an economic benefit from the delay in incurring the cost of replacing the riprap. It is estimated that the replacement of the riprap will cost approximately \$30,000. Prosecution Staff estimates that the economic benefit associated with the delayed cost of riprap replacement is \$5,280. This estimate is based on the assumption that riprap replacement should have occurred on or around June 1, 2006, and will not actually be spent until September 1, 2009, and using a 9.1% interest for the period of delayed costs.

Additional costs would have been incurred by the Dischargers if they would have sought the appropriate authorizations from the Regional Board and

other regulatory entities to leave their bay side property unguarded and/ or to construct the seawall where it is currently located. For example, Prosecution Staff estimates that compliance with the California Environmental Quality Act (CEQA), which would have been necessary prior to receiving such authorization, would have cost \$8,000 in February of 2006. Assuming that the Dischargers begin payment of the liability by September 1, 2009, at 9.1% interest, Dischargers will have received an economic benefit of \$11,043 for avoiding CEQA costs. Accordingly, the Prosecution Staff estimates that at a minimum the Dischargers received an economic benefit of \$16,323.

Conversely, Dischargers allege that there is no economic benefit from failure to comply with CEQA. Dischargers explain that they have already obtained City and Port permits for the seawall and in both cases did not trigger CEQA (or the activity fell within exceptions to CEQA). Furthermore, Dischargers explain that they originally intended to replace riprap and have agreed to do so as soon as all the necessary permits are obtained.

H. Other Matters as Justice may Require.

Estimated staff costs for investigation, enforcement, enforcement follow up, and preparation of this ACL Order are \$9,961.

Dischargers have entered into a Federal Settlement for their violations of the Clean Water Act and have agreed to pay \$275,000 for those violations. Dischargers assert that liability cannot be imposed for violations of the Clean Water Act because those claims have been decided under the Federal Settlement Agreement. Prosecution Staff is unaware of any authority in the Ninth Circuit that supports the proposition that prior settlement of federal Clean Water Act claims precludes or otherwise limits the Regional Board authority under the Porter Cologne Act to impose liability for Clean Water Act violations. There are reasonable grounds to argue that the Regional Board is not in privity with the Federal Plaintiffs and strong public policy reasons for allowing the Regional Board to maintain a separate action. Nevertheless, the Dischargers are already subject to significant liability and mitigation requirements that the Prosecution Staff feels will compensate for the natural resource damages that have occurred as a result of the violations alleged herein.

8. Discharger's Waiver of Right to Petition

As provided in the Agreement (Attachment No. 1 paragraph 2), Dischargers covenant and agree that if the Regional Board approves this ACL Order as specified herein, as part of the settlement, including attachments, Dischargers will not contest or otherwise challenge this ACL Order before the State Board, or any court.

9. Notification of Interested Parties

The Regional Board notified Dischargers and interested parties of its intent to consider the proposed settlement during its meeting of August 12, 2009. The Regional Board, in a public meeting, heard and considered all comments related to the proposed settlement.

10. Other Parties' Right to Petition

Any person aggrieved by this action of the Regional Board may petition the State Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Board must *receive* the petition by 5:00 p.m., 30 days after the date of this ACL Order, except that if the thirtieth day following the date of this ACL Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at http://www.waterboards.ca.gov/public_notices/petitions/water_quality/index.shtml or will be provided upon request.

11. California Environmental Quality Act

This enforcement action is being taken by the Regional Board to enforce provisions of the Water Code and, as such, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code section 21000 et seq.) in accordance with California Code of Regulations, Title 14, section 15321.

IT IS HEREBY ORDERED THAT:

The attached Agreement between the Assistant Executive Officer and the Dischargers is approved pursuant to Government Code section 11415.60 and is incorporated by reference into this Order.

I, John H. Robertus, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on August 12, 2009.

TENTATIVE		
JOHN H. ROBERTUS		
Executive Officer		

Attachment 1. ACL Settlement Agreement

Exhibit A. ACL Complaint No. R9-2008-0019

Exhibit B. ACL Tent. Order No. R9-2009-0084 (without attachment)

Attachment 2. Federal Settlement Agreement

Attachment 3. Amended CAO No. R9-2006-0101

Attachment 4. Amended CAO No. R9-2006-0102

Attachment 5. Eelgrass Photographs

Attachment 6. Port Photographs

Attachment 7. Eelgrass Survey

Attachment 8. SDSU Report

Attachment 9. Water Quality Certification, File No. 05C-041

Attachment 10. Port Topography Surveys

Attachment 1 ACL Settlement Agreement

See Item No. 6b, Doc. No. 2

Attachment 1 - Exhibit A ACL Complaint No. R9-2008-0019

California Regional Water Quality Control Board San Diego Region

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May 20, 2008

Linda S. Adams

Secretary for

Environmental Protection

CERTIFIED-RETURN RECEIPT REQUESTED 7007 3020 0001 0040 7287

Mr. J. Michael Sowinski, Jr., Esq. Opper and Varco LLP 225 Broadway, 19th Floor San Diego, California 92101-5005

Dear Mr. Opper:

el Sowinski, Jr., Esq. In reply refer to: CA:14-1411:fmelbourn

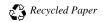
AMENDED COMPLAINT NO. R9-2008-0019 FOR ADMINISTRATIVE CIVIL LIABILITY FOR MANDATORY MINIMUM PENALTIES UNDER WATER CODE SECTION 13385, VIOLATION OF ORDER NO. R9-2000-0090, NPDES NO. CAG919001

501 First Street, Coronado, California

Enclosed is Amended Complaint No. R9-2008-0019, Administrative Civil Liability with Mandatory Minimum Penalties (MMPs) to William and Heidi Dickerson, and Perry & Papenhausen Construction, Inc. for groundwater discharges from 501 First Street, Coronado, California. The Amended Complaint recommends that the Regional Board impose a civil liability of \$24,000 for violations of effluent limitations established by Order No. R9-2000-0090, NPDES No. CAG919001, General Waste Discharge Requirements for Temporary Groundwater Extraction and Similar Waste Discharges to San Diego Bay and Storm Drains or Other Conveyance Systems Tributary Thereto. The original Complaint issued on March 14, 2008, recommended the imposition of a \$45,000 liability. The Complaint was amended to remove seven of the eight alleged sixmonth median violations after review of your April 21, 2008, letter. The seven alleged violations were calculated without 180 days of sample characterized discharge. The last remaining alleged six-month median violation was calculated and supported with 180 days of sample characterized discharge, and clearly exceeded the Permit's discharge limitation. At this point, no other reduction in the number of alleged violations is warranted.

Since the Complaint has been amended, the Regional Board has established new deadlines. If your clients intend to waive their right to a hearing before the Regional Board, you or your clients must sign and return the enclosed waiver form with a \$24,000 cashier's check made out to the "State Water Resources Control Board," by 5:00 p.m. **Thursday, June 19, 2008.** Waiver of the hearing constitutes admission of the validity of the allegation of violations in the Amended Complaint and acceptance of the assessment of civil liability in the amount of \$24,000. In addition, you must publish the

California Environmental Protection Agency



June 16, 2008. Verification that the notice has been published must be submitted to the Regional Board no later than June 26, 2008.

Public Hearing

If your clients do not elect to waive their right to a public hearing, or verification that the newspaper notification has not been received by May 13, 2008, a hearing is tentatively scheduled to be held at the Regional Board meeting on August 13, 2008. In order for the Regional Board to fully consider any argument on your clients' behalf, you should submit twenty copies of all documents, including exhibits you intend to provide the Regional Board by 5:00 p.m. Thursday, July 14, 2008. Copies of material submitted will be forwarded to the Regional Board Members. An agenda for the hearing will be mailed to you not less than ten days before the hearing date.

The heading portion of this letter includes a Regional Board code number noted after "in reply refer to:" In order to assist us in the processing of your correspondence please include this code number in the heading or subject line portion of all correspondence and reports to the Regional Board pertaining to this matter.

Please contact Frank Melbourn at (858) 467-2973 or via e-mail at fmelbourn@waterboards.ca.gov if you have any questions concerning this matter.

Respectfully,

Michael P. McCann

Assistant Executive Officer

MPM:mja:ftm

- Enclosures: 1. Amended Complaint No. R9-2008-0019
 - 2. Waiver of Public Hearing Form
 - 3. Public Hearing Notice

Copies with enclosures to:

- 1. Ken Greenberg, U.S. EPA, Region 9, greenberg.ken@epa.gov
- 2. Eileen Maher, San Diego Unified Port District, emaher@portofsandiego.org

Regulatory Measure ID: 342499

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN DIEGO REGION

IN THE MATTER OF:

WILLIAM AND HEIDI DICKERSON, AND PERRY & PAPENHAUSEN CONSTRUCTION, INC.)))
VIOLATIONS OF EFFLUENT LIMITATIONS IN ORDER NO. 2000-90, NPDES NO. CAG919001, GENERAL WASTE DISCHARGE REQUIREMENTS FOR TEMPORARY GROUNDWATER EXTRACTION AND SIMILAR WASTE DISCHARGES TO SAN DIEGO BAY AND STORM DRAINS OR OTHER CONVEYANCE SYSTEMS TRIBUTARY THERETO	AMENDED COMPLAINT NO. R9-2008-0019 FOR ADMINISTRATIVE CIVIL LIABILITY WITH MANDATORY MINIMUM PENALTIES May 20, 2008 May 20, 2008
501 FIRST STREET, CORONADO, CA WDID NO. 9 000001411	,))

WILLIAM AND HEIDI DICKERSON, AND PERRY & PAPENHAUSEN CONSTRUCTION, INC. ARE HEREBY GIVEN NOTICE THAT:

- 1. William and Heidi Dickerson, and Perry & Papenhausen Construction, Inc. (hereinafter Dischargers) are alleged to have violated provisions of law for which the California Regional Water Quality Control Board, San Diego Region (Regional Board) may impose civil liability pursuant to Water Code section 13385. The violations alleged herein include violations of effluent limitations prescribed by waste discharge requirements for discharges of pollutants from point sources to navigable waters. The Regional Board must impose mandatory minimum penalties (MMPs) for the violations alleged in this complaint.
- 2. On September 8, 2005, the Dischargers submitted a signed certification and permit application to the Regional Board to discharge extracted and treated groundwater from their single family residential home construction site to San Diego Bay pursuant Order No. R9-2000-90, NPDES Permit No. CAG919001, General Waste Discharge Requirements for Temporary Groundwater Extraction and Similar Waste Discharges to San Diego Bay and Storm Drains or Other Conveyance Systems Tributary Thereto (Dewatering Permit).
- 3. On June 22, 2006, the Regional Board enrolled the Dischargers under the Dewatering Permit subject to its numeric effluent limitations and established a groundwater discharge limitation of 500,000 gallons per day.

William and Heidi Dickerson, and 2 Perry & Papenhausen Construction, Inc. Amended Complaint No. R9-2008-0019 for Administrative Civil Liability with Mandatory Minimum Penalties

- 4. The Water Code includes provisions for MMPs for serious and chronic violations of waste discharge requirements applying to surface water discharges. (Wat. Code, § 13385, subds. (h) & (i).)
- 5. Each serious violation defined as an exceedance of an effluent limitation for a Group I pollutant, as specified in Appendix A to Section 123.45 of Title 40 of the Code of Federal Regulations (CFR) by 40 percent or more, or for a Group II pollutant, as specified in Appendix A to Section 123.45 of Title 40 of the (CFR), by 20 percent or more, is subject to a \$3,000 MMP. Furthermore, the occurrence of four or more chronic violations, defined as any effluent limitation violation, in any six-month period triggers the assessment of a \$3,000 MMP for the fourth violation and each subsequent violation during the six-month period.
- 6. The Dischargers reported effluent sampling results to the Regional Board pursuant to the Dewatering Permit's Monitoring and Reporting schedule. See Table 1, Summary of Reported Results (attached).

ALLEGATIONS

- 8. The Dischargers reported to the Regional Board sampling results from July 2006 (discharge initiation) until February 2007 (discharge cessation). See attached laboratory results. The Regional Board used these results to calculate the sixmonth median for copper. See Table 2, Calculation of 6-Month Median for Copper (attached). The Regional Board incorporated these results in determining the total number of MMPs. See Table 3, Summary of Effluent Violations (attached).
- 9. Under subdivisions (h) and (i) of Section 13385 of the Water Code, the Regional Board must impose MMPs of \$24,000 for the alleged violations of effluent limitations, as determined by the following:
 - a. For September 7, 2006, the reported concentration of copper in monitoring reports submitted by the Dischargers was 6.35 ug/L exceeding the instantaneous maximum effluent limitation for copper of 4.8 ug/L. The reported result exceeds the effluent limit by greater than 20%; therefore this is a serious violation and satisfies the MMP requirements.
 - b. For October 18, 2006, the reported concentration of copper in monitoring reports submitted by the Dischargers was 116.00 ug/L exceeding the instantaneous maximum effluent limitation for copper of 4.8 ug/L. The

William and Heidi Dickerson, and 3
Perry & Papenhausen Construction, Inc.
Amended Complaint No. R9-2008-0019 for
Administrative Civil Liability with
Mandatory Minimum Penalties

- reported result exceeds the effluent limitation by greater than 20%; therefore this is a serious violation and satisfies the MMP requirements.
- c. For December 1, 2006, the concentration of copper reported by the Dischargers was 13.50 ug/L exceeding the instantaneous maximum effluent limitation for copper at 4.8 ug/L. The result exceeds the effluent limitation by greater than 20%; therefore this is a serious violation and satisfies the MMP requirements.
- d. For December 12, 2006, the concentration of copper reported by the Dischargers was 6.06 ug/L exceeding the instantaneous maximum effluent limitation for copper at 4.8 ug/L. The result exceeds the effluent limitation by greater than 20%; therefore this is a serious violation and satisfies the MMP requirements.
- e. For December 19, 2006, the concentration of copper reported by the Dischargers was 11.20 ug/L exceeding the instantaneous maximum effluent limitation for copper of 4.8 ug/L. The result exceeds the effluent limitation by greater than 20%; therefore this is a serious violation and satisfies the MMP requirements.
- f. For January 9, 2007, the concentration of copper reported by the Dischargers was 5.66 ug/L exceeding the instantaneous maximum effluent limitation for copper at 4.8 ug/L. Although the result did not exceed the limitation by greater than 20%; the violation was at least the fourth effluent violation in a six-month period and therefore triggers the mandatory assessment of a \$3,000 penalty.
- g. For February 6, 2007, the concentration of copper reported by the Dischargers was 5.69 ug/L exceeding the instantaneous maximum effluent limitation for copper at 4.8 ug/L. Although the result did not exceed the limitation by greater than 20%; the violation was at least the fourth effluent violation in a six-month period and therefore triggers the mandatory assessment of a \$3,000 penalty.
- h. For February 6, 2007, based upon submitted results the six month median concentration for copper was 6.35 ug/L, exceeding the copper effluent limitation at 3.1 ug/L. The violation is a serious violation because it violates the limitation by more than 20%, and therefore satisfies the MMP requirements.

William and Heidi Dickerson, and 4
Perry & Papenhausen Construction, Inc.
Amended Complaint No. R9-2008-0019 for
Administrative Civil Liability with
Mandatory Minimum Penalties

PROPOSED CIVIL LIABILITY

10. Pursuant to sections 13385 (h) and (i) of the Water Code, the Regional Board must impose mandatory minimum penalties in the amount of twenty-four thousand dollars (\$24,000) (\$3,000 for each of eight serious and chronic violations) on William and Heidi Dickerson, and Perry & Papenhausen Construction, Inc.

Discretionary civil liability above the mandatory minimum for the violations alleged in this Complaint is not recommended.

Dated this 20th day of May 2008.

MICHAEL P. McCANN Assistant Executive Officer

Signed pursuant to the Authority delegated by the Executive Officer to the Assistant Executive Officer

CIWQS Entries

Party IDs: 339977, 330741

Place ID: 640111

Regulatory Measure ID: 342499

Violation IDs: 458911, 458912, 737060, 522801, 737119, 522803, 522804, 737117

ACL Amended Complaint for MMP R9-2008-0019

Violation Date	Constituent	Effluent Limitation	Unit	Permitted Limit	Reported Value
8/9/2006	Copper	instantaneous maximum	ug/L	4.8	ND
9/7/2006	Copper	instantaneous maximum	ug/L	4.8	6.35
10/18/2006	Copper	instantaneous maximum	ug/L	4.8	116.00
10/30/2006	Copper	instantaneous maximum	ug/L	4.8	ND
12/1/2006	Copper	instantaneous maximum	ug/L	4.8	13.50
12/12/2006	Copper	instantaneous maximum	ug/L	4.8	6.06
12/19/2006	Copper	instantaneous maximum	ug/L	4.8	11.20
1/9/2007	Copper	instantaneous maximum	ug/L	4.8	5.66
2/6/2007	Copper	instantaneous maximum	ug/L	4.8	5.69

ND = Non-Detect

The Reporting Limit (RL) for the copper analysis was 5 ug/L

Table 1. Summary of Reported Results

Dickerson Residence 501 First St., Coronado, CA 6-month Median for Copper General Dewatering Permit R9-2000-0090

Date	Reported Copper Value (ug/L)	6-month (180-days) median (ug/L)	Violation >3.1 ug/L
8/9/2006	ND	N/A	N/A
9/7/2006	6.35	N/A	N/A
10/18/2006	116.00	N/A	N/A
10/30/2006	ND	N/A	N/A
12/1/2006	13.50	N/A	N/A
12/12/2006	6.06	N/A	N/A
12/19/2006	11.20	N/A	N/A
1/9/2007	5.66	N/A	N/A
2/6/2007	5.69	6.06	Yes

Date discharge began: 7 JUL 2006.

180 days from 9 AUG 2006 (first copper sample collection result) is 5 FEB 2007.

Non-Detects are not used in the calculation of the median.

6-month median limit = 3.1 ug/L

Table 2. Calculation of 6-Month Median for Copper ACL Amended Complaint for MMP R9-2008-0019

Amended Complaint No. R9-2008-0019 Dickerson Residence 501 First St., Coronado, CA

Violation Date	Constituent	Effluent Limitation	Unit	Permitted Limit	Reported Value*	Serious Violation	Mandatory Minimum Penalty
9/7/2006	Copper	instantaneous max.	ug/L	4.8	6.35	Yes	\$3,000
10/18/2006	Copper	instantaneous max.	ug/L	4.8	116.00	Yes	\$3,000
12/1/2006	Copper	instantaneous max.	ug/L	4.8	13.50	Yes	\$3,000
12/12/2006	Copper	instantaneous max.	ug/L	4.8	6.06	Yes	\$3,000
12/19/2006	Copper	instantaneous max.	ug/L	4.8	11.20	Yes	\$3,000
1/9/2007	Copper	instantaneous max.	ug/L	4.8	5.66	No	\$3,000
2/6/2007	Copper	instantaneous max.	ug/L	4.8	5.69	No	\$3,000
2/6/2007	Copper	6-month median	ug/L	3.1	6.06	Yes	\$3,000
TOTAL PENALTY				\$24,000			

^{*6-}month median values were not reported by the Dischargers. The Regional Board calculated the 6-month median using the Discharger's reported instantaneous values as shown in Table 2.

Copper is a Group II Pollutant

Linda S. Adams Secretary for Environmental Protection

California Regional Water Quality Control Board

San Diego Region

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WAIVER

OF RIGHT TO A PUBLIC HEARING

Mr. Richard Opper, Esq.
Opper and Varco LLP
Representing: William and Heidi Dickerson,
and Perry & Papenhausen Construction, Inc.
225 Broadway, 19th Floor
San Diego, California 92101-5005

Amended Complaint
No. R9-2008-0019
for
Administrative Civil Liability
With
Mandatory Minimum Penalties

\$24,000

WDID No. 9 000001411 501 First Street, Coronado, California

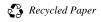
By signing below, I agree to waive William and Heidi Dickerson, and Perry & Papenhausen Construction, Inc.'s right to a public hearing before the California Regional Water Quality Control Board, San Diego Region regarding the violations alleged in the above referenced Complaint and to remit payment for the imposed civil liability. I understand that I am authorized to give up William and Heidi Dickerson, and Perry & Papenhausen Construction, Inc.'s right to be heard and to argue against the allegations made by the Assistant Executive Officer in the Complaint, and against the imposition of, or the amount of, the proposed civil liability. I have enclosed a cashier's check or money order made payable to the State Water Resources Control Board for the imposed civil liability.

Signature	Title	Date
Print your name		

Send this signed form to:

Michael P. McCann, Assistant Executive Officer C/O Compliance Assurance California Regional Water Quality Control Board, San Diego Region 9174 Sky Park Court, Suite 100 San Diego, CA 92123-4340

California Environmental Protection Agency



NOTICE OF WAIVER OF PUBLIC HEARING

California Regional Water Quality Control Board, San Diego Region
Issuance of Administrative Civil Liability (ACL) Order
With Mandatory Minimum Penalties against
William and Heidi Dickerson, and Perry & Papenhausen Construction, Inc.
501 First Street, Coronado, California

On May 20, 2008, the California Regional Water Quality Control Board, San Diego Region (Regional Board) issued Amended Complaint No. R9-2008-0019 to William and Heidi Dickerson, and Perry & Papenhausen Construction, Inc. in the amount of \$24,000 for alleged violations of Regional Board Order No. R9-2000-0090, NPDES Permit No. CAG919001 Waste Discharge Requirements for Temporary Groundwater Extraction and Similar Waste Discharges to San Diego Bay and Storm Drains or Other Conveyance Systems Tributary Thereto. William and Heidi Dickerson, and Perry & Papenhausen Construction, Inc. have elected to waive their right to a public hearing in this matter. Waiver of the hearing constitutes admission of the validity of the allegation of violations in the Complaint and acceptance of the assessment of civil liability in the amount of \$24,000 as set forth in the Complaint. The Regional Board will consider accepting the waiver at its August 13, 2008, meeting.

Written comments regarding the allegations contained in Amended Complaint No. R9-2008-0019, and/or acceptance of the waiver, will be accepted through Monday, July 14, 2008.

The Regional Board's August 13, 2008, meeting will be at the Regional Board office located at 9174 Sky Park Court, San Diego, California. The meeting will begin at 9:00. a.m. Oral comments for this item may be made during the meeting upon receipt of a request to speak slip. For more information regarding this matter please call Frank Melbourn at (858) 467-2952 or visit the Regional Board's web site at www.waterboards.ca.gov/sandiego/

Michael P. McCann Assistant Executive Officer

Attachment 1 - Exhibit B ACL Tent. Order No. R9-2009-0084

See Item No. 6b, Doc. No. 3

Attachment 2 Federal Settlement Agreement

(35)

San Diego Unified Port District

Document No. _____53856

Filed AUG 1 9 2008

SETTLEMENT, RELEASE, AND WAIVER AGREEMENT

This Settlement, Release and Waiver Agreement ("Agreement") is entered into between Defendant THE SAN DIEGO UNIFIED PORT DISTRICT (hereinafter "Port"), Defendant UNITED STATES ARMY CORPS OF ENGINEERS (hereinafter "Army Corps"), and Plaintiffs Mr. Larry Gunning and Mrs. Penelope Gunning, Mr. William and Mrs. Heidi Dickerson (hereinafter "Plaintiffs"). The Port and Army Corps are sometimes referred to collectively as "Defendants". Defendants and Plaintiffs are sometimes referred to collectively as the "Parties" or singularly as "Party".

INTRODUCTION

Whereas, on May 23, 2005, Mr. & Mrs. Dickerson (501 First Street), applied for an Army Corps permit to remove and replace existing rip rap for improved appearance and maintenance of shoreline protection. After the application was reviewed by several other agencies, and conditions to protect essential fish habitat were added, on October 21, 2005, the Army Corps conditionally verified authorization of Nationwide Permit 3 for the rip rap maintenance and improvement project.

Whereas, during 2005 and 2006 the rip rap was removed and seawalls built bayward of properties at 501 First Street (Dickerson), and 505 First Street (Gunning), Coronado, California. The rip rap was not restored.

Whereas, the Army Corps on behalf of the United States, pursuant to the Clean Water Act, on June 26, 2006, issued a notice of alleged violations of the Clean Water Act to Plaintiffs, William "Bill" and Heidi Dickerson and Plaintiffs' construction contractor, Mr. Fred C. Perry, Perry and Papenhausen Construction, regarding the property at 501 First Street. The Army Corps on behalf of the United States and pursuant to the Clean Water Act, on June 26, 2006, also issued a notice of alleged violations of the Clean Water Act to Plaintiffs Larry and Penny Gunning, and Plaintiffs' construction contractor Mr. Fred C. Perry, Perry and Papenhausen Construction, regarding the property at 505 First Street. The seawalls were allegedly built on a location within the jurisdiction of the federal Clean Water Act without any Army Corps permit. The seawalls were also allegedly built on and encroached into property within the jurisdiction of the Port. At the time, the Dickersons had an Army Corps permit to maintain and improve the rip rap (by removing the existing rip rap and replacing it with quarry stone rip rap). The Gunnings had no permit to remove the rip rap.

Whereas, on October 18, 2006, the Army Corps advised the Dickersons that the Nationwide Permit authorization had been invalidated as a result of revocation of other required approvals.

Whereas, on August 16, 2007, the United States Department of Justice, through the United States Attorney's Office for the Southern District of California, at the request of the Army Corps, notified Plaintiffs that it may bring a federal court civil action for alleged violations of the Clean Water Act.

Whereas, on December 5, 2007; Plaintiffs filed a second amended complaint in the matter entitled SLPR, LLC, et al. v. the San Diego Unified Port District, United States Army Corps of Engineers, United States Navy, et al., United States District Court, Southern District of California, Case No. 06 CV 1327 W (POR) (hereinafter "Federal Case") against the Port for Nuisance (First Cause of Action), Cal. Civ. Code section 832 (Second Cause of Action) and Inverse Condemnation (Third Cause of Action), and against the Army Corps for Administrative Procedures Act Claim re Dredging without Protective Measures (Fifth Cause of Action), Administrative Procedures Act Claim re Finding of Violation of Clean Water Act (Seventh Cause of Action), and Declaratory Relief - 28 U.S.C sections 2201, 2202 (Eighth Cause of Action). On April 4, 2008, Plaintiffs filed a case entitled SLPR, LLC, et al., v. the San Diego Unified Port District, et al., San Diego Superior Court Case No. 37-2008-00079175-CU-OR-CTL, to Establish Boundary and Quiet Title, for Nuisance, Injunctive Relief and Damages under California Civil Code section 832, and Inverse Condemnation (hereinafter "State Case"). These matters, including the alleged Port jurisdiction encroachment, the alleged Clean Water Act violations, and the matters alleged by the Plaintiffs are sometimes collectively referred to as "the Actions".

Whereas, the Actions, as to these Plaintiffs only, generally involve two seawalls constructed by these named Plaintiffs on the bayside of their properties located at 501 and 505 First Street, Coronado, California ("Seawalls"), the removal and failure to replace the rip rap bayward of said properties, and alleged detrimental impacts of such construction on eelgrass in San Diego Bay.

Whereas, the Parties wish to resolve their differences and, therefore, enter into this Agreement to fully settle and discharge all disputed claims and actions arising from or related to the Seawalls, rip rap, eelgrass, Clean Water Act, and encroachment issues cited above, upon the terms and conditions set forth herein.

2. ARMY CORPS PERMITS

The Army Corps will process a Nationwide Permit 32 verification (completed enforcement actions) that will be a final agency action taken on behalf of the Secretary and not subject to further judicial review. The processing will occur upon Plaintiffs' documentation of compliance with the terms and conditions of the nationwide permit program (72 Federal Register 11092-11198 dated March 12, 2007), that allows the activities described in this Agreement, and upon receiving the required concurrences from the appropriate state and federal agencies.

This Agreement does not waive or supersede any permits required by law.

3. SEAWALLS

The Parties have agreed, so far as their power and authority extends, that they will allow the Seawalls bayward of 501 and 505 First Street to remain in their current location, after completion of Sections 4, 5 and 6 of this Agreement.

4. FOOTING OF SEAWALLS

The Plaintiffs will remove that portion of footings of the Seawalls that lie within both the Port jurisdiction and Clean Water Act jurisdiction, in substantial compliance with the specifications and map attached as Exhibit A (Technical Specifications), and Attachment 1 to Exhibit A, and incorporated herein, to the satisfaction of Port. The Port has authorized this work in Emergency Coastal Development Permits on file with the Office of the District Clerk as Document Nos. 52045 and 52046, filed on June 7, 2007, and drawings dated March 4, 2007, updated March 26, 2007, and prepared by GeoSoils, Inc., and two letters of CEQA determination dated June 4, 2007. By this Agreement, the drawings dated March 26, 2007, are superseded and replaced by the drawings attached as Exhibit A, Attachment 2. No further permits are required from the Port before the work contemplated in this Agreement may occur. This work may not be started until after the Army Corps, and any other appropriate entities, issues appropriate permit(s) for each property.

REPLACEMENT OF REMOVED RIP RAP WITH QUARRY STONE

The Plaintiffs will replace the rip rap that was removed from the beach with quarry stone similar or identical to the stone used by the City of Coronado at the adjacent property, at the foot of I Street, and further described in Exhibit A, ("Quarry Stone"), to the satisfaction of the Port and the Army Corps, in substantial compliance with Exhibit A and Attachment 2 to Exhibit A, incorporated herein. And, as will be more particularly described in Plaintiffs' applications to the Army Corps for verifications of Nationwide Permit 32 applicability, such details include but are not limited to coverage by the Quarry Stone to not less than 20 feet bayward of the face of the Seawalls.

The Port has authorized this work in Emergency Coastal Development Permits on file with the Office of the District Clerk as Document Nos. 52045 and 52046, filed on June 7, 2007, and drawings dated March 4, 2007, updated March 26, 2007, and prepared by GeoSoils, Inc., and two letters of CEQA determination dated June 4, 2007. By this Agreement, the drawings dated March 26, 2007, are superseded and replaced by the drawings attached as Exhibit A, Attachment 2. No further permits are required from the Port before the work contemplated in this Agreement may occur.

This work may not be started until after the Army Corps, and any other appropriate entities, issues all appropriate permit(s) for each property.

6. MITIGATION FOR LOSS OF EELGRASS HABITAT

The Plaintiffs will mitigate for any detrimental impacts to eelgrass habitat caused by the matters in the Actions, by replacing suitable eelgrass habitat to the satisfaction of

Page 3 of 13

the Army Corps and under the supervision of the Port's Environmental Services Department, as more particularly described in Exhibit A, and Attachment 3 to Exhibit A, incorporated herein. In general, any eelgrass habitat mitigation occurring under this Agreement must follow the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries' Service Southern California Eelgrass Mitigation Policy and will encompass restoring eelgrass habitat to 1.2 times the area impacted by the Plaintiffs.

It is not the intent of this Agreement to make the Plaintiffs responsible for any necessary eelgrass replacement or mitigation that may be required as a result of the operation of the adjacent municipal storm drain, or that was otherwise not caused by the Plaintiffs' efforts.

7. FINAL SETTLEMENT

This Agreement is a final and complete settlement of the claims between the Plaintiffs and Defendants, as well as full, final, and complete settlement of the Actions and any or all claims Plaintiffs and Defendants may have against one another regarding the Actions, whether known or unknown, present or future, as more particularly described below in Section 13, Releases, and Section 16, Waiver of Section 1542. The Port and the Army Corps will not seek further fees, fines or legal penalties from Plaintiffs regarding the construction of the Seawalls in their current location, for the removal of the rip rap, or damage to eelgrass habitat.

This Agreement does not, however, limit or cap the expenses and costs to be born jointly and severally (and exclusively) by the Plaintiffs to effect the modification of the footings of the Seawalls, to restore the rip rap with Quarry Stone, and to restore the eelgrass habitat impacted by Plaintiffs' activities in accordance with NOAA standards.

8. AGREEMENT TO COOPERATE

The Army Corps and Port will work cooperatively with the Plaintiffs to process the necessary paperwork for issuance of any permits necessary for the work contemplated in this Agreement.

The Port will make diligent efforts to assist the Plaintiffs in reaching agreements and accommodations consistent with this Agreement with the San Diego Regional Water Quality Control Board, an agency that has asserted jurisdiction over some of the matters at issue in the Actions.

9. AGREEMENT NOT A WAIVER OF REQUIRED PERMITS

This Agreement addresses all permits required by the Army Corps and Port for the matters addressed in this Agreement. This Agreement does not waive any permits required by law or compliance with the terms and conditions of all permits. Proper permits must be obtained from all appropriate agencies before any work contemplated in this Agreement may commence. Plaintiffs acknowledge they must comply with the terms and conditions of all permits.

This Agreement is not and should not be interpreted to be a permit or modification of any existing permit issued by the Army Corps under the Clean Water Act, 33 U.S.C. §§ 1251 et seq., or any other law. Except as specifically stated, nothing in this Agreement shall limit the Army Corps' ability to issue, modify, suspend, revoke or deny any individual permit or nationwide, or regional general permit. Nothing in this Agreement limits the Army Corps' ability to exercise its authority pursuant to the Clean Water Act and other laws in the future.

Upon completion of the terms and conditions of this Agreement, its Technical Specifications, and all applicable permits, the Plaintiffs agree to not adversely impact eelgrass restoration that may occur under this Agreement.

10. JUDGE TO RETAIN JURISDICTION TO INTERPRET AND ENFORCE THE AGREEMENT

The Parties have consented to have the District Court (through Magistrate Judge Louisa S. Porter or her successor), retain jurisdiction over his Agreement for a period of five (5) years, including, but not limited to, the resolution of disputes that may arise in the assessment of responsibility for the replacement and/or mitigation for loss of eelgrass.

11. PAYMENTS, PENALTIES, COSTS, AND EXPENSES

All obligations for payment, costs, and expenses are joint and several among the Plaintiffs.

The Plaintiffs will pay to the Port and the Port shall accept as payment, the sum of TWENTY FIVE THOUSAND DOLLARS (\$25,000.00). Said payment may be made by personal or cashier's check made payable to the San Diego Unified Port District. Said payment shall be received by counsel of record for the Port (Leslie FitzGerald) not later than thirty (30) days after the Effective Date of the Agreement or no later than the issuance of all permits required by the Port for the performance of all activities in this Agreement, whichever is later.

The Plaintiffs will pay a civil penalty to the United States in the sum of TWO HUNDRED FIFTY THOUSAND DOLLARS (\$250,000.00). Said payment shall be made by cashier's check made payable to the U. S. Treasury. Said payment shall be received by counsel of record for the Army Corps (Assistant U. S. Attorney, Thomas B. Reeve, Jr.) not later than thirty (30) days after the Effective Date of the Agreement or no later than the issuance of all permits required by the Port and the Army Corps for the performance of all activities in this Agreement, whichever is later.

Such civil penalty to the United States is a penalty within the meaning of Section 162(f) of the Internal Revenue Code, 26 U. S. C. §162(f) or 26 C.F.R. § 1.126-21, and are not tax deductible expenditures for purposes of federal law.

12. LATE PAYMENTS

In the event any of the above payments are late, the recipient may seek appropriate sanctions from the Magistrate Judge. Additionally, regardless of whether sanctions are sought from the Magistrate Judge, the late party shall incur a daily-compounded interest penalty, at the rate provided in 28 U.S.C. § 1961, that will be added to the sum due.

All costs and expenses of removing the footing of the Seawalls from the Port's jurisdiction, restoration of the rip rap with Quarry Stone, and the eelgrass mitigation and monitoring shall be born by Plaintiffs, as their joint and several obligations under this Agreement.

13. RELEASES

Upon the issuance of all permits required by the Port and the Army Corps to perform all activities in this Agreement and in consideration of the terms herein, Plaintiffs do hereby fully and forever completely release, acquit, and discharge Defendants, together with any and all past and present employees, agents (whether ostensible or actual), officers and commissioners and their successors, insurance carriers, departments, or representatives, (collectively "Defendant Releasees") from any and all claims, demands, damages, wages, costs, attorneys' fees, rights or causes of action, whether known or unknown, past, present or future which Plaintiffs may have against the Defendant Releasees, or any of them, that arise from, or are directly or indirectly related to, or are connected with, any of the facts or circumstances alleged in the Actions or in any way connected with the subject matter of the Actions, including claims for violations of any federal, state or local statute, ordinances, public policy or common law.

In consideration of the terms herein, Port does hereby fully and forever completely release, acquit, and discharge Plaintiffs and their successors (collectively "Plaintiff Releasees") from any and all claims, demands, damages, wages, costs, attorneys' fees, rights or causes of action, whether known or unknown, past, present or future which the Port may have against the Plaintiff Releasees, or any of them, that arise from, or are directly or indirectly related to, or are connected with, any of the facts or circumstances alleged in the Actions or in any way connected with the subject matter of the Actions, including claims for violations of any federal, state or local statute, ordinances, public policy or common law, except as otherwise provided in this Agreement, and specifically limited to the Seawalls, footings, rip rap, and eelgrass issues resolved herein.

In consideration of the terms herein, Army Corps does hereby fully and forever completely release, acquit and discharge Plaintiff Releasees from any and all claims, demands, damages, wages, costs, attorneys' fees, rights or causes of action, whether known or unknown, past, present or future which Army Corps may have against the Plaintiff Releasees, or any of them that arise from, or are directly or indirectly related to, or are connected with, any of the facts or circumstances alleged in the notices of violations, including claims for violations of any federal, state or local statute,

ordinances, public policy or common law, except as otherwise provided in this Agreement, and specifically limited to the Seawalls, footings, rip rap and eelgrass issues resolved herein.

The Parties agree this is a specific, not a general, release. This Agreement in no way affects the rights of the United States or any of its agencies, as to any claims, defenses, causes of action, matters or issues not specifically resolved by this Agreement. This Agreement is not intended to bind any agency other than those which are signatories to it, and whatever rights and remedies that are available to the San Diego Regional Water Quality Control Board or the State Water Resources Control Board are not intended to be waived by these Parties.

14. DEFENSE AND INDEMNITY

To the fullest extent permitted by law, Plaintiffs shall defend, indemnify and hold the Defendants and their appointed officials, officers, agents and employees harmless from and against any and all claims, damages, liability, judgments, proceedings, demands, losses and expenses (including reasonable attorneys' fees) that the Defendants may sustain or incur in any manner resulting from Plaintiffs' performance of the terms of this Agreement, including the construction or presence of the Seawalls (including removal of the footing) or the installation of Quarry Stone, including but not limited to loss of or damage to property, injuries or death. This responsibility for defending against claims related to the Quarry Stone ends upon the satisfactory placement of the material as rip rap on the tidelands.

15. DISMISSALS

Plaintiffs shall cause their attorney to draft a Joint Motion for Dismissal with prejudice as to Port and Army Corps in the Federal Case and to execute and file a request for dismissal with prejudice as to Port in the State Case. Plaintiffs' counsel will provide Port counsel with a conformed copy of the dismissal in the State Case.

16. WAIVER OF SECTION 1542

As to the matters released by this Agreement, the Parties expressly waive all rights under Section 1542 of the California Civil Code and of any comparable principle of law, whether by statute or decision. Section 1542 provides as follows:

"A general release does not extend to the claims which the creditor does not know or suspect to exist in his favor at the time of the execution of the release, which if known by him must have materially affected his settlement with the debtor."

This Agreement expressly includes a discharge of all unknown and unsuspected claims, except as to the rights of the Army Corps and other federal entities, which are not waived (this provision in no way affects the rights of the United States or any federal entity as to any claims, defenses, causes of action, matters or issues for each parcel and any party not specifically resolved by this Agreement). The Parties understand and

acknowledge the consequences of this waiver. However, as stated in Section 17 of this Agreement, upon completion of the activities set forth in Sections 4, 5 and 6 of this Agreement, the Army Corps and the Port shall issue letters stating that all issues have been resolved and no further action will be taken against Mr. Fred C. Perry or Perry and Papenhausen Construction, Inc. for matters under this Agreement.

17. PERRY AND PAPENHAUSEN CONSTRUCTION

In light of the Clean Water Act violations alleged by the Army Corps in June 26, 2006 notices of violations addressed to Mr. Fred C. Perry in addition to the Plaintiffs, the Army Corps shall issue a letter to Mr. Fred C. Perry individually and Perry and Papenhausen Construction, Inc. upon completion of the activities set forth in Sections 4, 5, and 6 of this Agreement, stating that all Clean Water Act violations alleged by the Army Corps in the notice have been resolved, that administrative closure has been achieved, and that no further enforcement action will be taken by the Army Corps against Mr. Fred C. Perry or Perry and Papenhausen Construction, Inc. for matters covered under the June 26, 2006 notices.

The Port shall issue a letter to Mr. Fred C. Perry individually and Perry and Papenhausen Construction, Inc. upon completion of the activities set forth in Sections 4, 5 and 6 of this Agreement, stating that all violations related to the Actions for alleged encroachment on to Port jurisdiction property have been resolved and no further action will be taken by the Port against Mr. Fred C. Perry or Perry and Papenhausen Construction, Inc. for matters covered under this Agreement.

Other than these letters to Mr. Fred C. Perry and Perry and Papenhausen Construction, Inc., this Agreement in no way affects the rights of the Port, the United States and the Army Corps as against any person or entity not a party to this Agreement.

18. NO PRIOR ASSIGNMENT OR TRANSFER

Each Party to this Agreement represents and warrants that there has been no assignment or other transfer of any claims or causes of action which they are releasing pursuant to the terms of this Agreement.

19. NO ADMISSION OF GUILT OR WRONGDOING

Plaintiffs enter into this Agreement in the spirit of compromise and with a desire to rectify regulatory errors they may have committed. This Agreement is not an admission of guilt or wrongdoing and rather represents a compromise resolution of alleged regulatory violations and encroachment issues in a manner that is mutually acceptable to the Parties.

20. TIMELINES FOR PERFORMANCE

The Plaintiffs shall begin immediately to prepare an eelgrass mitigation plan pursuant to Section 6 of this Agreement. The Plaintiffs' eelgrass mitigation plan shall be presented to the Army Corps and the Port within not more than 60 days after the Effective Date of this Agreement. Plaintiffs shall implement the eelgrass mitigation plan in accordance with the timeframes specified in the plan as approved by the Army Corps.

The Plaintiffs, within not more than 30 days of issuance of necessary permits (which they will forthwith and diligently pursue), shall begin the footing removal and rip rap replacement.

21. MISCELLANEOUS PROVISIONS

A. Entire Agreement

This Agreement constitutes the full and entire Agreement of the claims between the Parties, and such Parties acknowledge that there is no other claim Agreement, oral and/or written, between the Parties.

B. Authority to Enter Agreement

This Agreement is the result of arms-length negotiations. Each Party to this Agreement represents and warrants to the others that the persons executing this Agreement on behalf of such Party are duly and fully authorized to do so, and that each such Party is acting pursuant to the power and authority granted by their respective principals, and that no further approvals are required to be obtained from any persons or entities.

C. Final Agreement

The Parties to this Agreement, and each of them, acknowledge that (1) this Agreement and its reduction to final form is the result of extensive good faith negotiations; (2) counsel for the Parties has carefully reviewed and examined this Agreement before execution by said Parties, or any of them; and (3) any statute or rule of construction that ambiguities are to be resolved against the drafting Party should not be employed in the interpretation of this Agreement.

D. Binding Agreement

This Agreement is and shall be binding upon and shall inure to the benefit of the predecessors, affiliates, subsidiaries, successors, insurance carriers, assigns, parties, agents, officers, employees, shareholders, associates, legal representatives, heirs, executives and/or administrators of each of the Parties hereto.

E. Attorneys' Fees and Costs

All Parties shall bear their own costs and attorneys' fees in connection with the claim, the Actions, and this Agreement.

F. Interpretative Law

This Agreement is made and entered into in the State of California and shall in all respects be interpreted, enforced and governed by and under the laws of the State of California and the laws and regulations of the United States, particularly including the Clean Water Act and NOAA's Southern California Eelgrass Mitigation Policy.

G. Severability

If any provision of this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable for whatever reason, the remaining provisions not so declared shall nonetheless continue in full force and effect without being impaired in any manner whatsoever.

H. Modifications

This Agreement may be amended or modified only by a writing signed by all Parties to this Agreement. Modifications affecting the rights or obligations of the Port shall first be approved by the Board of Port Commissioners.

I. Paragraph Headings

Paragraph headings are for reference only and shall not affect the interpretation of any paragraph hereto.

J. No Inducement

Each of the Parties to this Agreement acknowledges for itself that it has read this Agreement and fully understands its contents and consequences and has voluntarily executed it. Each of the Parties also warrants that no promise or inducement has been made or offered by any of the Parties, except as set forth herein, and that this Agreement is not executed in reliance upon any statement or representation of any of the Parties or their representatives, concerning the nature and extent of the injuries, damages or legal liability thereof. The Parties further represent that they have been represented by legal counsel during the course of the negotiations leading to the signing of this Agreement, and that they have been advised by legal counsel with respect to the meaning of this Agreement and its legal effect.

K. Counterparts/Original Signature

This Agreement may be executed in counter-parts with the same effect as if all original signatures were placed on one document and all of which together shall be one and the same Agreement. Also, signatures received via facsimile shall have the same force and effect as an original. All Parties shall send their original signature pages to

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attorney Leslie FitzGerald, deputy counsel for the Port. The Port shall retain all original signature pages.

L. Additional Documents

All Parties agree to cooperate fully to take any and all steps, perform any acts, and execute any documents consistent with the terms and conditions of this Agreement, which may be needed or required to effectuate the terms, intent, conditions, covenants, and provisions hereof.

M. Venue

Venue for enforcement of this agreement shall be in the United States District Court, Southern District of California.

N. Dispute Resolution

The Parties hereby agree that if any dispute should arise concerning the terms or enforcement of this Agreement, they promptly will refer the matter to Magistrate Judge Porter or her successor for final resolution within the five (5) years the Court has retained jurisdiction over the Federal Case.

If a dispute arises after the five (5) years, non-binding mediation shall be first attempted. The Parties shall divide equally any mediator fees and costs. If the Parties do not resolve their dispute through mediation and a subsequent court action is filed, the prevailing party in any such action shall recover such costs, fees, and expenses as are appropriate and available under the United States Code and the Federal Rules of Civil Procedure, or other applicable law and rules.

O. Drafter

No provision, principle, or other concept of law or equity wherein the terms and conditions of the Agreement are interpreted against the party who drafted the Agreement shall have any application to this Agreement.

P. Good Faith

The Agreement described herein was made "in good faith" within the meaning of California Code of Civil Procedure section 877.6.

Q. Effective Date

The Parties deem this Agreement effective as of the date when all Parties and their respective counsel have signed the Agreement.

R. Agreement Controls

The terms of this Agreement control and supersede any technical specifications, any drawing, or any notes to drawings that may be done to implement this Agreement or that were completed prior to this Agreement.

S. Execution of Agreement

No Party shall unreasonably withhold execution of the Agreement.

WE HEREBY CERTIFY THAT WE HAVE READ ALL OF THIS SETTLEMENT, RELEASE, AND WAIVER AGREEMENT AND FULLY UNDERSTAND THE SAME, AND IN WITNESS WHEREOF WE HAVE EXECUTED THIS AGREEMENT IN CALIFORNIA.

IT IS SO AGREED:

PLAINTIFFS: LARRY GUNNING) DATED: 8/13/08
Senelone January PENELOPE GUNNING	DATED: 8 / 13 / 08
WILLIAM DICKERSON	DATED:
HEIDLDICKERSON	DATED:

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Settlement, Release and Waiver Agreement - 501/505 First Street, Coronado

R. **Agreement Controls**

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S. **Execution of Agreement**

IT IS SO AGREED:

No Party shall unreasonably withhold execution of the Agreement.

WE HEREBY CERTIFY THAT WE HAVE READ ALL OF THIS SETTLEMENT. RELEASE, AND WAIVER AGREEMENT AND FULLY UNDERSTAND THE SAME, AND IN WITNESS WHEREOF WE HAVE EXECUTED THIS AGREEMENT IN CALIFORNIA.

*	
PLAINTIFFS:	
LARRY GUNNING	DATED:
PENELOPE GUNNING	DATED:
WILLIAM DICKERSON	DATED: 8-12-08
HEIDT BICKERSON	DATED: 17-12-08

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DEFENDANTS:	
SAN DIEGO UNIFIED PORT DISTRICT:	•
Jeffrey B. McEntee, CFO/Treasurer	DATED: 8/13/08
UNITED STATES ARMY CORPS OF ENGINE	ERS:
Karen P. Hewitt, United States Attorney Thomas B. Reeve, Jr., Assistant U.S. Attorney Beth Clukey, Assistant U.S. Attorney Attorneys for Defendant UNITED STATES ARMY CORPS OF ENGINE	DATED:
APPROVED AS TO FORM:	
OPPER & VARCO, LLP Richard G. Opper Attorneys for Plaintiffs MR. LARRY GUNNING, MRS. PENELOPE GUNNING, MR. WILLIAM DICKERSON, MRS. HEIDI DICKERSON	DATED:
Duane E. Bennett, Port Attorney Leslie FitzGerald, Deputy Port Attorney Attorneys for Defendant SAN DIEGO UNIFIED PORT DISTRICT	DATED: 8-13-08

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DEFENDANTS:	
SAN DIEGO UNIFIED PORT DISTRICT:	·
	DATED:
UNITED STATES ARMY CORPS OF ENGINEE	ERS:
Karen P. Hewitt, United States Attorney Thomas B. Reeve, Jr., Assistant U.S. Attorney	DATED: August 19, 2008
Beth Clukey, Assistant U.S. Attorney Attorneys for Defendant UNITED STATES ARMY CORPS OF ENGINE	ER\$
APPROVED AS TO FORM:	
	DATED:
OPPER & VARCO, LLP Richard G. Opper	0ΛTD: <u></u>
Attorneys for Plaintiffs	
MR. LARRY GUNNING, MRS. PENELOPE GUNNING,	
MR. WILLIAM DICKERSON, MRS. HEIDI DICKERSON	
	and the state of the
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y and a contract	DATED:
Duane E. Bennett, Port Attorney Leslie FitzGerald, Deputy Port Attorney	
Attorneys for Defendant SAN DIEGO UNIFIED PORT DISTRICT	
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Page 13 of 13

Settlement, Release and Waiver Agreement - 501/505 First Street, Coronado

DEFENDANTS:	
SAN DIEGO UNIFIED PORT DISTRICT:	
<u></u>	DATED:
UNITED STATES ARMY CORPS OF ENGINE	ERS:
Karen P. Hewitt, United States Attorney Thomas B. Reeve, Jr., Assistant U.S. Attorney Beth Clukey, Assistant U.S. Attorney Attorneys for Defendant UNITED STATES ARMY CORPS OF ENGINE	
APPROVED AS TO FORM:	.ENO
OPPER & VARCO, LLP Richard G. Opper Attorneys for Plaintiffs MR. LARRY GUNNING, MRS. PENELOPE GUNNING, MR. WILLIAM DICKERSON, MRS. HEIDI DICKERSON	DATED: <u>Aug 15, 2008</u>
Duane E. Bennett, Port Attorney Leslie FitzGerald, Deputy Port Attorney Attorneys for Defendant SAN DIEGO UNIFIED PORT DISTRICT	DATED:

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Settlement, Release and Waiver Agreement - 501/505 First Street, Coronado

EXHIBIT A

EXHIBIT A

TECHNICAL SPECIFICATIONS

A. FOOTING OF SEAWALLS

The Plaintiffs will remove the footing of the Seawalls that lies within Port jurisdiction, in substantial compliance with the map attached as Attachment 1. Hand shovels will be used to move sand away from the footing and sidecast or stockpiled landward of the Seawalls. A diamond-blade electric hand saw will cut a groove in the footing to substantially match the location where the footing encroaches on Port lands, as shown on the map provided as Attachment 1. Guided by the saw cut, a jackhammer will then break away the encroaching portion of the footing. The concrete pieces will be collected by hand and transported over dry lands via wheelbarrow, where they will be collected for proper disposal.

The Port will inspect and approve the removal of the part of the Seawalls shown on Attachment 1. The proper permits, including the Army Corps NWP32 verification, must be obtained before the work may be commenced. The final drawings and approved permits from the Army Corps and the Regional Water Quality Control Board must be submitted to the Port prior to construction. Before work may begin, reasonable notice, of not less than 72 hours, must be provided to the Army Corps (through Therese O'Rourke, Section Chief, Army Corps of Engineers, Regulatory Division, 760.602.4830) and the Port (though its Supervisor of Inspections, 619.686.6245). This Agreement does not waive any permits required by law.

B. PLACEMENT OF QUARRY STONE

The Plaintiffs will replace the rip rap that was removed from the beach with Quarry Stone, in substantial compliance with the plans attached as Attachment 2, the Port-issued Emergency Coastal Development Permits on file with the Office of the District Clerk as Document Nos. 52045 and 52046, filed on June 7, 2007, and any other required permits, including the Army Corps Nationwide Permit 32 verification. Rip rap replacement will consist of a filter fabric that will be attached to the Seawalls and underlie the entire revetment structure. The rip rap materials will consist of Quarry Stone (approximately 250 to 1000 pounds each) commencing at the Seawalls at a height not less than above the height of the highest high water (8.01 feet above the Mean Lower Low Water datum). The Quarry Stone will run uninterrupted along the entire length of the Seawalls (approximately 160 feet) and will extend bayward a distance of not less than 20 feet from the face of the Seawalls. At the intersection with neighboring properties, Quarry Stone will be transitioned in order to make a continuous flow with neighboring properties.

During construction, the Plaintiffs will comply with all Best Management Practices, including but not limited to storm water management Best Management Practices as will be set forth in required permits from the Regional Water Quality Control Board. Quarry Stone will be delivered to the upland area of 501 and/or 505

Settlement, Release and Waiver Agreement – 501/505 First Street, Coronado

First Street. A mechanized "skidster" will carry stones from the upland area to a second "skidster" which will operate on the bayshore. This "skidster" will then deposit Quarry Stone along the Seawalls. In turn, construction personnel will employ "breaking bars" to further place the Quarry Stone. All work will be performed during periods of low tide and no construction equipment will work in any open water.

The proper permits must be obtained before the work may be commenced. The final drawings and approved permits from the Army Corps and the Regional Water Quality Control Board must be submitted to the Port prior to construction. Before work may begin, reasonable notice, of not less than 72 hours, must be provided to the Army Corps (through Therese O'Rourke, Section Chief, Army Corps of Engineers, Regulatory Division, 760.602.4830) and the Port (though its Supervisor of Inspections, 619.686.6245). This Agreement does not waive any permits required by law.

C. MITIGATION FOR LOSS OF EELGRASS HABITAT

The Plaintiffs will mitigate for any detrimental impacts to eelgrass habitat caused by the Plaintiffs' activities related to matters in the Actions by replacing suitable eelgrass habitat in accordance with NOAA Fisheries' Southern California Eelgrass Mitigation Policy (Revision 11), attached as Attachment 3, to the satisfaction of the Army Corps and under the supervision of the Port's Environmental Services Department.

The proper permits and approvals must be obtained before the work may be commenced. This Agreement does not waive any permits required by law.

ATTACHMENT 1

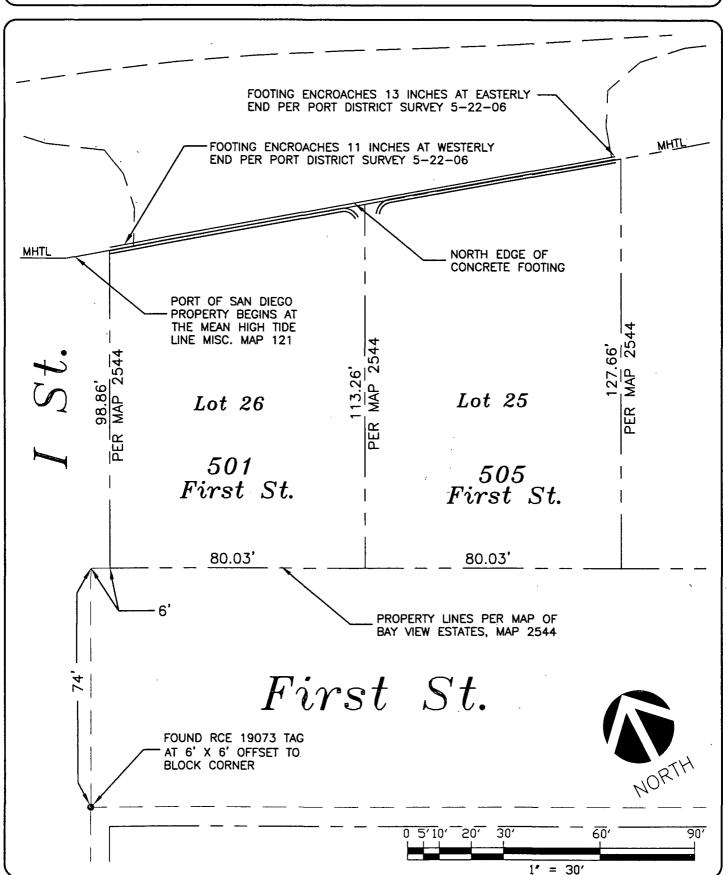


PORT OF SAN DIEGO ENGINEERING SUPPORT LAND SURVEYS

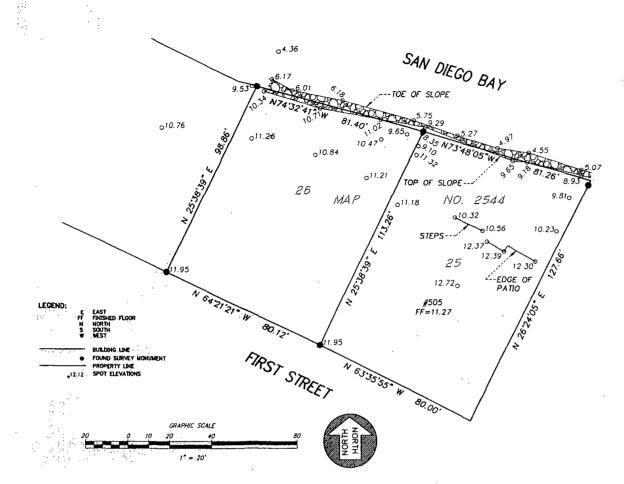
CONCRETE WALL FOOTING ENCROACHMENT

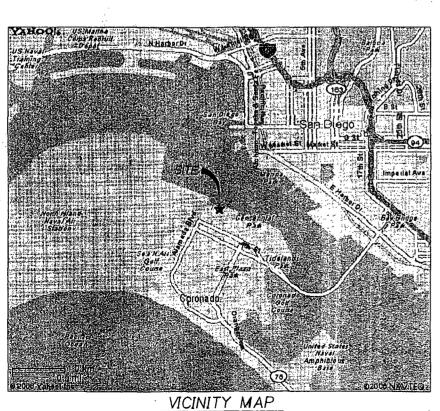
AT 501 AND 505 FIRST STREET, CORONADO

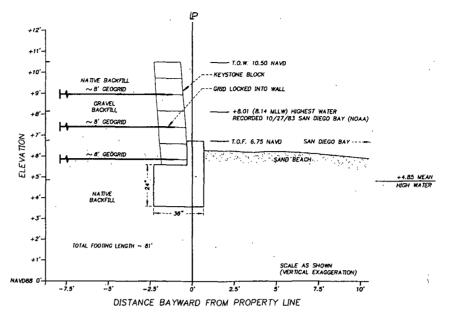
SKETCH BY C. SEFKOW 6-04-08



ATTACHMENT 2







AS BUILT

PROFILE BASED UPON ALGERT 10/5/06 SURVEY AND SITE MEASUREMENTS

3/26/07 6/23/08 8/12/08

REVETMENT CONSTRUCTION 01 FIRST STREET, CORONADO

3/04/07 S1 2 sens

REVETMENT

GENERAL NOTES

- The "Owner" shall be the owner of the residence; the "Engineer" shall be GeoSoils Inc; and the "Contractor" shall be independent entity retained by the Owner to perform the work described herein. The Engineer has been retained by Owner and is not affiliated with the Contractor.
- 2. Unless otherwise directed by the Owner, the Contractor shall secure, at his expense, all permits, licenses, and consents necessary for the performance of the work described herein. The Owner remains responsible to assure that all necessary permits are obtained.
- 3. The Contractor shall verify all site conditions, locations and elevations partor to commencing work. Conditions, locations and elevations shown on the plans shall be considered approximate and shall be verified by the Contractor in the field. Any conflicts or discrepancies shall be brought to the attention of the Engineer and be resolved prior to commencement of the work.
- 4. The Contractor shall coordinate the work of all trades.
- The Contractor shall exercise due care to preserve existing vegetation autside limits of grading. Contractor shall treat all disturbed areas with erosion control measures.
- 6. Contractor to remove and replace all improvements damaged as a result of the work detailed in these plans to a condition equivalent to or better than existing conditions to the satisfaction of the Owner. This includes, but is not necessarily limited to: fences, gates, and roads.
- Contractor shall assume all responsibility for location and avoidance or repair of all underground utilities, including, but not limited to, gae, water, electric, cable TV, telephone, sanitary saver, and storm sever. Contractor shall notify USA Underground-and other appropriate authorities, including public and private utility arms, of construction activities a minimum of two (2) working days prior to commencement of work. Contractor shall verify location and depth of all existing utilities whether shown on the drawings or not. If the contractor fails to adequately protect the utilities, any resulting damage shall be repaired at Contractor's cost.
- 8. All pieces of the removed wall footing shall be disposed of off-site, or placed in an engineer approved location on site.
- 9. Contractor shall assume all responsibility for safety during performance of the work.
- 10. In the event that any unusual conditions not covered by the plans or specifications are encountered during excavation operations, the Engineer shall be immediately contacted for directions. It shall be the Contractors responsibility to immediately notify the Engineer upon discovery of any field conflicts.
- Except as otherwise indicated in this section of the specifications, the Contractor shall comply with the Standard Specifications for Public Works Construction, 1997 Edition, including the 1997 Regional Supplement Amendments and 1997 City of San, Diego Supplement Amendments (SSPWC).
- 12. The Contractor shall provide the Owner and Engineer with the name and telephone number of the responsible person to contact, with regard to this project, 24 hours a day.
- 13. While not anticipated, the Contractor shall provide adequate dust control at all times as required by the City. Any operation that creates excessive dust shall cause immediately until sufficient measures satisfactory to the City have been taken to insure compliance with dust control requirements.
- 14. All work shall be subject to inspection and approval of the Owner and Engineer. All work shall also be subject to inspection by the United States Army Carps of Engineers and the San Diago Unified Port District.
- 15. The Contractor agrees that they shall assume sole and complete responsibility for job site safety conditions during the course of construction of this project, including safety of all persons and property. That this requirement shall apply continuously and not be limited to normal working hours and that the Contractor shall defend, indemnify and hold harriless the Owner and Engineer from any islability read or allegade, in connection with the performance of the work on this project excepting for liability arising from the sole negligence of the Owner or the Engineer.
- 16. The Engineer shall be provided with at least two (2) working days advance notice of construction activities requiring inspection-services at (760) 438-3155 or FAX (760) 931-0915. Before work may begin, reasonable notice of not less than: 72 hours, must be provided to the Army Corps (through Therese O'Rourke, Section Chief, Army Corps of Engineers, Regulatory Division, 760.602.4830) and the Port (through its Supervisor of Inspections, 619.686.6245).
- 17. Contractor shall be responsible for site clean-up to the satisfaction of the Owner.
- 18. Contractor shall comply with the Colifornia Storm Water Best Management Practice Handbook
- 19. The Settlement, Release, and Waiver Agreement, as signed by the San Diego Unified Port District, the Army Corps of Engineers, and the Owner control and supersede over any conflicting terms set forth in the General Notes, Approval Notes, or Specifications contained herein.

APPROVAL NOTES

- All rock placement is subject to observation by the Engineer. Contractor shall notify the Engineer at least two (2) working days before the start of any work. Part & Corps to receive ten (10) days notice.
- Approval of this pion applies only to the excavation and placement of reatural earth materials and filter fabric. This approval does not confeir any rights of entry to either public property or the private property of others. Approval of this pion also does not constitute approval of any other improvements. Any other improvements are subject to review and approval by the responsible authorities and all other required permits shadl be obtained.
- 3. It shall be the responsibility of the Contractor to identify, locate and protect all underground facilities
- The Contractor shall maintain the streets, sidewalks and all other public rights—of—way in a clean, safe and usable condition. All spills of sail, rock or construction debris shall be removed from the publicly owned property during construction and upon completion of the project. All adjacent property, private or public shall be maintained in a clean, safe and usable condition.
- All rock placement shall conform to approved specifications presented hereon. All rock placement work and all imported armor stone shall be observed and approved by the Engineer or licensed Owner representative. Unobserved and unapproved grading work, rock placement, or importation shall be removed and replaced under observation. Port & Corps to receive ten (10) days notice to inspect rock work.

SPECIFICATIONS

SITE WORK

1. WORK INCLUDED

The work covered by this section consists of furnishing all plant, labor, materials, equipment, supplies and incidentals and performing all operations required to install the rock revetment as shown on the drawings.

2. APPLICABLE PUBLICATIONS

The following American Society for Teeting and Materials (ASTM) Specification of the issue listed below, but referred to thereafter by basic designation only, forms a part of this specification to the extent indicated by references thereto.

American Society for Testing and Materials (ASIM) Standards

Specific Gravity and Absorption of

State of California Department of Transportation Standard Specifications (CALTRANS).

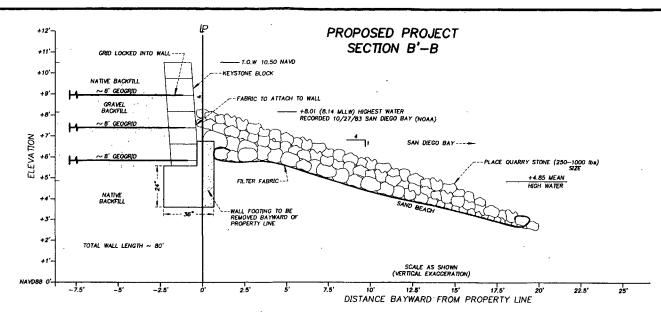
California Bank and Shore Rock Stope Protection Design, CalTrans Study No. F901L03

3. MOBILIZATION AND DEMOBILIZATION

Mobilization shall consist of all work required in preparing the Contractor's plant and equipment for shipment: moving such plant, equipment, supplies and incidentals anto the job site and preparation for construction operations. The Contractor's plant and, equipment proposed for use in the work shall be of sufficient size, capacity and efficiency to meet the job requirements and will be subject to approval by the Owner. Demobilization shall consist of all work required to remove the Contractor's plant, equipment, unused supplies and incidentals from the job site at the completion of the contract work, including cleaning up.

4. MATERIALS

All stone shall be sound, durable, hard, free from laminations or cleavages, and of such character that it will not disintegrate from the action of oir, see water, or the conditions to be met in handling and placing. All stone shall be angular quarried material and stone shall have the greatest dimension not greater than 3 times the least dimension. Quarry operations shall include selective quarrying, screening or grizzlying, handling, and loading to produce rock conforming to graduation requirements. The Contractor will not be granted any extension of time or extra compensation due to any delay caused by sampling or testing of material under the requirements of these specifications.



4.2 Source of Materials

Source of Materials —

Stone materials may be obtained from sources listed in subparagraph "Sources of Stane Materials", under paragraph "QUALITY CONTROL", or from any source proposed by the Contractor and approved by the Engineer in accordance with subparagraph "Moterials", under paragraph "QUALITY CONTROL". The Contractor shall make all arrangements, pay all royalities and secure all permits necessary for furnishing, transporting and placing stone from any source. The Owner remains responsible to assure that all necessary permits are obtained.

4.3 Quality — Sultable tests and service records will be used to determine the acceptability of the stane materials. In the event suitable test reports and a service record, that are satisfactory to the Engineer, are not available, as in the case of newly operated sources, the material shall be subjected to such tests as are necessary to determine its acceptability for use in the work. Tests to which the materials may be subjected include petrographic analysis, specific gravity, obrasion, absorption, wetting and drying, and such other testing as may be considered necessary to demonstrate to the satisfaction of the Engineer that the materials are acceptable for use in the work. All tests will be made by or under the supervision of the Owner and at its expense.

4.4 Stone Classes and Weights -

The minimum, overage and maximum stone weights for each class of stone shall be as listed below. These stone size are determined using the referenced ColTrans design guidelines, specifically equations 1 and 2 on pages 23 and 31. The average weight of the total of the individual pieces of stone for each class shall not be less than the listed average weight.

Stone Type	Minimum	Average	Maximum	Size Range
(Class)	Weight	Weight	Weight	(<u>feet)</u>
	250 lbs	500 lb-	1000 164	15 4. 0

4.5 Stone Density — All stone shall have a density of not less than 159 pounds per cubic foot. Stone average weights shown herein above are based on stone density of 165 pounds per cubic foot. Stone densities greater or lesser than 165 pounds per cubic foot may result in new stone weights as determined by the Engineer. The stone density shall be based on the saturated surface dry specific gravity of the stone determined in accordance with ASTM C13.

4.6 Filter Blanket -

<u>Filter Blanket</u> — Because the proposed revetment is backed by a black wall a rock filter blanket is not necessary. The installation of a 1 foot rock filter blanket as recommended in the typical Part of San Diego Specifications will cause the revetment to be larger than necessary. However if the part requires the filter blanket, the Filter Blanket Material shall consist of crushed quarry material or crushed stane conforming to the gradation shown below. The method used in production of filter blanket material shall be such that the percentage of fractured particles occurring in the finished product shall be as nearly constant and uniform as possible. At least 90% of the material larger than that retained on a 3/8-inch screen shall have at least one fractured face. The maximum percentage abrasion of the filter blanket material shall not exceed 40% when tested in accordance with the provisions in ASTM C535 and C141.

Sieve Size Percent by Weight Passing

100 80-100 30-45 15-25 0-15 3/4 inch 3/8 inch No.4 No.8

- 4.7 Eabric Geotextile filter fabric shall be Mirafi 140N (or equivalent) as approved by the Engineer.
- 5.0 PLACEMENT

5.1 <u>Eabric</u> —
One layer of Geotextile filter fabric shall be placed neat against the the existing block wall and the bottom of all excavations to receive reverment fill. Individual rolls shall be lapped a minimum of 24 inches at the seams and taped prior to filling. The bottom of the filter fabric shall be secured by wrapping into the lower most revertment stone layer as approved by the Engineer in the field. The top of the fabric will be secured to the block wall (ramset).

5.2.1 <u>General</u> —
The final limits of stone, in place, shall be to the lines and grades indicated on the drawings, with reasonable variation. No stone shall be placed or moved after original placement unless a representative of the Engineer is present. The Contractor shall exercise extreme core during placement operations so as to avoid disturbance of "well nested" existing or newly placed stones. Any stone that has rolled off of the revetment outside the design footprint is to be replaced back upon the revetment. The excavator bucket can be used to tamp the stone into place to insure the stone — is well nested.

5.2.2 <u>Method of Placement</u> —
the stones shall be carefully placed and set by placing or relocating with an excavator or similar approved equipment. In general, the longitudinal axis of each outer stone shall be normal to the axis of the grain and shall slope downward toward the toe of the grain.

Strengting Store —
Rejected atone is defined as stone not suitable as to quality or size as specified herein. Any rejected stone will not be pold for and shall be promptly removed from the job site at no expense to the Owner. Any rejected stone placed in the permanent work shall be removed by the Contractor at his expense and such stone shall be replaced with stone as resulted.

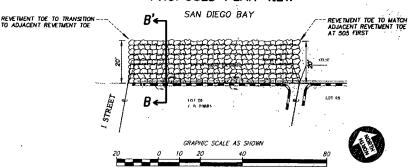
6.0 TRUCK DELIVERY

All stone delivered by truck shall be weighed and the scale tickets certified by authorized weighers provided by the Contractor. All trucks used for delivering stone shall be plainly numbered.

7.0 QUALITY CONTROL

7.1 Sources of Stone Materials —
The Contractor shall designate in writing within 5 days after award of the contract the sources or sources from which he will furnish the stone to be incorporated into the work. Listing of sources in "Sources of Material" shall not constitute representation by the Owner that the source or sources will produce the quantity or sizes required.

PROPOSED PLAN MEW



2 Materials — Material may be obtained from the sources indicated above. If the Contractor proposes to furnish material from sources not listed and test reports or service records covering the materials from such sources that are satisfactory to the Engineer are not available, the material will be tested by the Owner for quality to determine its acceptability for use in the work. When the Contractor desires to use materials from a source not listed, or if the Owner or Engineer elects to retest a source that is listed, suitable samples for quality evaluation shall be taken by the Contractor under the supervision of the Engineer. Samplings shall be delivered by the Contractor to the Engineer. Sampling and shipping of samples shall be a delivered by the Contractor to the Engineer. Sampling and shipping of samples shall be a the Contractor or sources. The right is reserved to reject material produced from localized areas, zones, or strata when such materials are unsuitable for intended use.

7.3 Samples and Testing —
Samples of material from one unlisted source, proposed by the Contractor, will be taken and tested by and at the expense of the Owner if no materials date is available. Samples of materials from additional sources, proposed by the Contractor, will be taken and tested by the Owner and the costs of such testing will be deducted from amounts due or to become due the Contractor. All work required to produce samples or material, representative of the proposed sources, shall be done by and at the expense of the Contractor, and the material, ready for sampling by the Owner, shall be made available at the proposed quarry site, at least 5 days in advance of the time when the placing of stone is expected to begin.

7.4 inspection —
The Contractor shall establish and maintain quality control for all quarrying, loading and placing operations to assure compliance with contract requirements and maintain records of his quality control for all operations, including, but not limited to the following:

Quarrying stone Quality of furnished stone Placement methods Size and weight of stone, in place

he records of such quality control and any corrective action taken to maintain contract compliance will be noted in the Contractor's Quality Control Report. None of the above requirements shall be construed as abrogating the rights of the Owner to inspect the work and to direct changes when required to conform to the drawings and specifications.

STAGING AREA FOR CONSTRUCTION

8.1 Overnight Storage -

<u>uvernight Storage</u> –
No overnight storage of equipment or materials shall occur on public property. During construction stages of the project, the contractor shall not store any construction materials or waste where it will be or could be potentially be subject to wave erasion and dispersion. In addition no machinery shall be placed, stored or otherwise located in the intertials zone at any time, except for the minimum necessary to perform the work. Construction equipment shall not be washed on the beach.

8.2 Access Corridors — Construction access corridors shall be located in a monner that has the least impact on public access to and along the

8.3 Staging Site —
Any staging site not located an owner property will be removed and or restored immediately following completion of the

9.0 CONSTRUCTION RESPONSIBILITY & DEBRIS REMOVAL

No construction materials, debris, or waste shall be placed or stored where it may be subject to:wave erasion or dispersion. There will be no discharge containing pollutants to the Bay, or release of pollutants to the soil or groundwater.

Debris —

Any and all debris resulting from construction activities shall be removed from the beach dallly. No contact ever between bay water and any debris. Removal and disposal of construction debris shall be done in compliance with all applicable regulations of the City of Coronado and the Army Corps of Engineers.

rated beach sand for footing removal shall be redeposited on the beach. No other materials shall be deposited

9.4 <u>Cobbles</u> - Sand from the beach, cobbles and natural shoreline rocks shall not be used for construction material.

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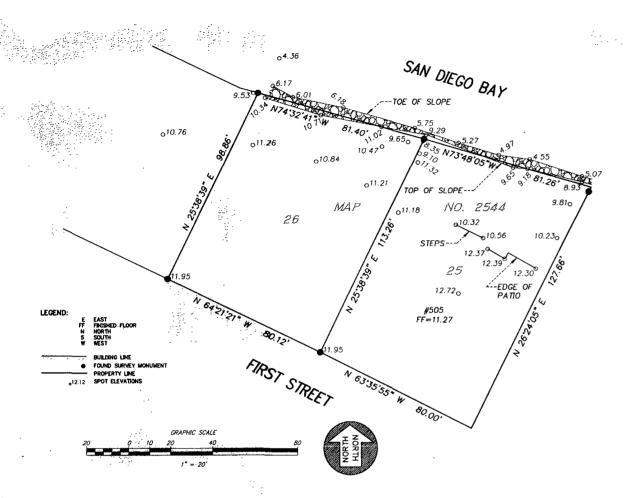
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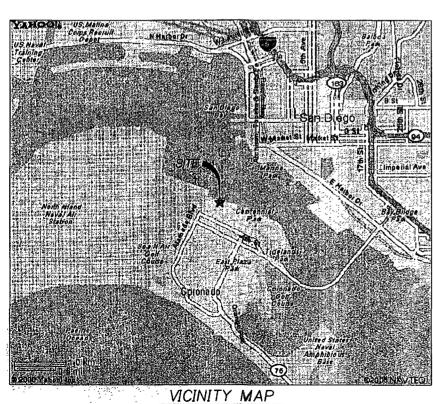
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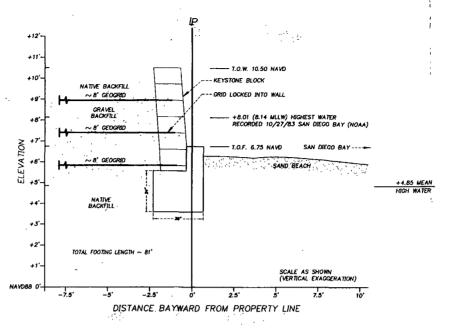
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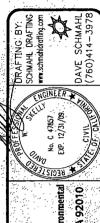




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PROFILE BASED UPON ALGERT 10/5/06 SURVEY AND SITE MEASUREMENTS 3/26/07 6/23/08 8/12/08



Geotechnical - Geologic - Gastal - Environmental

REVETMENT CONSTRUCTION 505 FIRST STREET, CORONADO

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Lote 25 & 26 of Map No. 2

Address:
501 & 505 First Street

Bench Mort:
501FO-30 PER R. of S. 166

SURVEY DATE: FEBRUARY 2, 2006

ALGERT ENGREENING INC.
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REVETMENT

GENERAL NOTES

- The "Owner" shall be the owner of the residence; the "Engineer" shall be GeoSolls Inc; and the "Contractor" shall be independent entity retained by the Owner to perform the work described herein. The Engineer has been retained by to Owner and is not affiliated with the Contractor.
- Unless otherwise directed by the Owner, the Contractor shall secure, at his expense, all permits, licenses, and consents necessary for the performance of the work-described herein. The Owner remains responsible to assure that all necessary permits are obtained.
- The Contractor shall verify all little conditions, locations and elevations prior to commencing work. Conditions, locations and elevations shown on the plans shall be considered approximate and shall be verified by the Contractor in the field. Any conflicts or elevations should be brought to the attention of the Engineer and be resolved prior to commencement of the work.
- The Contractor shall coordinate the work of all trades.
- 5. The Contractor shall exercise due care to preserve existing vegetation outside limits of grading. Contractor shall treat all disturbed areas with erasion control measures.
- Contractor to remove and replace all improvements damaged as a result of the work detailed in these plans to a condition equivalent to or better than existing conditions to the satisfaction of the Owner. This includes, but is not necessarily limited to; fences, gates, and roads.
- Contractor shall assume all responsibility for location and evoidance or repair of all underground utilities, including, but not limited to, gas, water, electric, cable TV, telephone, sanitary sewer, and storm sewer. Contractor shall notify USA Underground and other appropriate authorities, including public and private utility owners, of construction activities a minimum of two (2) working days prior to commendement of work. Contractor shall verify location and depth of all existing utilities whether shawn on the drawings or not. If the contractor falls to adequately protect the utilities, any resulting damage shall be repaired at Contractor's cost.
- 8. All pieces of the removed wall footing shall be disposed of off-site, or placed in an engineer approved location on site.
- 9. Contractor shall assume all responsibility for safety during performance of the work.
- 10. In the event that any unusual conditions not covered by the plans or specifications are encountered during excavation operations, the Engineer shall be immediately contacted, for directions. It shall be the Contractors responsibility to immediately notify the Engineer upon discovery of any field conflicts.
- 11. Except as atherwise indicated in this section of the specifications, the Contractor shall comply with the Standard Specifications for Public Works Construction, 1997 Edition, including the 1997 Regional Supplement Amendments and 1997 City of San Diego Supplement Amendments (SSPWC)
- 12. The Contractor shall provide the Owner and Engineer with the name and telephone number of the responsible person to contact, with regard to this project, 24 hours o day.
- 13. While not anticipated, the Contractor shall provide adequate dust control at all times as required by the City. Any operation that creates excessive dust shall cause immediately until sufficient measures satisfactory to the City have been taken to insure compliance with dust control requirements.
- 14. All work shall be subject to inspection and approval of the Owner and Engineer. All work shall also be subject to inspection by the United States Army Corps of Engineers and the San Diego Unified Port District.
- 15. The Contractor agrees that they shall assume sale and complete responsibility for job site safety conditions during the course of construction of this project, including safety of all persons and property. That this requirement shall apply continuously and not be limited to normal working hours and that the Contractor shall defend, indemnify and hold harmless the Owner and Engineer from any liability, real or alleged, in connection the te performance of the work on this project excepting for liability arising from the sale negligence of the Owner or the Engineer.
- 16. The Engineer shall be provided with at least two (2) working days advance notice of construction activities requiring inspection services at (760) 438-3155 or FAX (760)-931-0915. Before work may begin, reasonable notice of not less than 72 hours, must be provided to the Army Corps (through Therese O'Rourke, Section Chief, Army Corps of Engineers, Regulatory Division, 760.602.4830) and the Port (through its Supervisor of Inspections, 619.686.6245).
- 17. Contractor shall be responsible for site clean-up to the satisfaction of the Owner
- 18. Contractor shall comply with the California Storm Water Best Management Practice Handbook
- 19. The Settlement, Release, and Waiver Agreement, as signed by the San Diego Unified Port District, the Army Corps of Engineers, and the Owner control and supersede over any conflicting terms set forth in the General Notes, Approval Notes, or Specifications contained herein.

APPROVAL NOTES

- All rock placement is subject to observation by the Engineer. Contractor shall notify the Engineer at least two (2) working days before the start of any work. Port & Corps to receive ten (10) days notice.
- Approval of this plan applies only to the excavation and placement of matural earth materials and filter fabric. This approval does not confer any rights of entry to either public property or the private property of others. Approval of this plan also does not constitute approval of any other improvements. Any other improvements are subject to review and approval by the responsible authorities and all other required permits shall be obtained.
- 3. It shall be the responsibility of the Contractor to identify; locate and protect all underground facilities
- 4. The Contractor shall maintain the streets, sidewalks and all other public rights—of—way in a clean, safe and usable condition. All spills of sail, rock or construction debris shall be removed from the publicly owned property during construction and upon completion of the project. All adjacent property, private or public shall be maintained in a clean, safe and usable condition.
- 5. All rock placement shall conform to approved specifications presented hereon. All rock placement work and all imported armor stone shall be observed and approved by the Engineer or illcensed Owner representative. Unobserved and unapproved grading work rock placement, or importation shall be removed and replaced under observation. Port & Corps to receive iten (10) days notice to inspect rack work.

SPECIFICATIONS

SITE WORK

1. WORK INCLUDED

The work covered by this section consists of furnishing all plant, labor, materials, equipment, supplies and incidentals and performing all operations required to install the rock revetment as shown on the drawings.

2. APPLICABLE PUBLICATIONS

The following American Society for Testing and Materials (ASTM) Specification of the issue listed below, but referred to thereafter by basic designation only, forms a port of this specification to the extent indicated by references thereto.

American Society for Testing and Materials (ASTM) Standards

C127-78 Specific Gravity and Absorption of

Coarse Aggregate

State of California Department of Transportation Standard Specifications (CALTRANS).

Californio Bank and Share Rock Slope Protection Design, CalTrans Study No. F90TL03

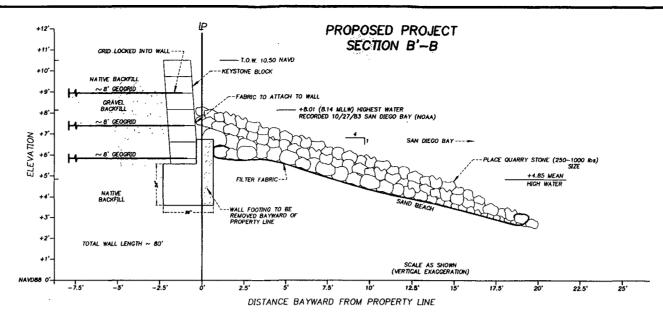
MOBILIZATION: AND DEMOBILIZATION

Mobilization shall consist of all work required in preparing the Contractor's plant and equipment for shipment: moving such plant, equipment, supplies and incidentals onto the job site and preparation for construction operations. The Contractor's plant and equipment proposed from work shall be of sufficient size, capacity and efficiency to meet the job requirements and will be subject to approval by the Owner. Demobilization shall consist of all work required to remove the Contractor's plant, equipment, unused supplies and incidentals from the job site at the completion of the contract work, including cleaning up.

MATERIALS

4.1 Quality of Stone - .

All stone shall be sound, durable, hard, free from laminations or cleavages, and of such character that it will not disintegrate from the action of air, see water, or the conditions to be met in handling and placing. All stone shall have nagular quarried material and stone shall have the greatest dimension not greater than 3 times the least dimension. Out orly operations shall include selective quarrying, screening or gizzlying, handling, and loading to produce rack conforming to gradation requirements. The Contractor will not be granted any extension of time or extra compensation due to any delay caused by sampling or testing of material under the requirements of these specifications.



4.2 Source of Materials — Stone materials may be obtained from sources listed in subparagraph "Sources of Stone Materials", under paragraph "QUALITY CONTROL", or from any source proposed by the Contractor and approved by the Engineer in occordance with subparagraph "Materials", under paragraph "QUALITY CONTROL". The Contractor shall make all arrangements, poy all royalties and secure all permits necessary for furnishing, transporting and placing stone from any source. The Owner remains responsible to assure that all necessary permits are obtained.

4.3 Quality — Sultable tests and service records will be used to determine the acceptability of the stone materials. In the event sultable test reports and a service record, that are satisfactory to the Engineer, are not available, as in the case of newly operated sources, the material shall be subjected to such tests as are necessary to determine its acceptability for use in the work. Tests to which the materials may be "subjected include petrograpic analysis, specific gravity, obrosion, absorption, wetting and drying, and such other testing as may be considered necessary to demonstrate to the satisfaction of the Engineer that the materials are acceptable for use in the work. All tests will be made by or under the supervision of the Owner and at its expense.

4.4 Stone Classes and Weights The minimum, overage and r

The minimum, overage and maximum stone weights for each class of stone shall be as listed below. These stone size are determined using the referenced ColTrans design guidelines, specifically equations 1 and 2 on pages 23 and 31. The average weight of the total of the individual pieces of stone for each class shall not be less than the listed average weight.

Stone Type (Class)	Minimum	Average	Maximum	Size Range
	Weight	Weight	<u>Weight</u>	(fact)
A	250 lbs	500 lbs	1000 lbs	1.5 to 2.1

4.5 Stone Density — All stone shall have a density of not less than 159 pounds per cubic foot. Stone average weights shown herein above are based on stone density of 165 pounds per cubic foot. Stone densities greater or lesser than 165 pounds per cubic foot may result in new stone weights as determined by the Engineer. The stone density shall be based on the saturated surface dry specific gravity of the stone determined in accordance with ASTM C12s.

4.6 Filter Blanket -Because the pro-

Elter Blanket —
Because the proposed revetment is backed by a block wall a rock filter blanket is not necessary. The installation of a 1 foot rock filter blanket as recommended in the typical Port of San Diego Specifications will cause the revetment to be larger than necessary. However if the port requires the filter blanket, the Filter Blanket Material shall consist of crushed quarry material or crushed stone conforming to the gradation shown below. The method used in production of filter blanket material shall be such that the percentage of fractured particles occurring in the finished product shall be as nearly constant and uniform as possible. At least 90% of the material larger than that retained on a 3/8-inch screen shall have at least one fractured face. The maximum percentage abrasion of the filter blanket material shall not exceed 40% when tested in accordance with the provisions in ASTM C535 and C141.

Sieve Size Percent by Weight Possing

4 Inch 3 inch 100 80-100 3 inch 1-1/2 inch 3/4 inch 3/8 inch No.4 No.8 50-65 30-45 15-25

- 4.7 Fabric Geotextile filter fabric shall be Mirafi 140N (or equivalent) as approved by the Engineer.
- 5.0 PLACEMENT

5.1 Eabric One layer of Geotextile filter fabric shall be placed neat against the the existing block wall and the bottom of all excavations to receive revetment fill. Individual rolls shall be lapped a minimum of 24 Inches at the seams and taped prior to filling. The bottom of the filter fabric shall be secured by wrapping into the lower most revetment stone layer as approved by the Engineer in the field. The top of the fabric will be secured to the block wall (ramset).

5.2 Stone

5.2.1 <u>General</u> —

The final limits of stone, in place, shall be to the lines and grades indicated on the drawings, with reasonable variation. No stone shall be placed or moved after original placement unless a representative of the Engineer is present. The Contractor shall exercise extreme care during placement operations so as to avoid disturbance of "well nested" existing or newly placed stones. Any stone that has rolled off of the revetment outside the design footprint is to be replaced back upon the revetment. The excavator bucket can be used to tamp the stone into place to insure the stone — is well nested.

5.2.2 <u>Method of Placement</u> —
the stones shall be carefully placed and set by placing or relocating with an excavator or similar approved equipment. In general, the longitudinal axis of each outer stone shall be normal to the axis of the grain and shall slope downward toward the toe of the grain.

5.2.3 Rejected Stone – Rejected Stone is defined as stone not suitable as to quality or size as specified herein. Any rejected stone will not be paid for and shall be promptly removed from the job site at no expense to the Owner. Any rejected stone placed in the permanent work shall be removed by the Contractor at his expense and such stone shall be replaced with stone as specified.

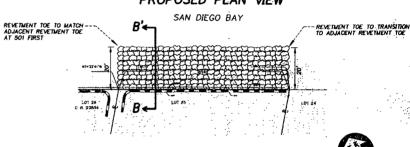
6.0 TRUCK DELIVERY

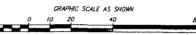
All stone delivered by truck shall be weighed and the scale tickets certified by authorized weighers provided by the Contractor. All trucks used for delivering stone shall be plainly numbered.

7.0 QUALITY CONTROL

7.1 Sources of Stone Materials —
The Contractor shall designate in writing within 5 days after award of the contract the sources or sources from which he will furnish the stone to be incorporated into the work. Listing of sources in "Sources of Material" shall not constitute representation by the Owner that the source or sources will produce the quantity or sizes required:

PROPOSED PLAN VIEW







7.2 <u>Materials</u> —
Material may be obtained from the sources indicated above. If the Contractor proposes to furnish material from sources not listed and test reports or service records covering the materials from such sources, that are satisfactory to the Engineer are not available, the material will be tested by the Owner for quality to determine its acceptability for use in the work. When the Contractor desires to use materials from a source not listed, or if the Owner or Engineer elects to retest a source that is listed, suitable samples for quality evaluation shall be taken by the Contractor under the supervision of the Engineer. Samples shall be delivered by the Contractor to the Engineer. Sampling and shipping of samples shall be at the Contractor's expense. Listing of a source or sources shall not be construct as opproval of all material obtained from that source or sources. The right is reserved to reject material produced from localized areas, zones, or strata when such materials are unsuitable for intended use.

7.3 Samples and Testing —
Samples of material from one unlisted source, proposed by the Contractor, will be taken and tested by and at the expense of the Owner If no materials data is available. Samples of imaterials from additional sources, proposed by the Contractor, will be taken and tested by the Owner and the costs of such testing will be deducted from smounts due or to become due the Contractor. All work required to produce samples or material, prepresentable of the proposed sources, shall be done by and at the expense of the Contractor, and the material, ready for sampling by the Owner, shall be made available at the proposed quarry site, at least 5 days in advance of the time when the placing of stone is expected to begin.

7.4 <u>Inspection</u> — The Contractor shall establish and maintain quality control for all quarrying, loading and placing operations to assure compliance with contract requirements and maintain records of his quality control for all operations, including, but not limited to the following:

Quarrying stone Quality of turnished stone Placement methods Size and weight of stone, in place

The records of such quality control and any corrective action taken to maintain contract compliance will be noted in the Contractor's Quality Control Report. None of the above requirements shall be construed as abrogating the rights of the Owner to inspect the work and to direct changes when required to conform to the drawings and specifications.

8.0 STAGING AREA FOR CONSTRUCTION

No overlight storage of equipment or materials shall occur on public property. During construction stages of the project, the contractor shall not store any construction materials or waste where it will be or could be potentially be subject to wave erosion and dispersion. In addition no machinery shall be placed, stored or otherwise located in the intertical zone at any time, except for the minimum necessary to perform the work. Construction equipment shall not be washed on the beach.

8.2 Access Corridors Construction access corridors shall be located in a manner that has the least impact on public access to and along the Any staging site not located on owner property will be removed and or restored immediately following completion of the

9.0 CONSTRUCTION RESPONSIBILITY & DEBRIS REMOVAL

No construction materials, debris, or waste shall be placed or stored where it may be subject to wave erosion or dispersion. There will be no discharge containing pollutants to the Bay, or release of pollutants to the soil or groundwater.

9.2 Debria — Any and all debris resulting from construction activities shall be removed from the beach dailly. No contact ever between bay water and any debris. Removal and disposal of construction debris shall be done in compliance with all applicable regulations of the City of Coronado and the Army Corps of Engineers. use — excavated beach sand for footing removal shall be redeposited on the beach. No other materials shall be deposited In the sand on the beach.

9.4 <u>Cobbles</u> - Sand from the beach, cobbles and natural shoreline rocks shall not be used for construction material.

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ATTACHMENT 3

ATTACHMENT 3

SOUTHERN CALIFORNIA EELGRASS MITIGATION POLICY

(Adopted July 31, 1991)

Eelgrass (Zostera marina) vegetated areas are recognized as important ecological communities in shallow bays and estuaries because of their multiple biological and physical values. Eelgrass habitat functions as an important structural environment for resident bay and estuarine species, offering both predation refuge and a food source. Eelgrass functions as a nursery area for many commercially and recreational important finfish and shellfish species, including those that are resident within bays and estuaries, as well as oceanic species that enter estuaries to breed or spawn. Eelgrass also provides a unique habitat that supports a high diversity of non-commercially important species whose ecological roles are less well understood.

Eelgrass is a major food source in nearshore marine systems, contributing to the system at multiple trophic levels. Eelgrass provides the greatest amount of primary production of any nearshore marine ecosystem, forming the base of detrital-based food webs and as well as providing a food source for organisms that feed directly on eelgrass leaves, such as migrating waterfowl. Eelgrass is also a source of secondary production, supporting epiphytic plants, animals, and microbial organisms that in turn are grazed upon by other invertebrates, larval and juvenile fish, and birds.

In addition to habitat and resource attributes, eelgrass serves beneficial physical roles in bays and estuaries. Eelgrass beds dampen wave and current action, trap suspended particulates, and reduce erosion by stabilizing the sediment. They also improve water clarity, cycle nutrients, and generate oxygen during daylight hours.

In order to standardize and maintain a consistent policy regarding mitigating adverse impacts to eelgrass resources, the following policy has been developed by the Federal and State resource agencies (National Marine Fisheries Service, U.S. Fish and Wildlife Service, and the California Department of Fish and Game). While the intent of this Policy is to provide a basis for consistent recommendations for projects that may impact existing eelgrass resources, there may be circumstances (e.g., climatic events) where flexibility in the application of this Policy is warranted. As a consequence, deviations from the stated Policy may be allowed on a case-by-case basis. This policy should be cited as the Southern California Eelgrass Mitigation Policy (revision 11).

For clarity, the following definitions apply. "Project" refers to work performed on-site to accomplish the applicant's purpose. "Mitigation" refers to work performed to compensate for any adverse impacts caused by the "project". "Resource agencies" refers to National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), and the California Department of Fish and Game (CDFG).

1. **Mitigation Need.** Eelgrass transplants shall be considered only after the normal provisions and policies regarding avoidance and minimization, as addressed in the Section 404 Mitigation Memorandum of Agreement between the Corps of Engineers and Environmental Protection Agency, have been pursued to the fullest extent possible prior to the development of any mitigation program. Mitigation will be required for the loss of

existing vegetated areas, loss of potential eelgrass habitat, and/or degradation of existing/potential eelgrass habitat. Mitigation for boat docks and/or related work is addressed in section 2.

- 2. **Boat Docks and Related Structures**. Boat docks, ramps, gangways and similar structures should avoid eelgrass vegetated or potential eelgrass vegetated areas to the maximum extent feasible. If avoidance of eelgrass or potential eelgrass areas is infeasible, impacts should be minimized by utilizing, to the maximum extent feasible, construction materials that allow for greater light penetration (e.g., grating, translucent panels, etc.). For projects where the impact cannot be determined until after project completion (i.e., vessel shading, vessel traffic) a determination regarding the amount of mitigation shall be made based upon two annual monitoring surveys conducted during the time period of August to October which document the changes in the bed (areal extent and density) in the vicinity of the footprint of the boat dock, moored vessel(s), and/or related structures. Any impacts determined by these monitoring surveys shall be mitigated per sections 3-12 of this policy. Projects subject to this section must include a statement from the applicant indicating their understanding of the potential mitigation obligation which may follow the initial two-year monitoring.
- 3. **Mitigation Map.** The project applicant shall map thoroughly the area, distribution, density and relationship to depth contours of any eelgrass beds likely to be impacted by project construction. This includes areas immediately adjacent to the project site which have the potential to be indirectly or inadvertently impacted as well as potential eelgrass habitat areas. Potential habitat is defined as areas where eelgrass would normally be expected to occur but where no vegetation currently exists. Factors to be considered in delineating potential habitat areas include appropriate circulation, light, sediment, slope, salinity, temperature, dissolved oxygen, depth, proximity to eelgrass, history of eelgrass coverage, etc.

Protocol for mapping shall consist of the following format:

1) Bounding Coordinates

Horizontal datum - Universal Transverse Mercator (UTM), NAD 83, Zone 11 is the preferred projection and datum. If another projection or datum is used, the map and spatial data must include metadata that accurately defines the projection and datum.

Vertical datum - Mean Lower Low Water (MLLW), depth in feet.

2) Units

Transects and grids in meters.

Area measurements in square meters/hectares.

3) File format

A spatial data layer compatible with readily available geographic information system software must be sent to NMFS and any other interested resource agency when the area mapped has greater than 10 square meters of

eelgrass. For those areas with less than 10 square meters, a table must be provided giving the bounding x,y coordinates of the eelgrass areas. In addition to a spatial layer or table, a hard-copy map should be included within the survey report. The projection and datum should be clearly defined in the metadata and/or an associated text file.

All mapping efforts must be completed during the active growth phase for the vegetation (typically March through October) and shall be valid for a period of 60 days with the exception of surveys completed in August - October. Surveys completed after unusual climatic events (i.e., high rainfall) may have modified requirements and surveyors should contact NMFS, CDFG, and USFWS to determine if any modifications to the standard survey procedures will be required. A survey completed in August - October shall be valid until the resumption of active growth (i.e., in most instances, March 1). After project construction, a post-project survey shall be completed within 30 days. The actual area of impact shall be determined from this survey.

- 4. Mitigation Site. The location of eelgrass transplant mitigation shall be in areas similar to those where the initial impact occurs. Factors such as, distance from project, depth, sediment type, distance from ocean connection, water quality, and currents are among those that should be considered in evaluating potential sites.
- 5. **Mitigation Size.** In the case of transplant mitigation activities that occur concurrent to the project that results in damage to the existing eelgrass resource, a ratio of 1.2 to 1 shall apply. That is, for each square meter adversely impacted, 1.2 square meters of new suitable habitat, vegetated with eelgrass, must be created. The rationale for this ratio is based on, 1) the time (i.e., generally three years) necessary for a mitigation site to reach full fishery utilization and 2) the need to offset any productivity losses during this recovery period within five years. An exception to the 1.2 to 1 requirement shall be allowed when the impact is temporary and the total area of impact is less than 100 square meters. Mitigation on a one-for-one basis shall be acceptable for projects that meet these requirements (see section 11 for projects impacting less than 10 square meters).

Transplant mitigation completed three years in advance of the impact (i.e., mitigation banks) will not incur the additional 20 percent requirement and, therefore, can be constructed on a one-for-one basis. However, all other annual monitoring requirements (see sections 8-9) remain the same irrespective of when the transplant is completed.

Project applicants should consider increasing the size of the required mitigation area by 20-30 percent to provide greater assurance that the success criteria, as specified in Section 10, will be met. In addition, alternative contingent mitigation must be specified, and included in any required permits, to address situation where performance standards (see section 10) are not likely to be met.

For potential eelgrass habitat, a ratio of 1 to 1 of equivalent habitat shall be created.

Degradation of existing eelgrass vegetated habitat that results in a reduction of density greater than 25 percent shall be mitigated on a one-for-one basis. For example, a 25

percent reduction in density of a 100 square meter (100 turions/meter) eelgrass bed to 75 turions/meter would require the establishment of 25 square meters of new eelgrass with a density at or greater than the pre-impact density. All other provisions of the Policy would apply.

6. **Mitigation Technique.** Techniques for the construction and planting of the eelgrass mitigation site shall be consistent with the best available technology at the time of the project. Donor material shall be taken from the area of direct impact whenever possible, but also should include a minimum of two additional distinct sites to better ensure genetic diversity of the donor plants. No more than 10 percent of an existing bed shall be harvested for transplanting purposes. Plants harvested shall be taken in a manner to thin an existing bed without leaving any noticeable bare areas. Written permission to harvest donor plants must be obtained from the California Department of Fish and Game.

Plantings should consist of bare-root bundles consisting of 8-12 individual turions. Specific spacing of transplant units shall be at the discretion of the project applicant. However, it is understood that whatever techniques are employed, they must comply with the stated requirements and criteria.

- 7. **Mitigation Timing.** For off-site mitigation, transplanting should be started prior to or concurrent with the initiation of in-water construction resulting in the impact to the eelgrass bed. Any off-site mitigation project which fails to initiate transplanting work within 135 days following the initiation of the in-water construction resulting in impact to the eelgrass bed will be subject to additional mitigation requirements as specified in section 8. For on-site mitigation, transplanting should be postponed when construction work is likely to impact the mitigation. However, transplanting of on-site mitigation should be started no later than 135 days after initiation of in-water construction activities. A construction schedule which includes specific starting and ending dates for all work including mitigation activities shall be provided to the resource agencies for approval at least 30 days prior to initiating in-water construction.
- 8. **Mitigation Delay.** If, according to the construction schedule or because of any delays, mitigation cannot be started within 135 days of initiating in-water construction, the eelgrass replacement mitigation obligation shall increase at a rate of seven percent for each month of delay. This increase is necessary to ensure that all productivity losses incurred during this period are sufficiently offset within five years.
- 9. **Mitigation Monitoring.** Monitoring the success of eelgrass mitigation shall be required for a period of five years for most projects. Monitoring activities shall determine the area of eelgrass and density of plants at the transplant site and shall be conducted at initial planting, 6, 12, 24, 36, 48, and 60 months after completion of the transplant. All monitoring work must be conducted during the active vegetative growth period and shall avoid the winter months of November through February. Sufficient flexibility in the scheduling of the 6 month surveys shall be allowed in order to ensure the work is completed during this active growth period. Additional monitoring beyond the 60 month period may be required in those instances where stability of the proposed transplant site is questionable or where other factors may influence the long-term success of transplant.

The monitoring of an adjacent or other acceptable control area (subject to the approval of the resource agencies) to account for any natural changes or fluctuations in bed width or density must be included as an element of the overall program.

A monitoring schedule that indicates when each of the required monitoring events will be completed shall be provided to the resource agencies prior to or concurrent with the initiation of the mitigation (see attached monitoring and compliance summary form).

Monitoring reports shall be provided to the resource agencies within 30 days after the completion of each required monitoring period and shall include the summary sheet included at the end of this policy.

10. Mitigation Success. Criteria for determination of transplant success shall be based upon a comparison of vegetation coverage (area) and density (turions per square meter) between the adjusted project impact area (i.e., original impact area multiplied by 1.2) and mitigation site(s). Extent of vegetated cover is defined as that area where eelgrass is present and where gaps in coverage are less than one meter between individual turion clusters. Density of shoots is defined by the number of turions per area present in representative samples within the original impact area, control or transplant bed. Specific criteria are as follows:

a. the mitigation site shall achieve a minimum of 70 percent area of eelgrass and 30 percent density as compared to the adjusted project impact area after the first year.

b. the mitigation site shall achieve a minimum of 85 percent area of eelgrass and 70 percent density as compared to the adjusted project impact area after the second year.

c. the mitigation site shall achieve a sustained 100 percent area of eelgrass bed and at least 85 percent density as compared to the adjusted project impact area for the third, fourth and fifth years.

Should the required eelgrass transplant fail to meet any of the established criteria, then a Supplementary Transplant Area (STA) shall be constructed, if necessary, and planted. The size of this STA shall be determined by the following formula:

$$STA = MTA \times (|A_t + D_t| - |A_c + D_c|)$$

MTA = mitigation transplant area.

 A_t = transplant deficiency or excess in area of coverage criterion (%).

 D_t = transplant deficiency in density criterion (%).

 A_c = natural decline in area of control (%).

 D_c = natural decline in density of control (%).

The STA formula shall be applied to actions that result in the degradation of habitat (i.e., either loss of areal extent or reduction in density).

Five conditions apply:

- 1) For years 2-5, an excess of only up to 30% in area of coverage over the stated criterion with a density of at least 60% as compared to the project area may be used to offset any deficiencies in the density criterion.
- 2) Only excesses in area criterion equal to or less than the deficiencies in density shall be entered into the STA formula.
- 3) Densities which exceed any of the stated criteria shall not be used to offset any deficiencies in area of coverage.
- 4) Any required STA must be initiated within 120 days following the monitoring event that identifies a deficiency in meeting the success criteria. Any delays beyond 120 days in the implementation of the STA shall be subject to the penalties as described in Section 8.
- 5) Annual monitoring will be required of the STA for five years following the implementation and all performance standards apply to the STA.
- 11. **Mitigation Bank.** Any mitigation transplant success that, after five years, exceeds the mitigation requirements, as defined in section 10, may be considered as credit in a "mitigation bank". Establishment of any "mitigation bank" and use of any credits accrued from such a bank must be with the approval of the resource agencies and be consistent with the provisions stated in this policy. Monitoring of any approved mitigation bank shall be conducted on an annual basis until all credits are exhausted.

12. Exclusions.

- 1) Placement of a single pipeline, cable, or other similar utility line across an existing eelgrass bed with an impact corridor of no more than 1 meter wide may be excluded from the provisions of this policy with concurrence of the resource agencies. After project construction, a post-project survey shall be completed within 30 days and the results shall be sent to the resource agencies. The actual area of impact shall be determined from this survey. An additional survey shall be completed after 12 months to insure that the project or impacts attributable to the project have not exceeded the allowed 1 meter corridor width. Should the post-project or 12 month survey demonstrate a loss of eelgrass greater than the 1 meter wide corridor, then mitigation pursuant to sections 1-11 of this policy shall be required.
- 2) Projects impacting less than 10 square meters. For these projects, an exemption may be requested by a project applicant from the mitigation requirements as stated in this policy, provided suitable out-of-kind mitigation is proposed. A case-by-case evaluation and determination regarding the applicability of the requested exemption shall be made by the resource agencies.

(last revised 08/30/05)

Southern California Eelgrass Mitigation Policy Monitoring and Compliance Reporting Summary

TERMIT DATA.			•
Permit (Type, Number)	Issuance Date	Expiration Date	Agency Contact
ACOE:			

reinite (Type, Maniper)	133uance Date	Expiration Date:	Agency Contact
ACOE:			
CDP:			
Other:			

EELGRASS IMPACT AND MITIGATION REQUIREMENTS SUMMARY:

Permitted Eelgrass Impact Estimate	(m²)	
Actual Eelgrass Impact,	(m²)	(post-const. survey date)
Eelgrass Mitigation Requirement	(m²)	(mitigation plan ref.)
Impact Site Location		(location)
Impact Site Center Coordinates		(define projection and datum)
Mitigation Site Location		(location)
Mitigation Site Center Coordinates		(define projection and datum)

PERMITTEE CONTACT INFORMATION:

TERMITTEE CONTACT IN ORMAT	
Project Name	(same as permit ref.)
Permittee Information	(permittee name)
	(mailing address)
	(city, state, zip)
	(permittee contact)
	(phone, fax., e-mail)
Mitigation Consultant	(consultant contact)
	(phone, fax., e-mail)

PROJECT ACTIVITY DATA:

Activity	Start Date	End Date	Reference Info.
Eelgrass Impact			
Installation of Eelgrass Mitigation			
Initiation of Mitigation Monitoring			

MITIGATION STATUS DATA:

Mitigation Milestone	Survey	Survey Date	Area (m²)	Density (turions/m²)	Reference Info.
Requirement					
0-month		,			
6-month					
12-month					
24-month					
36-month					
48-month					
60-month					

FINAL ASSESSMENT:	
Was mitigation met?	
Were mitigation and monitoring performed timely?	
Was delay penalty required or were supplemental mitigation programs necessary?	

Attachment 3 Amended CAO No. R9-2006-0101

Enclosure No. 3 Clean version of CAO No. R9-2006-0101 as amended

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN DIEGO REGION

CLEANUP AND ABATEMENT ORDER NO. R9-2006-0101 AS AMENDED BY ADDENDUM NOS. 1 AND 2

FOR

BILL & HEIDI DICKERSON AND PERRY & PAPENHAUSEN, INC. (AKA PERRY & PAPENHAUSEN CONSTRUCTION)

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

- 1. On August 23, 2006, the Regional Board Executive Officer issued Cleanup and Abatement Order (CAO) No. R9-2006-0101 to Bill and Heidi Dickerson, and Perry and Papenhausen Construction (hereafter Dischargers) for unauthorized discharge of fill to the San Diego Bay.
- 2. On October 13, 2006, the Regional Board Executive Officer issued Addendum No. 1 to CAO R9-2006-0101.
- 3. This second addendum to CAO No. R9-2006-0101 (hereafter Order) has been prepared to address the continued discharge of unauthorized fill into the San Diego Bay that has resulted from violations of the Regional Board's Clean Water Act Section 401 Water Quality Certification (File No. 05C-041) for the removal and replacement of riprap at 501 First Street in the City of Coronado, and the construction of an unauthorized seawall at the same address. This Order supersedes and amends all previously issued versions of CAO No. R9-2006-0101.
- 4. This Cleanup and Abatement Order is based on: (1) Chapter 5, Enforcement and Implementation commencing with Section 13300, of the Porter-Cologne Water Quality Control Act (Water Code) (Division 7 of the Water Code, commencing with Section 13000); (2) Water Code Section 13267, Investigations and Inspections, Chapter 4, Regional Water Quality Control; (3) all applicable provisions of the Water Quality Control Plan for the San Diego Basin (Basin Plan) adopted by the Regional Board including beneficial uses, water quality objectives, and implementation plans; (4) State Water Board Resolution No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California); (5) State Water Board Resolution No. 92-49 (Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304); and all other applicable legal authority.

CAO R9-2006-0101 2 AS AMENDED BY ADDENDUM NOS. 1 AND 2

- 5. Bill and Heidi Dickerson are the owners of the property at 501 First Street, Coronado, San Diego County (Assessors Parcel Number 536-030-0100).
- 6. Perry & Papenhausen Construction, Contractor License No. 830775, is the construction firm hired by the Bill and Heidi Dickerson to construct a residence and perform riprap replacement at the shore side of the property at 501 First Street, in the City of Coronado, San Diego County.
- 7. On July 28, 2005, the Regional Board issued Section 401 Water Quality Certification (File No. 05C-041) and a Waiver of Waste Discharge Requirements (WDR) for Discharge of Dredged and/or Fill Materials to the *Dischargers* for proposed discharges of fill associated with the riprap removal and replacement at their residence located at 501 First Street, in the City of Coronado. The project, as certified by the Regional Board, was to replace approximately 450 cubic yards of existing riprap with approximately 404 cubic yards of engineered riprap within the existing riprap footprint. The new riprap was to be placed between +1 ft. and +4 ft. Mean Lower Low Water (MLLW) over approximately 80 linear feet of shoreline. A filter fabric liner was to be installed beneath the riprap.
- 8. The San Diego Unified Port District (The Port) has jurisdiction over tidelands below the Mean High Tide Line (MHTL) in San Diego Bay, including those directly adjacent to the property at 501 First Street. The State Legislature has conveyed to the Port the authority to act as trustee for the administration and protection of these tidelands in San Diego Bay.
- 9. The 401 certification issued for the proposed project authorized permanent impacts to waters of the U.S., limited to 0.01 acre of previously impacted bay waters and 80 linear feet of previously impacted shoreline.
- 10. Designated existing beneficial uses of coastal waters for San Diego Bay in the Water Quality Control Plan for the San Diego Basin (Basin Plan) include, Industrial Service Supply (IND), Navigation (NAV), Contact Water Recreation (REC 1), Non-contact Water Recreation (REC 2), Commercial and Sport Fishing (COMM), Preservation of Biological Habitats of Special Significance (BIOL), Estuarine Habitat (EST), Wildlife Habitat (WILD), Rare, Threatened or Endangered Species (RARE), Marine Habitat (MAR), Migration of Aquatic Organisms (MIGR) and Shellfish Harvesting (SHELL).
- 11. On or about May 1, 2006, Dischargers began removal of the existing riprap on the shoreline fronting 501 First Street using an excavator.
- 12. On or about May 8, 2006, Dischargers excavated soils, natural sand and debris about 48 inches wide and along the entire length of the northern property line for 501 First Street to accommodate the forms for the footing associated with the construction of an unauthorized seawall.

- 13. On or about May 15, 2006, the *Dischargers* initiated construction of a 4 5 ft. high stacked, mortarless, concrete block wall (seawall), and a poured concrete footing directly adjacent to the seawall within waters of the U.S./State.
- 14. On May 22, 2006, a Port of San Diego survey crew determined that the 162 foot seawall's north edge roughly follows the Mean High Tide Line (MHTL) for its entire length. The Port survey also found that the poured concrete footing encroaches onto Port of San Diego property by approximately 1 foot for the entire length of the footing. Attachment No. 1, is a diagram depicting the results of the Port of San Diego survey of the site.
- 15. On June 12, 2006, a compliance inspection was conducted by Regional Board Staff. The inspection found that Dischargers had not replaced riprap in accordance with Condition A.1 of the 401 Certification issued by the Regional Board, that riprap removal had also been conducted on the bayside of 505 First Street and that an unauthorized seawall had been constructed along the property line of 501 and 505 First Street. The construction of the seawall and concrete footing and failure to replace riprap created an area of unstabilized sandy beach in San Diego Bay between approximately +2.0 ft. and +7.0 ft. MLLW.
- 16. On September 27, 2006, the San Diego Unified Port District (Port District) revoked the California Environmental Quality Act (CEQA) categorical exemption for the project, finding that, as constructed, the project differed substantially from the project as originally described. The original project as proposed in the 401 Certification application and the Environmental Assessment prepared for the project was to replace approximately 450 cubic yards or existing riprap with 404 cubic yards of engineered riprap within the existing riprap footprint on the shoreline of San Diego Bay. Instead, the Dischargers removed the existing riprap that was protecting the shoreline from erosion and initiated construction of a four to five foot high stacked, mortarless, concrete seawall and a poured concrete footing with waters of the U.S./State. The Port District determined that the project as completed does not meet the requirements for a Categorical Exemption to CEQA as replacement or reconstruction.
- 17. On September 23, 2006, the Regional Board withdrew the 401 Certification (File No. 05C-041) issued for the project. The Regional Board withdrew the 401 Certification due to the fact that there was no longer a valid CEQA Document to rely upon, because of the unauthorized deviation from the original project description.
- 18. Section 13304(a) of the California Water Code provides that:

Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement

or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary efforts. A cleanup and abatement order issued by the state board or a regional board may require the provision of, or payment for. uninterrupted replacement water service, which may include wellhead treatment, to each affected public water supplier or private well owner. Upon failure of any person to comply with the cleanup or abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.

- 19. Clean Water Act (CWA) section 404 requires any person proposing to discharge dredge or fill material into navigable waters of the United States to obtain a Section 404 permit prior to such discharge. Section 401 of the CWA requires that any person obtaining a section 404 permit, obtain water quality certification from the State in which the discharge occurs. Section 13376 of the CWC requires that any person who is proposing to discharge pollutants or dredged or fill material into water of the state to submit a report of waste discharge pursuant to CWC section 13260 prior to such discharge. The Dischargers failed to obtain a section 404 permit and section 401 certification, and failed to file a Report of Waste Discharge for the dredge and fill activities associated with the construction of the seawall. Furthermore, Dischargers unauthorized activities are in violation of Basin Plan Prohibitions.
- 20. Condition A.1. of the 401 Certification issued for the riprap replacement project required the Dischargers to:
 - "...at all times, fully comply with the engineering plans, specifications and technical reports submitted with this application for 401 Water Quality Certification and all subsequent submittals required as part of this certification."

The plans and specifications submitted with the application for 401 Certification called for riprap replacement "in conformance with Port of San Diego design criteria" and did not include the construction of a seawall or concrete footing. Dischargers' failure to replace riprap and the construction of a seawall and

footing are in violation of Condition A.1. of the 401 Certification issued by the Regional Board.

- Eelgrass (Zostera Marina) beds occur in shallow water directly adjacent to the 21. sandy beach created by the project. Eelgrass vegetated areas are recognized as important ecological communities in shallow bays and estuaries because of their multiple biological and physical values. Eelgrass habitat functions as an important structural environment for resident bay and estuarine species, offering both predation refuge and a food source. Eelgrass functions as a nursery area for many commercially and recreational important finfish and shellfish species that are resident within bays and estuaries, as well as oceanic species that enter estuaries to breed or spawn. Eelgrass is a major food source in near shore marine systems, contributing to the system at multiple trophic levels. In addition to the habitat and resource value of Eelgrass, it serves beneficial physical roles in bays and estuaries. Eelgrass beds dampen wave and current action, trap suspended particulates, and reduce erosion by stabilizing the sediment. Eelgrass beds also improve water clarity, cycle nutrients, and generate oxygen during daylight hours.
- 22. The unauthorized discharge of fill and exposure of a sandy beach causes and threatens to cause a condition of pollution by directly affecting waters used for beneficial uses. Shoreline erosion of the newly exposed beach threatens beneficial uses by reducing water clarity necessary for the growth of eelgrass. Additionally, the redistribution of sediment from shoreline erosion threatens to degrade the eelgrass beds by covering and smothering the beds within the shallow waters of San Diego Bay.
- 23. The discharge or deposit of sand, soil and sediment into waters of the state constitute "waste" as defined in CWC section 13304. The Dischargers, through this activity, have discharged waste and created a condition where waste continues to be discharged into waters of the U.S./state where it has caused and/or threatens to cause a condition of pollution or nuisance by increasing levels of sediment, and settleable and suspended material. The discharge of waste to the waters of the state in a manner causing, or threatening to cause a condition of pollution, contamination or nuisance is also a violation of Basin Plan Prohibitions.
- 24. Cleanup and abatement action is necessary to ensure that the unauthorized discharges from the project cease to cause and threaten to cause conditions of pollution. Because cleanup and abatement activity will occur within and adjacent to San Diego Bay, best management measures during remedial action are necessary to prevent further conditions that threaten beneficial uses of San Diego Bay.

- 25. Pursuant to Water Code Section 13304, the Regional Board is entitled to, and may seek reimbursement for, all reasonable costs it actually incurs 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.
- 26. Dischargers have been required by this Order to clean up and abate the impacts of their unauthorized discharges since August 23, 2006. Nevertheless, Dischargers have yet to stabilized the shoreline and prevent further discharge.
- 27. In accordance with Water Code section 13267 (b), these findings provide

 Dischargers with a written explanation with regard to the need for remedial action and reports and identify the evidence that supports the requirement to implement cleanup and abatement activities and submit the reports.
- 28. This enforcement action is being taken for the protection of the environment and, as such, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 2100 Et seq.) in accordance with Section 15321 (Enforcement Actions by Regulatory Agencies), Chapter 3, Title 14 of the California Code of Regulations.

IT IS HEREBY ORDERED that, pursuant to Section 13304 and Section 13267 of Division 7 of the California Water Code, the *Dischargers* shall:

- 1. Cease the discharge of sand, soil and sediment to waters of the state and clean up and abate the condition of the unauthorized discharge of fill to San Diego Bay in accordance with the schedule below.
- 2. By May 1, 2008, cleanup and abate existing and threatened pollution associated with the unauthorized discharge of fill to San Diego Bay by restoring and stabilizing the affected area to its pre-project condition or receive written approval from the Regional Board for an alternative Cleanup and Restoration Plan and Schedule.
- 3. By July 2, 2007, stabilize the shoreline by returning the site to conditions similar to those that existed prior to the project by replacing riprap, in accordance with any Port of San Diego specifications and design standards. The Dischargers shall obtain all necessary approvals and permits prior to commencing shore stabilization activities.
- 4. The *Dischargers* shall submit within sixty days of completion of Directive No. 2, a Cleanup and Abatement Progress Report that documents that the required onsite cleanup and abatement actions have been completed and that the stabilization measures have been constructed as authorized. If Directive No. 2 is

not completed by May 1, 2008, then the Dischargers shall submit a report by June 1, 2008, and monthly thereafter until Directive No. 2 is completed.

- 5. By December 22, 2006, the *Dischargers* shall submit an Eelgrass Impact Assessment Report for the area of Bay impacted by the discharge. The report shall thoroughly map the area and distribution of existing eelgrass beds and delineate and quantify any impacts to eelgrass as a result of construction of the project.
- 6. Continue to submit monthly Eelgrass Impact Assessment Reports by the 15th of each month with the first monthly assessment report being due on June 15, 2007, for the area of the Bay impacted by the discharge as determined by the Regional Board. If the Regional Board determines that eelgrass has been negatively impacted by the unauthorized discharge, then Dischargers shall prepare and submit an eelgrass mitigation plan consistent with the Southern California Eelgrass Mitigation Policy (adopted July 31, 1991). This mitigation plan shall be prepared by a qualified Biologist/Environmental Consultant with at least five years of experience in the field of eelgrass mitigation/restoration.
- 7. With each report required by this Order, provide under penalty of perjury under the laws of California a "Certification" statement to the Regional Board.

The "Certification" shall include the following signed statement:

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. Pursuant to California Water Code Section 13350, any person who intentionally or negligently violates a cleanup and abatement order may be liable civilly in an amount which shall not exceed five thousand dollars (\$5,000), but shall not be less than five hundred dollars (\$500), for each day in which the cleanup and abatement order is violated.

NOTIFICATIONS

1. Requirements established pursuant to Water Code Sections 13304 and 13267(b) are enforceable when signed by the Executive Officer of the Regional Board.

CAO R9-2006-0101 8 AS AMENDED BY ADDENDUM NOS. 1 AND 2

- 2. The Regional Board reserves its right to take any enforcement action authorized by law for violations, including but not limited to, violations of the terms and conditions of Section 401 Water Quality Certification No. 05C-041 or this Cleanup and Abatement Order.
- 3. Pursuant to California Water Code section 13350, any person who intentionally or negligently violates a cleanup and abatement order may be liable civilly in an amount which shall not exceed five thousand dollars (\$5,000), but shall not be less than five hundred dollars (\$500), for each day in which the cleanup and abatement order is violated. The Regional Board reserves the right to take any enforcement action authorized by law.
- 4. Pursuant to California Water Code section 13268, any person failing or refusing to furnish technical or monitoring program reports as required by Section 13267, or falsifying any information provided therein, is guilty of a misdemeanor, and may be liable civilly in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.
- 5. The Discharger shall reimburse the State of California for all reasonable costs actually incurred by the Regional 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 Cleanup and Abatement Order, according to billing statements prepared from time to time by the State Water Resources Control Board.
- 6. The Discharger shall properly manage, store, treat, and dispose of contaminated soils and ground water in accordance with applicable federal, state, and local laws and regulations. The storage, handling, treatment, or disposal of soil containing waste constituents and polluted groundwater shall not create conditions of pollution, contamination or nuisance as defined in California Water Code section 13050(m). The Discharger shall, obtain, or apply for coverage under waste discharge requirements or a conditional waiver of waste discharge requirements for any discharge of the waste to (a) land for treatment, storage, or disposal or (b) waters of the state.
- 7. The Discharger(s) shall provide documentation that plans and reports required under this Cleanup and Abatement Order are prepared under the direction of appropriately qualified professionals. 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 registered professionals. The Discharger(s) shall include a statement of qualifications and registration numbers, if applicable, of the responsible lead professionals in all plans and reports required under this Cleanup and Abatement Order. The lead professional shall sign and affix their registration stamp, as applicable, to the report, plan, or document.

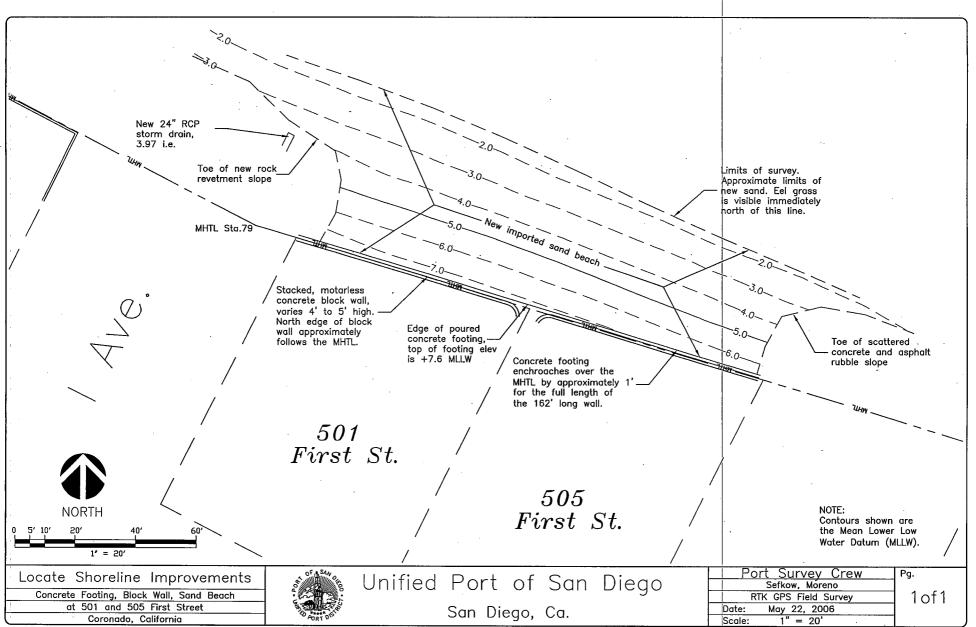
- 8. The Discharger shall submit both electronic and paper copies of all workplans, technical reports, and monitoring reports required under this Cleanup and Abatement Order in accordance with Water Code Section 13196, Electronic Submission of Reports. Electronic submission shall be in PDF format, and include the signed transmittal letter and professional certification.
- 9. All reports required under this Cleanup and Abatement Order shall be signed and certified by the Discharger(s) or by a duly authorized representative of the Discharger(s) and submitted to the Regional Board. A person is a duly authorized representative only if: 1) The authorization is made in writing by the Discharger; and 2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
- 10. All monitoring and technical reports required under this Cleanup and Abatement Order shall be submitted to:

Executive Officer
Attn: Southern Watershed Protection Unit
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

11. FAILURE TO COMPLY WITH THE PROVISIONS OF THIS ORDER MAY SUBJECT YOU TO FURTHER ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO, ASSESSMENT OF CIVIL LIABILITY UNDER SECTIONS 13268 AND 13350 OF THE CALIFORNIA WATER CODE AND REFERRAL TO THE DISTRICT ATTORNEY OR ATTORNEY GENERAL FOR INJUNCTIVE RELIEF AND CIVIL OR CRIMINAL LIABILITY.

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of Cleanup and Abatement Order No. R9-2006-0101 as issued by the Executive Officer and as amended by Addendum Nos. 1 and 2.

JOHNH. ROBERTUS Executive Officer May 10, 2007 Date



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Attachment 4 Amended CAO No. R9-2006-0102

Enclosure No. 3 Clean version of CAO No. R9-2006-0102 as amended

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN DIEGO REGION

CLEANUP AND ABATEMENT ORDER NO. R9-2006-0102 AS AMENDED BY ADDENDUM NOS. 1 AND 2

FOR

LARRY & PENNY GUNNING AND PERRY & PAPENHAUSEN, INC. (AKA PERRY & PAPENHAUSEN CONSTRUCTION)

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

- 1. On August 23, 2006, the Regional Board Executive Officer issued Cleanup and Abatement Order (CAO) No.R9-2006-0102 to Larry and Penny Gunning and Perry and Papenhausen Construction (hereafter *Dischargers*) for unauthorized discharge of fill to San Diego Bay.
- 2. On October 13, 2006, the Regional Board Executive Officer issued Addendum No. 1 to CAO R9-2006-0102.
- 3. This second addendum to CAO No. R9-2006-0102 (Order) has been prepared to address the continued discharge of fill into San Diego Bay that has resulted from the unauthorized removal of riprap at 505 First Street in the City of Coronado and the construction of an unauthorized seawall at the same address. This Order supersedes and amends all previously issued version of CAO No. R9-2006-0102.
- 4. This Cleanup and Abatement Order is based on: (1) Chapter 5, Enforcement and Implementation commencing with Section 13300, of the Porter-Cologne Water Quality Control Act (Water Code) (Division 7 of the Water Code, commencing with Section 13000); (2) Water Code Section 13267, Investigations and Inspections, Chapter 4, Regional Water Quality Control; (3) all applicable provisions of the Water Quality Control Plan for the San Diego Basin (Basin Plan) adopted by the Regional Board including beneficial uses, water quality objectives, and implementation plans; (4) State Water Board Resolution No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California); (5) State Water Board Resolution No. 92-49 (Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304); and all other applicable legal authority.

- 5. Larry and Penny Gunning are the owners of the property located at 505 First Street, Coronado, San Diego County.
- 6. Perry & Papenhausen Construction, Contractor License No. 830775, is the construction firm hired by the Larry and Penny Gunning to remove existing shoreline riprap and construct a seawall and associated concrete footing at the shore side of the property at 505 First Street, in the City of Coronado, San Diego County.
- 7. Designated existing beneficial uses of coastal waters for San Diego Bay in the Water Quality Control Plan for the San Diego Basin (Basin Plan) include, Industrial Service Supply (IND), Navigation (NAV), Contact Water Recreation (REC 1), Non-contact Water Recreation (REC 2), Commercial and Sport Fishing (COMM), Preservation of Biological Habitats of Special Significance (BIOL), Estuarine Habitat (EST), Wildlife Habitat (WILD), Rare, Threatened or Endangered Species (RARE), Marine Habitat (MAR), Migration of Aquatic Organisms (MIGR) and Shellfish Harvesting (SHELL).
- 8. The San Diego Unified Port District (The Port) has jurisdiction over tidelands below the Mean High Tide Line (MHTL) in San Diego Bay, including those directly adjacent to the property at 501 First Street. The State Legislature has conveyed to the Port the authority to act as trustee for the administration and protection of these tidelands in San Diego Bay.
- 9. On or about May 1, 2006, *Dischargers* began removal of the existing riprap on the shoreline fronting 505 First Street using an excavator.
- 10. On or about May 8, 2006, *Dischargers* excavated soils, natural sand and debris about 48 inches wide and along the entire length of the northern property line for 505 First Street to accommodate the forms for the footing associated with the construction of an unauthorized seawall.
- 11. On or about May 15, 2006, the *Dischargers* initiated construction of a 4 5 ft. high stacked, mortarless, concrete block wall (seawall), and a poured concrete footing directly adjacent to the seawall within waters of the U.S./State. Construction of the seawall was initiated in concert with the adjacent property at 501 First Street, in Coronado. The construction of the seawall and concrete footing is a discharge of waste to waters of the U.S./State in violation CWC Section 13260¹.

¹ Pursuant to CWC section 13260, "any person discharging waste or proposing to discharge waste, within any region that could affect the quality of the waters of the state..." shall file a report of waste discharge. The Regional Board has not received a 401application or report of waste discharge for wastes discharged at the site.

- 12. On May 22, 2006, a Port of San Diego survey crew determined that the 162 foot seawall's north edge roughly follows the Mean High Tide Line (MHTL) for its entire length. The Port survey also found that the poured concrete footing encroaches onto Port of San Diego property by approximately 1 foot for the entire length of the footing. Attachment No. 1 is a diagram depicting the results of the Port of San Diego survey of the site.
- 13. On June 12, 2006, a compliance inspection was conducted by Regional Board Staff. The inspection found that *Dischargers* had removed riprap from the shoreline on the bayside of 505 First Street and that an unauthorized seawall had been constructed along the property line of 501 and 505 First Street. The construction of the seawall and concrete footing and removal of riprap created an area of unstabilized sandy beach in San Diego Bay between approximately +2.0 ft. and +7.0 ft. MLLW.
- 14. Section 13304 (a) of the California Water Code provides that:

Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. A cleanup and abatement order issued by the state board or a regional board may require the provision of, or payment for, uninterrupted replacement water service, which may include wellhead treatment, to each affected public water supplier or private well owner. Upon failure of any person to comply with the cleanup or abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.

15. Clean Water Act (CWA) section 404 requires any person proposing to discharge dredge or fill material into navigable water of the United States to obtain a Section 404 permit prior to such discharge. CWA section 401 requires that any person obtaining a Section 404 permit, obtain water quality certification from the

State in which the discharge occurs. California Water Code section 13376 requires that any person who is proposing to discharge pollutants or dredged or fill material into water of the state to submit a report of waste discharge pursuant to California Water Code section 13260 prior to such discharge. The *Dischargers* failed to obtain a section 404 permit and section 401 Water Quality Certification, and failed to file a Report of Waste Discharge for the removal of riprap and dredge and fill activities associated with the construction of the sea wall. Furthermore, *Dischargers* unauthorized activities are in violation of Basin Plan prohibitions.

- 16. Eelgrass (Zostera Marina) beds occur in shallow water directly adjacent to the sandy beach created by the project. Eelgrass vegetated areas are recognized as important ecological communities in shallow bays and estuaries because of their multiple biological and physical values. Eelgrass habitat functions as an important structural environment for resident bay and estuarine species, offering both predation refuge and a food source. Eelgrass functions as a nursery area for many commercially and recreational important finfish and shellfish species that are resident within bays and estuaries, as well as oceanic species that enter estuaries to breed or spawn. Eelgrass is a major food source in near shore marine systems, contributing to the system at multiple trophic levels. In addition to the habitat and resource value of Eelgrass, it serves beneficial physical roles in bays and estuaries. Eelgrass beds dampen wave and current action, trap suspended particulates, and reduce erosion by stabilizing the sediment. Eelgrass beds also improve water clarity, cycle nutrients, and generate oxygen during daylight hours.
- 17. The unauthorized discharge of fill and exposure of a sandy beach causes and threatens to cause a condition of pollution by directly affecting waters used for beneficial uses. Shoreline erosion of the newly exposed beach threatens beneficial uses by reducing water clarity necessary for the growth of eelgrass. Additionally, the redistribution of sediment from shoreline erosion threatens to degrade the eelgrass beds by covering and smothering the beds within the shallow waters of San Diego Bay.
- 18. The discharge or deposit of sand, soil and sediment into water of the state constitute "waste" as defined in California Water Code section 13304. The *Dischargers*, through this activity, have discharged waste and created a condition where waste continues to be discharged into waters of the U.S./State where it has caused and/or threatens to cause a condition of pollution or nuisance by increasing levels of sediment, and settleable and suspended material. The discharge of waste to the waters of the State in a manner causing, or threatening to cause a condition of pollution, contamination or nuisance is also a violation of Basin Plan prohibitions.

- 19. Dischargers have been required by this Order to clean up and abate the impacts of their unauthorized discharges since August 23, 2006. Nevertheless, Dischargers have yet to stabilize the shoreline and prevent further discharge.
- 20. Cleanup and abatement action is necessary to ensure that the unauthorized discharges from the project cease to cause and threaten to cause conditions of pollution. Because cleanup and abatement activity will occur within and adjacent to San Diego Bay, best management measures during remedial action are necessary to prevent further conditions that threaten beneficial uses of San Diego Bay.
- 21. Pursuant to Water Code Section 13304, the Regional Board is entitled to, and may seek reimbursement for, all reasonable costs it actually incurs 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.
- 22. In accordance with Water Code section 13267 (b) these findings provide Dischargers with a written explanation with regard to the need for remedial action and reports and identify the evidence that supports the requirement to implement cleanup and abatement activities and submit the reports.
- 23. This enforcement action is being taken for the protection of the environment and, as such, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 2100 Et seq.) in accordance with Section 15321 (Enforcement Actions by Regulatory Agencies), Chapter 3, Title 14 of the California Code of Regulations.

IT IS HEREBY ORDERED that, pursuant to Section 13304 and Section 13267 of Division 7 of the California Water Code, the *Dischargers* shall:

- 1. Cease the discharge of sand, soil and sediment to water of the state and clean up and abate the condition of unauthorized discharge of fill to San Diego Bay in accordance with the schedule below.
- 2. By May 1, 2008, cleanup and abate existing and threatened pollution associated with the unauthorized discharge of fill to San Diego Bay by restoring and stabilizing the affected area to its pre-project condition or receive written approval from the Regional Board for an alternative Cleanup and Restoration Plan and Schedule.
- 3. By July 2, 2007, stabilize the San Diego Bay shoreline by returning it to conditions similar to those that existed prior to the project by replacing riprap, in accordance with any Port of San Diego specifications and design standards. The

Dischargers shall obtain all necessary approvals and permits prior to commencing shore stabilization activities.

- 4. The *Dischargers* shall submit within sixty days of completion of Directive No. 2, a Cleanup and Abatement Progress Report that documents that the required onsite cleanup and abatement actions have been completed and that the stabilization measures have been constructed as authorized. If Directive No. 2 is not completed by May 1, 2008, then the Dischargers shall submit a report by June 1, 2008, and monthly thereafter until Directive No. 2 is completed.
- 5. By December 22, 2006, the *Dischargers* shall submit an Eelgrass Impact Assessment Report for the area of Bay impacted by the discharge. The report shall thoroughly map the area and distribution of existing eelgrass beds and delineate and quantify any impacts to eelgrass as a result of construction of the project.
- 6. Continue to submit monthly Eelgrass Impact Assessment Reports by the 15th of each month with the first monthly assessment report being due on June 15, 2007, for the area of the Bay impacted by the discharge as determined by the Regional Board. If the Regional Board determines that eelgrass has been negatively impacted by the unauthorized discharge, then Dischargers shall prepare and submit an eelgrass mitigation plan consistent with the Southern California Eelgrass Mitigation Policy (adopted July 31, 1991). This mitigation plan shall be prepared by a qualified Biologist/Environmental Consultant with at least five years of experience in the field of eelgrass mitigation/restoration.
- 7. With each report required by this Order, provide under penalty of perjury under the laws of California a "Certification" statement to the Regional Board.

The "Certification" shall include the following signed statement:

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. Pursuant to California Water Code Section 13350, any person who intentionally or negligently violates a cleanup and abatement order may be liable civilly in an amount which shall not exceed five thousand dollars (\$5,000), but shall

not be less than five hundred dollars (\$500), for each day in which the cleanup and abatement order is violated.

NOTIFICATIONS

- 1. Requirements established pursuant to Water Code Sections 13304 and 13267(b) are enforceable when signed by the Executive Officer of the Regional Board.
- 2. The Regional Board reserves its right to take any enforcement action authorized by law for violations, including but not limited to, violations of the terms and conditions of this Cleanup and Abatement Order.
- 3. Pursuant to California Water Code section 13350, any person who intentionally or negligently violates a cleanup and abatement order may be liable civilly in an amount which shall not exceed five thousand dollars (\$5,000), but shall not be less than five hundred dollars (\$500), for each day in which the cleanup and abatement order is violated.
- 4. Pursuant to California Water Code section 13268, any person failing or refusing to furnish technical or monitoring program reports as required by Section 13267, or falsifying any information provided therein, is guilty of a misdemeanor, and may be liable civilly in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.
- 5. The Discharger shall reimburse the State of California for all reasonable costs actually incurred by the Regional 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 Cleanup and Abatement Order, according to billing statements prepared from time to time by the State Water Resources Control Board.
- 6. The Discharger shall properly manage, store, treat, and dispose of contaminated soils and ground water in accordance with applicable federal, state, and local laws and regulations. The storage, handling, treatment, or disposal of soil containing waste constituents and polluted groundwater shall not create conditions of pollution, contamination or nuisance as defined in California Water Code section 13050(m). The Discharger shall, obtain, or apply for coverage under waste discharge requirements or a conditional waiver of waste discharge requirements for any discharge of the waste to (a) land for treatment, storage, or disposal or (b) waters of the state.
- 7. The Discharger(s) shall provide documentation that plans and reports required under this Cleanup and Abatement Order are prepared under the direction of appropriately qualified professionals. 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 registered professionals. The Discharger(s) shall include a statement of qualifications and registration numbers, if applicable, of the responsible lead professionals in all plans and reports required under this Cleanup and Abatement Order. The lead professional shall sign and affix their registration stamp, as applicable, to the report, plan, or document.

- 8. The Discharger shall submit both electronic and paper copies of all workplans, technical reports, and monitoring reports required under this Cleanup and Abatement Order in accordance with Water Code Section 13196, Electronic Submission of Reports. Electronic submission shall be in PDF format, and include the signed transmittal letter and professional certification.
- 9. All reports required under this Cleanup and Abatement Order shall be signed and certified by the Discharger(s) or by a duly authorized representative of the Discharger(s) and submitted to the Regional Board. A person is a duly authorized representative only if: 1) The authorization is made in writing by the Discharger; and 2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.).
- 10. All monitoring and technical reports required under this Cleanup and Abatement Order shall be submitted to:

Executive Officer
Attn: Southern Watershed Protection Unit
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

11. FAILURE TO COMPLY WITH THE PROVISIONS OF THIS ORDER MAY SUBJECT YOU TO FURTHER ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO, ASSESSMENT OF CIVIL LIABILITY UNDER SECTIONS 13268 AND 13350 OF THE CALIFORNIA WATER CODE AND REFERRAL TO THE DISTRICT ATTORNEY OR ATTORNEY GENERAL FOR INJUNCTIVE RELIEF AND CIVIL OR CRIMINAL LIABILITY.

CAO R9-2006-0102 AS AMENDED BY ADDENDUM NOS. 1 AND 2

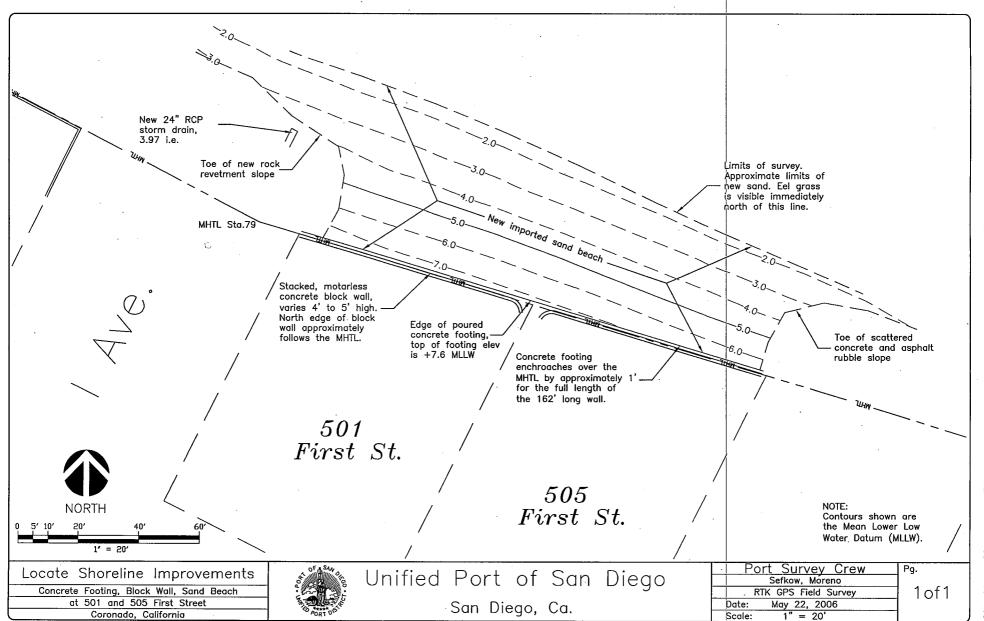
May 10, 2007

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of Cleanup and Abatement Order No. R9-2006-0102 as issued by the Executive Officer as amended by Addendum Nos. 1 and 2.

Executive Officer

May 10, 2007

Date

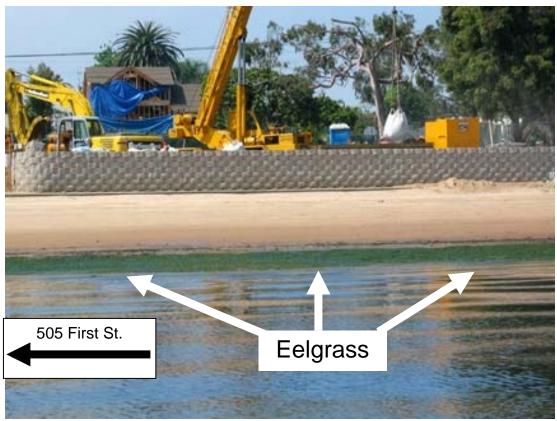


Attachment No. 1 Port Survey

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Attachment 5 Riprap Photographs

Attachment No. 5 Post-Construction Photographs



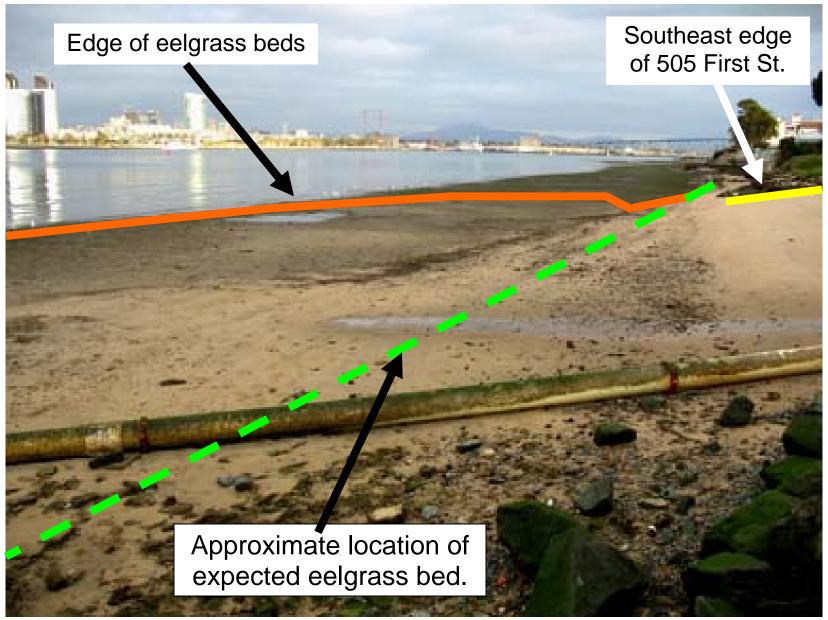
View to the southwest of 501 First St. (May19, 2006)



View to the southwest of 505 First St. (May19, 2006)

Attachment 6 Port Photographs

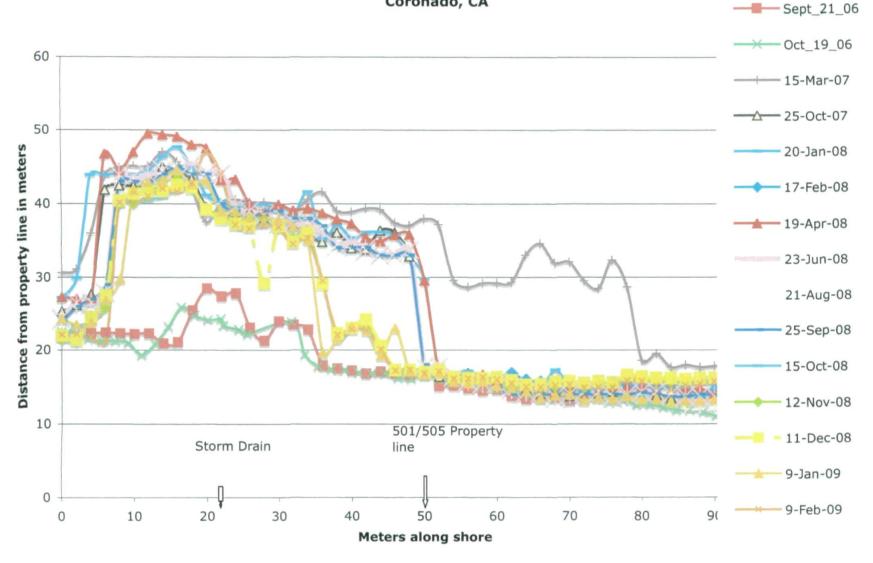
Attachment No. 6 Eelgrass Damage Photograph



View to the southeast of the shoreline along 501 and 505 First St. (Jan. 3, 2007)

Attachment 7 Eelgrass Survey

February 2009 Eelgrass Survey 501/505 First St Coronado, CA



Attachment 8 SDSU Report

An evaluation of damage to eelgrass due to shoreline alteration: 501 and 505 1st street, Coronado, CA

Report prepared by:

Dr. Kevin A. Hovel
Associate Professor of Biology
San Diego State University

May 23, 2008



1. Executive summary

As a marine biologist who has studied seagrass ecosystems for 13 years, I have been asked to render an opinion as to the likelihood that removal of rip-rap and construction of a seawall in front of 501 and 505 1st street, Coronado, CA has resulted in damage to the eelgrass (*Zostera marina*) beds adjacent to these properties. To render my opinion, I (1) reviewed over 1,000 pages of documents and photographs pertaining to the history of shoreline alteration and trends in eelgrass abundance at the site, which included periodic surveys of the eelgrass bed in front of 501 and 505 1st street; (2) made a site visit to the area in question on May 9, 2008 to photograph and sample the eelgrass beds; (3) reviewed literature on the subject of sources of seagrass loss and degradation; and (4) consulted with other experts in seagrass biology regarding sources of eelgrass loss and degradation, in order to evaluate the likelihood that other environmental factors may have contributed to eelgrass loss at the site.

Photographic records and documentation, satellite photographs taken before and after rip-rap removal and seawall construction, and my personal observations of the site all indicate that seagrass was consistently present in the intertidal zone adjacent to 501 and 505 1st street prior to the spring of 2006, when rip-rap removal and seawall construction took place. Beginning the summer and fall of 2006, intertidal eelgrass at the site began to disappear, and as of May 9, 2008, the intertidal area adjacent to 501 1st street remains unvegetated. Approximately 1,003 m² of eelgrass has been lost, primarily in front of 501 1st street. In my opinion, removal of rip-rap and construction of the seawall have been primarily responsible for eelgrass loss, though other potential sources of eelgrass loss in this area, including shading and freshwater discharge, may account for a relatively small fraction of this loss. Documents and photographs clearly show a correspondence between removal of rip-rap and loss of eelgrass. Removal of rip-rap has exposed the underlying sediment, and evidence indicates that this sediment has been transported by waves and currents to the adjacent eelgrass bed, where it has killed the intertidal eelgrass. Reflection of waves off of the vertical seawall at high tides likely has increased the rate of sediment transport to the eelgrass bed. Below, I review the importance of eelgrass habitat and provide the details regarding my findings.

2. Seagrass habitat

Seagrasses are marine flowering plants that live in shallow coastal waters worldwide. Though they live in aquatic environments, seagrass are quite different from algae ("seaweeds"). Unlike most types of algae, seagrasses anchor themselves to soft sediments or to hard substrates using a system of roots and rhizomes. Also unlike algae, but like most terrestrial plants, seagrasses use a system of veins to transport nutrients and dissolved gases throughout the plant. Seagrasses morphologically resemble grasses, but are most closely related to lilies. Seagrasses produce small flowers and reproduce through the production of seeds, though localized spread of seagrass primarily occurs by elongation of underground rhizomes.

Seagrasses provide a variety of services to humans and other organisms. They help prevent shoreline erosion by buffering currents and waves, they stabilize sediments and improve water clarity, they produce oxygen and organic carbon via photosynthesis, and they serve as a habitat to a variety of vertebrate and invertebrate organisms that form part of coastal food webs (Orth and van Montfrans 1982). Seagrasses have been labeled "essential fish habitat" by organizations such as the National Marine Fisheries Service, because juvenile fishes find refuge from predation, as well as sources of food, within the seagrass leaves.

Eelgrass (*Zostera marina*) is one of about 50 seagrass species worldwide. Eelgrass is one of the most common seagrass species in shallow, temperate waters around the world, and comprises nearly all of the seagrass present in San Diego Bay. In San Diego Bay, eelgrass serves as a habitat for recreationally important and commercially important species such as giant kelp fish, sand bass and kelp bass, spiny lobster, and halibut (U.S. Department of the Navy, Southwest Division 1999; Hovel, *personal observation*). Eelgrass in San Diego Bay also is directly consumed by sea turtles and birds, and it indirectly provides nutrients (via decomposition of senescent blades) to aquatic bacteria, plants, and animals.

Like most seagrass species, eelgrass grows in shallow coastal waters, making it particularly susceptible to anthropogenic disturbances. At small scales (i.e. a few square meters or less), eelgrass loss may occur from boat anchors and moorings, vessel groundings, propeller scarring and use of jet skis, shading, and fishing practices (Fonseca et al. 1998). At larger scales (tens of square meters to thousands of square meters), eelgrass loss frequently occurs from sedimentation, shading (e.g. from marinas), and dredging, as well as any changes to the coast that may alter hydrodynamic patterns (i.e., increase wave energy or current speeds in localized areas) (Fonseca et al. 1998). Eelgrass disturbance and loss may occur from natural sources at both scales, which can include current scouring, algal overgrowth, bioturbation (disturbance of the sediment from digging animals), herbivory, disease, and temperature extremes (Townsend and Fonseca 1998). Heavy human colonization of coastal regions has resulted in heavy losses of valuable seagrass habitat worldwide, which has spurned many seagrass conservation efforts and regulations, including the Southern California Eelgrass Mitigation Policy, which requires the replacement of 1.2 m² of eelgrass for every 1 m² that is lost (National Marine Fisheries Service 1991).

3. Eelgrass loss at 501 and 505 1st street, Coronado, CA

A. History and present status.

Eelgrass grows subtidally and intertidally throughout San Diego Bay, including areas along the eastern shoreline of the City of Coronado (Figure 1). Along the shoreline running northwest-to-southeast, north of the Coronado Bay Bridge, there are extensive eelgrass beds that have colonized the shallow mud and sand sediment running parallel to shore. Along much of the shoreline, rip-rap (a combination of large boulders and cement blocks) has been placed to prevent erosion. In the winter and spring of 2006, rip-rap removal took place in front of 501 1st street (owned by Bill and Heidi Dickerson) and in front of the adjacent property to the east, 505 1st street (owned by Larry and Penny Gunning). A seawall (stacked blocks on top of a cement footing) then was constructed along the shoreline in front of both properties in ca. May 2006 (Figure 2). Over approximately the next 6-8 months, monthly surveys conducted by JNE and Associates, Inc. indicate that the shoreward edge of the eelgrass bed adjacent to the two properties and adjacent to the park next to 501 1st street

receded, whereas no such changes to the bed edge were evident in other areas along the shoreline. Monthly surveys of the distance from the seawall to the shoreward edge show that after shoreline alteration, the eelgrass bed edge receded from the shoreline by an average distance of approximately 20 meters. In the spring or summer of 2007, surveys of the bed edge and photographs of the site indicate that eelgrass re-grew in the intertidal zone in front of 505 1st street, but as of May 2008, regrowth has not occurred in front of 501 1st and the adjacent park (Figure 3, Figure 4).

B. Sources of eelgrass loss.

Rip-rap is widely used in Southern California and throughout the world to slow erosion. The energy from waves striking the shoreline is dissipated by the rip-rap, and the complex angular structure of the rip-rap helps prevent wave energy from being propagated in one direction (e.g., up and down the beach). Removal of rip-rap allows this energy to impinge directly upon the exposed sand, where it moves sand up and down the beach. Moreover, replacing rip-rap with a vertical seawall or bulkhead results in a reflection of wave energy down the beach, essentially doubling the amount of energy impinging upon the exposed sand when in contact with water at high tides (Mark Fonseca, National Atmospheric and Oceanic Administration, *personal communication*).

In my opinion, removal of rip-rap and construction of the seawall are the most likely sources of eelgrass loss at 501 and 505 1st street, via the movement of sediment from the beach to the intertidal eelgrass beds. Sedimentation degrades eelgrass in two major ways: (1) by direct burial, in which sediment builds up around shoots; and (2) through reduction in light levels, as sediment suspended in the water column reflects and absorbs light. Both of these processes cause physiological damage to eelgrass and likely have affected eelgrass at this site. Due to the intertidal nature of the site, relatively little sediment would be needed to bury eelgrass to a depth at which plant survival decreases; burial to only 25% of total shoot height results in eelgrass mortality rates of > 50% (Mills and Fonseca 2003). Eelgrass is relatively intolerant to reductions in light levels, such that suspension of sediment in the water may have exacerbated physiological stress due to burial.

Some other potential factors have been cited as the primary source of eelgrass loss, but none of these potential impacts would likely cause the pattern and magnitude of eelgrass loss evident at the site. Dr. Jean Nichols of JNE and Associates, Inc. (the biologist responsible for monthly monitoring eelgrass at the site) has suggested that the loss is due to shading from a tree present in the park next to 501 1st street, in conjunction with storm water discharge from a storm drain adjacent to the tree. Whereas consistent shade from structures such as docks can easily damage eelgrass, the intermittent shade from this tree, present primarily in winter at low sun angles, is not enough to cause the level of eelgrass loss present at the site. Likewise, the occasional freshwater discharge from the storm drain is unlikely to have led to the large amount of eelgrass loss at the site. Eelgrass is tolerant of a wide range of salinities; healthy eelgrass beds can be found near storm drains in San Diego Bay and Mission Bay (Hovel, personal observation), and in other areas of California, eelgrass persists where salinities vary from close to zero to close to full seawater (Dr. Mark Fonseca, National Atmospheric and Oceanic Administration, *personal communication*). Though seagrasses acclimate to conditions found within the body of water in which they grow, and a rapid change in salinity can cause seagrass death (Hemminga and Duarte 2000), freshwater discharged after a storm would be mixed

with San Diego Bay water over a period of minutes to hours, further reducing the likelihood that freshwater discharge from the storm drain has been a source of eelgrass loss.

It is possible that the combination of discharge from the storm drain and shading from the adjacent tree may have led to some eelgrass loss at the site; though each factor alone would not cause widespread eelgrass loss, combined they may have physiologically stressed the plants enough to result in eelgrass loss. However, the area of loss from these sources would be isolated to a small area immediately in front of the park adjacent to 501 1st street. In fact, satellite photos from before and during shoreline alteration (Figure 4) show a consistent area devoid of eelgrass immediately in front of the storm drain and tree. However, I estimate that the area devoid of eelgrass before May 2006 is less than 10% of the area that has been devoid of eelgrass after May 2006. Thus, discharge from the storm drain and shading from the tree cannot account for the magnitude of eelgrass loss at the site.

Severe cold also was cited as a possible reason for eelgrass loss. However, eelgrass is tolerant of cold temperatures, and in fact eelgrass is found only in temperate and polar climates due to an intolerance to warmer water found in tropical climates (Santamaria-Gallegos et al. 2000). No baywide loss of intertidal eelgrass due to severe cold has occurred since shoreline alteration at 501 and 505 1st street; more extensive losses would be expected if cold weather alone were responsible for changes to eelgrass distribution.

Other anthropogenic and naturally occurring sources of eelgrass loss also would not account for the pattern and magnitude of damage. For instance, damage from vessels (anchoring, grounding, propeller scarring and jet skis) would result in discrete gaps in the eelgrass, rather than loss over a wide area, and would be more likely to occur in subtidal portions of the bed.

C. Amount of eelgrass loss and eelgrass health.

To assess how much eelgrass has been lost, as well as the relatively health of the eelgrass remaining at the site, I compared satellite photographs of the shoreline adjacent to 501 and 505 1st street taken before and after rip-rap removal and seawall construction. I also visited the site on May 9, 2008 to conduct surveys and to mark the coordinates of the eelgrass bed edge, which I compared to the satellite photos to assure their accuracy as a tool to measure the area of eelgrass loss.

I calculate that there has been a loss of 1,003 m² of eelgrass since May 2006. The area of loss essentially constitutes a rough rectangle approximately 50 m in length (parallel to shore) and approximately 22 m in width. This newly unvegetated area extends from the property line dividing 501 and 505 1st street to approximately 17 m to the northwest of the 501 1st street property line. In my calculation I included the unvegetated area in front of the park (adjacent to 501 1st street) that is contiguous with the unvegetated area in front of 501 1st street, as sediment movement would not necessarily be isolated to the area bounded by property lines. However, this calculation does not include the area that previously was unvegetated (in the proximity of the tree and storm drain). Also not included in this calculation is a bare area within the eelgrass bed (approximately 80 m²) that lies in front of 505 1st street, as this area appeared to be unvegetated before construction of the seawall.

Processes such as sedimentation may not only result in large areas devoid of eelgrass plants, but may also reduce shoot density or biomass per unit area (i.e., they may thin the existing eelgrass bed) or result in the formation of gaps in the bed. Thus, surveys that simply record the position of the bed edge are inadequate to assess damage to eelgrass from shoreline alteration, as thinning or gap formation may occur without a change in the position of the edge. To assess whether eelgrass shoot loss (thinning) has occurred at the site, on my May 9, 2008 site visit I compared shoot density between areas of the eelgrass bed in front of 501 and 505 1st street and areas of the bed in front of adjacent properties (in which rip-rap remains along the shoreline). I measured the density of eelgrass shoots by counting the number of shoots within a 0.25 m² quadrat at 5 meter intervals along a 100 m transect line laid parallel to the shoreline (Figure 5, Table 1). I also compared shoots densities between quadrats laid haphazardly throughout the shallow water in front of 505 1st street and areas of the eelgrass bed to the southeast of 505 1st street. The most obvious feature of this survey was the area in front of 501 1st street in which shoot densities consistently were zero (though a previous survey by JNE and Associates, Inc. in 2007 found "scattered shoots" in this area, I found no shoots at all). However, within areas that still contain eelgrass in front of 501 and 505 1st street. shoot densities were not lower than in neighboring areas of the eelgrass bed. Additionally, I saw reproductive shoots containing seeds within the eelgrass in front of 505 1st street as well as in neighboring areas of the eelgrass bed. The presence of reproductive shoots, combined with the fact that densities are comparable to other areas of the eelgrass bed, suggests that the remaining eelgrass is functioning normally as of May 2008. I was unable to find any data within the records that I reviewed for this report on shoot densities from the time of shoreline alteration to the present for comparative purposes.

D. Other potential impacts of shoreline alteration.

Removal of rip-rap from the shoreline may have direct effects on eelgrass (e.g. sedimentation) but also have indirect effects on eelgrass. In San Diego Bay and Mission Bay, rip-rap provides habitat to a variety of attached organisms (e.g. oysters, scallops, mussels, algae, sponges, etc.) including a snail known as the festive murex (*Pteropurpura festiva*). The festive murex is a primary predator of an introduced species that has colonized eelgrass in San Diego Bay and Mission Bay known as the Asian mussel (*Musculista senhousia*; Reusch 1998). Asian mussels are small bivalves that live within the sediment attached to eelgrass rhizomes. The Asian mussel was introduced to Mission Bay and San Diego Bay from Japan in the 1960s, and it now is the most abundant organism living within the sediments in many areas of both bays. Asian mussels are troublesome because at high densities, they form a byssal cocoon in which many individual mussels live within a mat of interwoven byssal threads (byssal threads are thin threadlike structures secreted by mussels to anchor themselves to other objects). These mussel mats reduce the density of eelgrass in San Diego Bay and Mission Bay (Reusch and Williams 1998). Thus, by removing habitat for predators of this introduced species, damage to eelgrass could occur from higher Asian mussel survival rates and densities.

On my May 9, 2008 site visit I examined sediments within the eelgrass bed in front of 501 and 505 1st street, as well as adjacent beds, for the presence of Asian mussels. No Asian mussels were detected in my survey, suggesting that either (1) they have not yet colonized this eelgrass bed, or (2)

P. festiva from rip-rap remaining in front of adjacent properties and/or other predators known to consume mussels (e.g. birds) are able to control mussel densities. Nonetheless, this type of potential indirect effect on eelgrass should be considered when shoreline alteration projects take place (in particular the removal of rip-rap) and further monitoring of the eelgrass at this site should include surveys for the presence of Asian mussels.

4. Conclusions

It is my opinion that rip-rap removal and seawall construction likely account for the vast majority of intertidal eelgrass loss in front of 501 1st street and in front of a portion of the neighboring park. Loss of eelgrass in front of 505 1st street occurred due to these activities, but seagrass now is present in that area. As of May 2008 a 1,003 m² area that previously contained eelgrass remains unvegetated.

Following the guidelines of the Southern California Eelgrass Mitigation Policy, eelgrass could be restored to this site by transplanting from nearby established eelgrass beds. Natural regrowth of eelgrass also may occur at the site. However, the success of any transplanting that takes place and the likelihood of eelgrass regrowth will depend on whether sediment continues to move from the beach to the intertidal zone. Success also may depend on whether sediment transport to the intertidal zone has lengthened patterns of emersion (exposure to air) for eelgrass. A careful evaluation of the suitability of the site for eelgrass growth should be made before any transplanting is attempted.

5. <u>Literature cited</u>

- Fonseca, M., W. Kenworthy, and G. Thayer. 1998. Guidelines for the conservation and restoration of seagrasses in the United States and adjacent waters. 12, National Oceanic and Atmospheric Association, Silver Spring.
- Hemminga, M. and C. Duarte. 2000. <u>Seagrass ecology</u>. Cambridge University Press, Cambridge, U.K.
- Mills, K.E. and M.S. Fonseca. 2003. Mortality and productivity of eelgrass *Zostera marina* under conditions of experimental burial with two sediment types. Marine Ecology Progress Series 255: 127-134.
- National Marine Fisheries Service. 1991. Southern California Eelgrass Mitigation Policy.
- Orth, R., and J. van Montfrans. 1982. Structural and functional aspects of the biology of submerged aquatic macrophyte communities in the lower Chesapeake Bay. *in* R. Orth and J. van Montfrans, editors. Interactions of resident consumers in a temperate estuarine seagrass community: Vaucluse Shores, Virginia, USA. VIMS-SRAMSOE, Gloucester Point.
- Reusch, T. 1998. Native predators contribute to invasion resistance to the non-indigenous bivalve *Musculista senhousia* in southern California, USA. Marine Ecology Progress Series 170:159-168.
- Reusch, T., and S. Williams. 1998. Variable responses of native eelgrass *Zostera marina* to a non-indigenous bivalve *Musculista senhousia*. Oecologia 113:428-441.
- Santamaría-Gallegos, N., J. Sánchez-Lizaso, and E. Félix-Pico. 2000. Phenology and growth cycle of annual subtidal eelgrass in a subtropical locality. Aquatic Botany 66:329-339.
- Townsend, E., and M. S. Fonseca. 1998. Bioturbation as a potential mechanism influencing spatial heterogeneity of North Carolina seagrass beds. Marine Ecology Progress Series 169:123-132.

U.S. Department of the Navy, Southwest Division (USDoN, SWDIV). 1999. San Diego Bay Integrated Natural Resources Management Plan, and San Diego Unified Port District Public Draft. September 1999. San Diego, CA. Prepared by Tierra Data Systems, Escondido, CA.

Table 1: shoot counts along transect; May 9, 2008			
Distance	Count	Density (m- ²)	Location
0	32	512	west of 501
5	31	496	west of 501
10	25	400	west of 501
15	32	512	west of 501
20	30	480	west of 501
25	0	0	west of 501
30	0	0	west of 501
35	0	0	at 501 p. line
40	0	0	501
45	0	0	501
50	0	0	501
55	0	0	501
60	0	0	501
65	0	0	501/505 p. line
70	45	720	505
75	28	448	505
80	0	0	505
85	0	0	505
90	43	688	505
95	36	576	at 505 p. line
100	30	480	east of 505
105	25	400	east of 505
110	27	432	east of 505
115	50	800	east of 505





Figure 1. Location of 501 1^{st} street adjacent to San Diego Bay, Coronado, CA.



Figure 2. Seawall and exposed beach at 501 and 505 1st street, May 9, 2008.



Figure 3. Photograph of the intertidal zone adjacent to 501 and 505 1st street, Coronado, CA taken on May 9, 2008. Eelgrass can be seen extending from the 501/505 property line to the southeast, and large area devoid of eelgrass can be seen in front of 501 1st street.





Figure 4. Photographs of 501 1st street, Coronado, CA, taken in May 2006 (top) just after rip-rap removal and during seawall construction, and in January 2008 (bottom). Eelgrass is visible as darker areas adjacent to the shoreline.

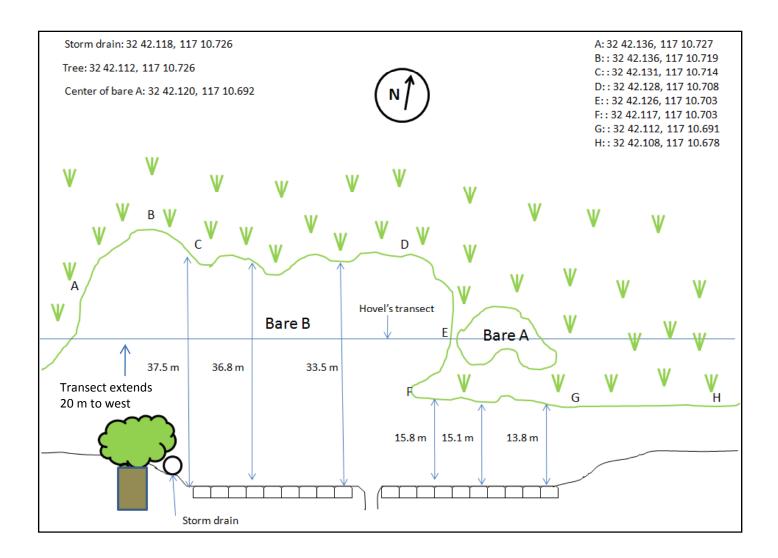


Figure 5. Map of the intertidal area adjacent to 501 and 505 1st street, Coronado, CA, showing distances from the seawall to the shoreward edge of the eelgrass bed on May 9, 2008. Also shown is the location of the transect used to position quadrats for shoot counts, and GPS coordinates for several points along the bed edge.

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PUBLICATIONS (*graduate student author; **undergraduate student author)

- *Selgrath, J.C., K.A. Hovel, and R.A. Wahle. in press. Effects of habitat edges on American lobster abundance and survival. *Journal of Experimental Marine Biology and Ecology* 353: 253-264.
- Hovel, K.A. and H. M. Regan. 2007. Using an individual-based model to examine the roles of habitat fragmentation and behavior on predator-prey relationships in seagrass landscapes. *Landscape Ecology* DOI 10.1007/s10980-007-9148-9.
- *Mai, T.T. and K.A. Hovel. Influence of local-scale and landscape-scale habitat characteristics on California spiny lobster (*Panulirus interruptus*) abundance and survival. *Marine and Freshwater Research* 58: 419-428.
- *Sirota, L. and K.A. Hovel. 2006. Eelgrass (*Zostera marina*) structural complexity: relative effects of shoot length, shoot density, and surface area on epifaunal community composition in San Diego Bay, California, USA. *Marine Ecology Progress Series* 326: 115-131.
- *Reed, B.J. and K.A. Hovel. 2006. Seagrass habitat disturbance: how loss and fragmentation of eelgrass (*Zostera marina*) influences epifaunal abundance and diversity in San Diego Bay, California, USA. *Marine Ecology Progress Series* 326: 133-143.
- **Kushner, R.B. and K.A. Hovel. 2006. Effects of native predators and eelgrass habitat structure on the introduced Asian mussel *Musculista senhousia* in Southern California. *Journal of Experimental Marine Biology and Ecology* 332: 166-177.

- Hovel, K.A. and M.S. Fonseca. 2005. Influence of seagrass landscape structure on the juvenile blue crab habitat-survival function. *Marine Ecology Progress Series* 300: 179-191.
- *Healey, D. and K.A. Hovel. 2004. Seagrass patchiness influences epifaunal abundance and diversity in San Diego Bay, USA. *Journal of Experimental Marine Biology and Ecology* 313: 155-174.
- Hovel, K.A. 2003. Habitat fragmentation in marine landscapes: relative effects of seagrass cover and configuration on juvenile crab survival in California and North Carolina seagrass beds. *Biological Conservation* 110: 401-412
- Hovel, K.A., M.S. Fonseca, D.L. Meyer, W.J. Kenworthy, and P.G. Whitfield. 2002. Effects of seagrass landscape structure, structural complexity and hydrodynamic regime on macrofaunal densities in North Carolina seagrass beds. *Marine Ecology Progress Series* 243: 11-24.
- Hovel, K.A. and R.N. Lipcius. 2002. Effects of seagrass habitat fragmentation on juvenile blue crab survival and abundance. *Journal of Experimental Marine Biology and Ecology* 271: 75-98.
- Hovel, K.A., A. Bartholomew and R.N. Lipcius. 2002. Rapidly entrainable tidal vertical migrations in the salt marsh snail *Littoraria irrorata*. *Estuaries* 24: 808-816.
- Hovel, K.A. and R.N. Lipcius. 2001. Habitat fragmentation in a seagrass landscape: patch size and complexity control blue crab survival. *Ecology* 82: 1814-1829.
- Hovel, K.A. and S.G. Morgan. 1999. Susceptibility of estuarine crab larvae to ultraviolet radiation. *Journal of Experimental Marine Biology and Ecology* 237: 107-125.
- Hovel, K.A. and S.G. Morgan. 1997. Planktivory as a selective force for reproductive synchrony and larval migration. *Marine Ecology Progress Series* 157: 79-95.

SUBMITTED MANUSCRIPTS

*Loflen, C.L. and K.A. Hovel. Behavioral responses by the California spiny lobster (*Panulirus interruptus*) to predation inside and outside a marine protected area. Submitted to Marine Ecology Progress Series.

GRANTS AND CONTRACTS AWARDED (P.I. unless otherwise indicated)

Funding at San Diego State University

San Diego Unified Port District. Seagrass in San Diego Bay: assessing eelgrass habitat function for recreationally important species. Submitted 2007, **funded at \$135,000** for 2 yrs.

California Sea Grant. Spiny lobsters and benthic communities: a bottom-up and top-down approach to evaluating lobster habitat use and survival in southern California. Submitted 2006, **funded at \$237,000** for 3 yrs.

San Diego Foundation Blasker Grants Program. Melding teaching and technology to study predator-prey interactions in San Diego's seagrass habitat. Submitted 2006, **funded at \$30,000** for 1 yr.

California Sea Grant. Shelter use and movement of the California spiny lobster in San Diego County. Submitted 2004, **funded at \$105,000** for 2 yrs.

National Science Foundation (co-PI). Collaborative research: cobble landscape structure, spatial gradients in predation, and variable demographic bottlenecks in the American lobster. Submitted 2002; **funded at \$397,441** for 3 yrs (**\$161,000 to SDSU**).

National Undersea Research Center (co-PI): Cobble nursery landscapes and regional abundance of the American lobster. Submitted 2002, **funded at \$100,000** for 2 yrs (**\$48,000 to SDSU**).

San Diego Unified Port District. Evaluating eelgrass restoration: effects of habitat structure on fish recruitment and epifaunal diversity in San Diego Bay. Submitted 2003, **funded at \$150,000** for 2 yrs.

San Diego Foundation Blasker Grants Program. Nursery habitats for the California spiny lobster. Submitted 2002, **funded at \$27,000** for 1 yr.

San Diego State University Grant-in-Aid. Ecology and conservation of the California spiny lobster. Submitted 2001, **funded for \$8,000** for 1 yr

San Diego State University Research, Scholarly and Creative Activity. Exploring San Diego's subtidal region using an underwater video system. Submitted 2002, **funded at \$4,805** for 1 yr.

California Department of Transportation (contract). Transplanting and monitoring of eelgrass (*Zostera marina*) at the Coronado Bay Bridge, San Diego, CA. Three contracts from 2001-2003 **funded at \$78,000**.

California Department of Fish and Game (contract; co-PI with M. Edwards, T. Anderson, and B. Hentschel). Review of *Caulerpa taxifolia* eradication project. **Funded at \$12,024** for 1 yr.

Funding previous to San Diego State University

National Research Council Postdoctoral Associateship. The effects of seagrass habitat fragmentation on the blue crab: implications for conservation and effective restoration of critical nursery areas. Submitted 1999, **funded for \$36,000** for 1 yr.

Chesapeake Bay Restoration Fund. Determining the effects of seagrass habitat fragmentation on blue crab survival and abundance. Submitted 1998, **funded for \$5,300** for 1 yr.

Sigma Xi Grants-in-Aid-of-Research. Seagrass habitat fragmentation and blue crab survival. Submitted 1998, **funded at \$600** for 1 yr.

Lerner-Gray Fund for Marine Research. The effects of seagrass habitat structure on juvenile blue crab (*Callinectes sapidus*) survival and abundance. Submitted 1998, **funded at \$600** for 1 yr.

Graduate Student Association, Virginia Institute of Marine Science. Exploring the effects of seagrass habitat structure on blue crab survival using tethering techniques. Submitted 1998, **funded at \$500** for 1 yr.

Student Research Grant, Virginia Institute of Marine Science Faculty Association. Seagrass patch size and structural complexity: joint effects of habitat structure on blue crab survival. Submitted 1997, **funded at \$400** for 1 yr.

Sigma Xi Grants-in-Aid-of-Research. UV and planktivory as selective agents for rapid nocturnal transport of crab larvae from salt marshes. Submitted 1994, **funded at \$400** for 1 yr.

The Sounds Conservancy. The influence of planktivory by fishes on crab larval morphology and behavior. Submitted 1994, **funded at \$1100** for 1 yr.

AWARDS

2004-2005. Outstanding Teacher-Scholar Award, Biology Department, San Diego State. 2002. Best Student Paper, Virginia Institute of Marine Science, College of William and Mary.

INVITED SEMINARS AND SYMPOSIA

2008. Biology Department, University of California, Riverside. Linking lobsters with benthic landscapes: controls on American lobster population dynamics in New England waters

2007. Western Society of Naturalists Presidential Symposium on Marine Reserves, Ventura, CA. Spiny lobsters and marine reserves: what can we learn and what do we know?

2007. Bigelow Labs for Ocean Sciences, Boothbay Harbor, ME. How the other half lives: the behavior of spiny lobsters in Southern California kelp forests

2007. California State University, Long Beach. Linking lobsters with benthic landscapes: controls on American lobster population dynamics in New England waters

2006. Scripps Institution of Oceanography, La Jolla, CA. Linking lobsters with benthic landscapes: controls on American lobster population dynamics in New England waters

2006. California State University, Fullerton. Integrating landscape ecology and seagrass ecology to study the effects of habitat structure on predator-prey dynamics

2006. Center for Environmental Analysis-Centers for Research Excellence in Science and Technology, 7th Annual Conference, CSU Los Angeles. Shelter use and movement of California spiny lobsters in a southern California kelp forest.

2005. Pt. Loma Nazarene University, San Diego CA. Seagrass habitat structure at multiple scales: effects on epifaunal organisms

2004. Marine Sciences Research Center, SUNY Stony Brook. Seagrass landscape ecology: Effects of habitat fragmentation on faunal survival and abundance

- 2004. International Association of Landscape Ecologists Annual Meeting, Las Vegas, NV. Seagrass landscape ecology: Effects of habitat fragmentation on faunal survival and abundance
- 2004. Sonoma State University, Rohnert Park, CA. Seagrass landscape ecology: Effects of habitat fragmentation on faunal survival and abundance
- 2003. Scripps Institution of Oceanography, San Diego, CA. What is habitat fragmentation anyway? Answers from seagrass landscapes
- 2002. Scripps Institution of Oceanography, San Diego, CA. Influence of seagrass habitat fragmentation on epifaunal survival and abundance
- 2002. San Diego Unified Port District, San Diego, CA. Exploring landscape ecology in subtidal seagrass habitats
- 2001. Estuarine Research Federation, St. Pete Beach, FL. Relative effects of seagrass fragmentation, structural complexity and hydrodynamics on macrofaunal abundance
- 2001. Department of Biology, Smith College, Northampton, MA. Ecology and conservation of crabs in fragmented seagrass habitat
- 2001. Department of Biology, Rowan University, Glassboro, NJ. Ecology and conservation of crabs in fragmented seagrass habitat
- 2001. Department of Biology, San Diego State University, San Diego, CA. Effects of seagrass habitat fragmentation on juvenile crab survival and abundance
- 2001. Biological Sciences Department, California Polytechnic University, San Luis Obispo, CA Effects of seagrass habitat fragmentation on juvenile crab survival and abundance
- 2000. Department of Biology, Sonoma State University, Rohnert Park, CA. Comparing the effects of terrestrial and marine habitat fragmentation: a case study using crabs in seagrass
- 2000. University of California at Davis Bodega Marine Laboratory, Bodega Bay, CA. Comparing the effects of terrestrial and marine habitat fragmentation: a case study using crabs in seagrass
- 1999. Department of Biology, Eckerd College, St. Petersburg, FL. Habitat fragmentation and faunal survival: lessons from the marine environment
- 1999. National Oceanic and Atmospheric Administration Center for Coastal Fisheries and Habitat Research, Beaufort, NC. Effects of seagrass habitat fragmentation on juvenile blue crabs survival and abundance

1998. Smithsonian Environmental Research Center, Edgewater, MD. Effects of seagrass habitat fragmentation on juvenile blue crabs survival and abundance

CONTRIBUTED PAPERS (*graduate student author; **undergraduate student author)

- *Moore, E. and **K.A. Hovel**. 2007. Seagrass habitat structure: relative effects of structural complexity and location within patches on epifaunal abundance and diversity. Western Society of Naturalists 88th annual meeting, Ventura, CA.
- *Cheng, B.S. and **K.A. Hovel**. 2007. Invasion resistance to a non-native bivalve in Southern California. Western Society of Naturalists 88th annual meeting, Ventura, CA.
- *Mizerek, T. Regan, H.M., and **K.A. Hovel**. 2007. The combined effects of harvesting and habitat fragmentation on blue crab population persistence. Society for Conservation Biology 21st Annual Meeting, Port Elizabeth, South Africa.
- *Moore, E. and **K.A. Hovel**. 2007. Seagrass habitat structure: relative effects of structural complexity and location within patches on epifaunal abundance and diversity. Benthic Ecology Meeting, Atlanta, GA.
- *Cheng, B.S. and **K.A. Hovel**. 2007. Invasion resistance to a non-native bivalve in Southern California. Benthic Ecology Meeting, Atlanta, GA.
- *Loflen, C.L. and **K.A. Hovel**. 2006. Does the La Jolla ecological reserve protect California spiny lobsters? Western Society of Naturalists 87th annual meeting, Redmond, WA.
- *Selgrath, JC, **K.A. Hovel**, and RA Wahle. 2006. Hot lobster destinations: American lobster distribution in coastal New England. Western Society of Naturalists 87th annual meeting, Redmond, WA.
- **Hovel, K.A.** and H.M. Regan. 2006. Marine habitat structure and predator-prey interactions: integrating effects of landscape structure and structural complexity using an individual-based, spatially explicit model. 21st annual symposium of the US Regional Chapter of the International Association for Landscape Ecology, San Diego, CA.
- *Mizerek, T., H.M. Regan, and **K.A. Hovel**. 2006. The effects of habitat fragmentation and harvesting on blue crab population dynamics in Chesapeake Bay. 21st annual symposium of the US Regional Chapter of the International Association for Landscape Ecology, San Diego, CA.
- *Selgrath, J.C., **K.A. Hovel** and R.A Wahle. 2006. 21st annual symposium of the US Regional Chapter of the International Association for Landscape Ecology, San Diego, CA.
- **Hovel, K.A.** and C.G. Lowe. 2005. Shelter use and movement of spiny lobsters in a southern California kelp forest. Western Society of Naturalists 86th annual meeting, Monterey, CA.

- *Selgrath, J.C., **K.A. Hovel,** and R.A. Wahle. 2005. Edge effects on American lobster (*Homarus americanus*) survival and abundance. Western Society of Naturalists 86th annual meeting, Monterey, CA.
- *Mizerek, T., H.M. Regan, and **K.A. Hovel**. 2005. The effects of density dependence and habitat fragmentation on blue crab populations. Society for Conservation Biology 19th Annual Meeting, Brasilia, Brazil.
- **Hovel, K.A.** and R.A. Wahle. 2005. Regional patterns of juvenile American lobster shelter use, mortality, and movement. Benthic Ecology Meeting, Williamsburg, VA
- *Kushner, R.B. and **K.A. Hovel**. 2005. Effects of the Asian mussel (*Musculista senhousia*) on survival of native bivalves in southern California. Benthic Ecology Meeting, Williamsburg, VA
- *Sirota, L. and **K.A. Hovel.** 2005. Eelgrass habitat structure: separating the effects of shoot density, shoot length, and surface area on epifaunal communities in southern California. Benthic Ecology Meeting, Williamsburg, VA
- *Mai, T.T. and **K.A. Hovel.** 2005. Effects of benthic landscape structure on spiny lobster abundance and survival. Benthic Ecology Meeting, Williamsburg, VA
- *Brown, C., R.A. Wahle, **K.A. Hovel**, and J. Selgrath. 2005. Predators of the American lobster in New England. Benthic Ecology Meeting, Williamsburg, VA
- **Hovel, K.A.** and R.A. Wahle. 2004. Regional patterns of juvenile American lobster shelter use, mortality, and movement. Western Society of Naturalists 85th annual meeting, Rohnert Park, CA
- *Healey, D. and **K.A. Hovel**. 2004. Effects of eelgrass patch size and configuration on emigration and mortality of the speckled scallop. Western Society of Naturalists 85th annual meeting, Rohnert Park, CA
- *Reed, B.J. and **K.A. Hovel.** 2004. Critical thresholds in eelgrass (Zostera marina) habitat loss... going, going, gone? Western Society of Naturalists 85th annual meeting, Rohnert Park, CA
- *Kushner, R.B. and **K.A. Hovel**. 2004. Effects of the Asian mussel (*Musculista senhousia*) on survival of native bivalves in southern California. Western Society of Naturalists 85th annual meeting, Rohnert Park, CA
- *Sirota, L. and **K.A. Hovel.** 2004. Eelgrass habitat structure: separating the effects of shoot density, shoot length, and surface area on epifaunal communities in southern California. Western Society of Naturalists 85th annual meeting, Rohnert Park, CA
- *Mai, T.T. and **K.A. Hovel.** 2004. Effects of benthic landscape structure on spiny lobster abundance and survival. Western Society of Naturalists 85th annual meeting, Rohnert Park, CA
- **Hovel, K.A.** and T.T. Mai. 2002. The search for the spiny lobster. Western Society of Naturalists 83rd annual meeting, Monterey, CA

- **Kushner, R.B. and **K.A. Hovel**. 2002. Effects of eelgrass habitat structure on density-dependent mortality in an invasive mussel. Western Society of Naturalists 83rd annual meeting, Monterey, CA
- *Healey, D. and **K.A. Hovel**. 2002. Single large or several small? Effects of eelgrass spatial configuration on epifaunal colonization and diversity. Western Society of Naturalists 83rd annual meeting, Monterey, CA
- **Hovel, K.A.** 2001. Relative effects of seagrass fragmentation, structural complexity and hydrodynamics on macrofaunal abundance. Estuarine Research Federation 2001, St. Pete Beach, FL
- **Hovel, K.A**. 2001. Modeling the effects of seagrass habitat fragmentation on juvenile crab survival in a seagrass landscape. 2nd Symposium on Marine Conservation Biology, San Francisco, CA
- **Hovel, K.A.** 2000. Does seagrass habitat fragmentation influence the juvenile blue crab habitat-survival function? 25th Annual Benthic Ecology Meeting, Wilmington, NC
- **Hovel, K.A.** 1999. Seagrass patch size and complexity control blue crab survival. 24th Annual Benthic Ecology Meeting, Baton Rouge, LA
- **Hovel, K.A.** 1999. What determines blue crab (*Callinectes sapidus*) abundance in seagrass habitats? American Fisheries Society, Southeast Chapter, Gloucester Point, VA
- **Hovel, K.A.** 1998. Rapidly entrainable tidal vertical migrations in the salt marsh periwinkle. 23rd Annual Benthic Ecology Meeting, Melbourne, FL
- **Hovel, K.A.** 1997. The effects of ultraviolet radiation on the larvae of three salt marsh crabs. 22nd Annual Benthic Ecology Meeting, Portland, ME
- **Hovel, K.A.** 1996. UV and planktivory as selective agents for rapid nocturnal transport of crab larvae from salt marshes. 21st Annual Benthic Ecology Meeting, Columbia, SC
- **Hovel, K.A.** 1995. Does behavior or morphology influence crab larval susceptibility to ultraviolet radiation? University of Houston Life Sciences Poster Session

TEACHING EXPERIENCE

Courses taught at San Diego State University
Marine Ecology (BIOL 517) – Spring 2002, 2003, 2004, 2005, 2006

Ecology and the Environment (BIOL 354) – Fall 2004, Fall 2005 Biostatistics (BIOL 215) – Fall 2005 Marine Ecology Graduate Seminar (BIOL 604) – Fall 2004 Life in the Sea (BIOL 324) – Fall 2003, Fall 200 Marine Conservation Biology (BIOL 600) – Fall 2002, Fall 2006

Courses taught previous to San Diego State University

Biology and Marine Biology – Summer 2001 - Pre-college programs at Sonoma State University Invertebrate Biology (BIOL 350) – Spring 2001 – Sonoma State University

Ecology (BIOL 300) – Fall 2000 – Sonoma State University

Genetics, Evolution & Ecology (BIOL 122) - Fall 2000, Spring 2001 – Sonoma State University Ecology laboratory – Spring 1995, Summer 1995 - University of Houston

Invertebrate Biology laboratory – Fall 1995 – University of Houston

Introductory Biology laboratory – Spring 1993, Fall 1992, Spring 1992 – State University of New York at Stony Brook

SELECTED ACADEMIC SERVICES

2003 - 2005: Mentor, Aquatic Adventures (afterschool science program for at-risk youth).

2002 – 2005: Advisor or supervisor, SDSU honors thesis program (2 students), SDSU

Undergraduate Independent Study Program (10 students)

2002 – 2005. Thesis committee chair, SDSU graduate program in biology (6 students)

2003 - 2004. Coordinator, Ecology and Evolutionary Biology Seminar Series, SDSU

2000: Mentor for undergraduates, NOAA Center for Coastal Fisheries and Habitat Research

1999: Chair, Virginia Institute of Marine Science Minigrants Committee.

1998: Mentor for high school students performing research at the Virginia Institute of Marine Science as part of the Virginia Governor's School Program.

Attachment 9 Water Quality Certification File No. 05C-041



California Re Lal Water Quality Comrol Board

San Diego Region

Over 50 Years Serving San Diego, Orange, and Riverside Counties Recipient of the 2004 Environmental Aware for Outstanding Achievement from USEPA

Arnold Schwarzenegger Governor

Alan C. Lloyd, Ph.D. Secretary for Environmental Protection

9174 Sky Park Court, Suite 100, San Diego, California 92123 Phone (858) 467-2952 • FAX (858) 571-6972 http://www.waterboards.ca.gov/sandiego

Action on Request for Clean Water Act Section 401 Water Quality Certification and Waiver of Waste Discharge Requirements for Discharge of Dredged and/or Fill Materials

PROJECT:

Riprap Replacement 501 First Street Coronado (File No. 05C-041)

APPLICANT:

Bill and Heidi Dickerson

501 First Street

Coronado, CA 92118

ACTION:

Order for Low Impact Certification

Order for Denial of Certification

Order for Technically-conditioned Certification

Waiver of Waste Discharge Requirements

STANDARD CONDITIONS:

The following three standard conditions apply to all certification actions, except as noted under Condition 3 for denials (Action 3).

- 1. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the California Water Code and section 3867 of Title 23 of the California Code of Regulations (23 CCR).
- 2. This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
- The validity of any non-denial certification action (Actions 1 and 2) shall be conditioned upon total payment of the full fee required under 23 CCR section 3833, unless otherwise stated in writing by the certifying agency.

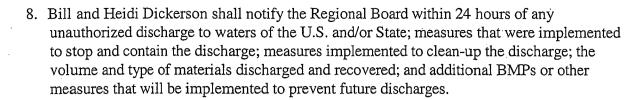
18-2005041.027

ADDITIONAL CONDITIONS:

In addition to the three standard conditions, Bill and Heidi Dickerson shall satisfy the following:

A. GENERAL CONDITIONS

- 1. Bill and Heidi Dickerson shall, at all times, fully comply with the engineering plans, specifications and technical reports submitted with this application for 401 Water Quality Certification and all subsequent submittals required as part of this certification.
- 2. Bill and Heidi Dickerson shall comply with the applicable requirements of State Water Resources Control Board Water Quality Order No. 99-08-DWQ, the NPDES General Permit for Storm Water Discharges Associated with Construction Activity.
- 3. Bill and Heidi Dickerson shall maintain a copy of this certification at the project site so as to be available at all times to site personnel and agencies.
- 4. Prior to the start of the project, Bill and Heidi Dickerson shall educate all personnel on the requirements in this certification, pollution prevention measures, spill response, and best management practices.
- 5. Bill and Heidi Dickerson shall permit the San Diego Regional Water Quality Control Board (Regional Board) or its authorized representative at all times, upon presentation of credentials:
 - a) Entry onto project premises, including all areas on which wetland fill or wetland mitigation is located or in which records are kept.
 - b) Access to copy any records required to be kept under the terms and conditions of this certification.
 - c) Inspection of any treatment equipment, monitoring equipment, or monitoring method required by this certification.
 - d) Sampling of any discharge or surface water covered by this Order.
- 6. Bill and Heidi Dickerson shall comply with all policies of the State Water Resources Control Board and Regional Board.
- 7. In the event the Army Corps of Engineers determines that waters of the United States are isolated, this certification is revoked and the applicant will be required to submit a Report of Waste Discharge to the Regional Board, and receive Waste Discharge Requirements prior to project implementation.



- 9. Bill and Heidi Dickerson shall, at all times, maintain appropriate types and sufficient quantities of materials onsite to contain any spill or inadvertent release of materials that may cause a condition of pollution or nuisance if the materials reached a waters of the U.S. and/or State.
- 10. This Certification is not transferable to any person except after notice to the Executive Officer of the Regional Board. The applicant shall submit this notice in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new owner containing a specific date for the transfer of this Certification's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgement that the existing owner is liable for compliance and violations up to the transfer date and that the new owner is liable from the transfer date on.
- 11. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under state law. For purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification.
- 12. In response to a suspected violation of any condition of this certification, the Regional Board may require the holder of any permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the Regional Board deems appropriate, provided that the burden, including costs, of the reports shall be a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.
- 13. In response to any violation of the conditions of this certification, the Regional Board may add to or modify the conditions of this certification as appropriate to ensure compliance.
- 14. In accordance with the Water Quality Control Plan for the San Diego Basin (9) (Basin Plan), the conditions specified in this Water Quality Certification constitute the conditions for waiving waste discharge requirements. This waiver of waste discharge requirements may be terminated or modified for cause including but not limited to a violation of any condition specified in this Water Quality Certification.

B. BEST MANAGEMENT PRACTICES

- 1. All work shall be conducted when the area where riprap is to be placed is exposed and not submerged under water.
- 2. New riprap shall only be placed within the footprint of the existing rubble shore protection.

C. REPORTING

- 1. All information requested in this Certification is pursuant to California Water Code (CWC) section 13267. Civil liability may be administratively imposed by the Regional Board for failure to furnish requested information pursuant to CWC section 13268.
- 2. All applications, reports, or information submitted to the Regional Board shall be signed and certified as follows:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

3. Bill and Heidi Dickerson shall submit reports required under this certification, or other information required by the Regional Board, to:

Executive Officer
California Regional Water Quality Control Board, San Diego Region
Attn: 401 Certification; File No. 05C-041
9174 Sky Park Court, Suite 100
San Diego, California 92123

PUBLIC NOTIFICATION OF PROJECT APPLICATION:

On May 26, 2005, receipt of the project application was posted on the Regional Board web site to serve as appropriate notification to the public.

REGIONAL WATER QUALITY CONTROL BOARD CONTACT PERSON:

Phil Hammer
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123
858-627-3988
phammer@waterboards.ca.gov

7/28/2005 Date



I hereby certify that the proposed discharge from the Riprap Replacement 501 First Street Coronado project (File No. 05C-041)will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under California Regional Water Quality Control Board, San Diego Region, Waiver of Waste Discharge Requirements (Waiver Policy) No. 17. Please note that this waiver is conditional and, should new information come to our attention that indicates a water quality problem, the Regional Board may issue waste discharge requirements at that time.

Except insofar as may be modified by any preceding conditions, all certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the applicants' project description and/or on the attached Project Information Sheet, and (b) on compliance with all applicable requirements of the Regional Water Ouality Control Board's Water Quality Control Plan (Basin Plan).

John H. Robertus

Executive Officer

Regional Water Quality Control Board

Attachments:

1. Project Information

2. Distribution List

ATTACHMENT 1 PROJECT INFORMATION

Applicant:

Bill and Heidi Dickerson

501 First Street

Coronado, CA 92118 Phone: 702-218-7331

Applicant

Representatives:

Jean Nichols

JNE & Associates

2608 Shelter Island Drive San Diego, CA 92106

Project Name:

Riprap Replacement 501 First Street Coronado

Project Location:

The project is located at 501 First Street in Coronado, California, on San Diego Bay. Assessors Parcel Number 536-030-0100. Lat. 32°42'6.35".

Long. 117°10'39.97".

Type of Project:

Shoreline Protection

Project Description:

The proposed project includes the removal (approximately 450 cubic yards) and replacement (approximately 404 cubic yards) of existing

riprap. Filter fabric and quarry riprap will be placed between

approximately +1 and +4 Mean Lower Low Water along approximately 80 feet of shoreline. Surface area will total approximately 480 square

feet.

Federal Agency/Permit:

U.S. Army Corps of Engineers, Nationwide Permit # 43

Other Required Regulatory

Approvals:

The Port of San Diego found the project to conform with the Port Master

Plan on July 18, 2005.

California Environmental
Quality Act (CEQA)

Compliance:

The Port of San Diego found the project to be Categorically Exempt under

section 15302 (Replacement or Reconstruction) on July 18, 2005.

Receiving Water:

San Diego Bay at Coronado Island (Coronado Hydrologic Subarea

(910.10)

Impacted Waters of the

United States:

Implementation of the proposed project will permanently impact 0.01 acre

of previously impacted bay waters and 80 linear feet of previously

impacted shoreline.

Dredge Volume:

Not Applicable.

Related Projects Implemented/to be Implemented by the Applicant(s): None

Compensatory Mitigation:

None

Best Management Practices:

Bill and Heidi Dickerson shall comply with the applicable requirements of State Water Resources Control Board Water Quality Order No. 99-08-DWQ, the NPDES General Permit for Storm Water Discharges Associated with Construction Activity.

All work shall be conducted when the area where riprap is to be placed is exposed and not submerged under water.

New riprap shall only be placed within the footprint of the existing rubble shore protection.

Public Notice:

On May 26, 2005, receipt of the project application was posted on the Regional Board web site to serve as appropriate notification to the public.

Fees:

Total Due: \$500

Total Paid (Check No.): \$500 (1188)

ATTACHMENT 2 DISTRIBUTION LIST

Jean Nichols JNE & Associates 2608 Shelter Island Drive San Diego, CA 92106

U.S. Army Corps of Engineers Regulatory Branch 16885 W. Bernardo Dr., Suite 300 A San Diego, CA 92127 (858) 674-5388 (fax)

U.S. Army Corps of Engineers Regulatory Branch P.O. Box 532711 Los Angeles, CA 90053-2325 (213) 452-4196 (fax)

State Water Resources Control Board Division of Water Quality

Attachment 10 Port Topography Surveys

10f1 SDUPD Field Surveys JAN 31, 2007 Sefkow, Moreno Survey Port Date: Scale: Unified Port of San Diego San Diego, Ca. 20/91/2 00, ÷ ÷ COMPARE EEL GRASS LIMITS OF VARIOUS SURVEYS at 501 and 505 First Street BEACH TOPOGRAPHY SURVEYS Approximate limits of eel grass, location taken from paper chart recorded during hydrographic survey In-board limits of OCT 09, 2006 CONTOUR JAN 19, 2007 CONTOUR eel grass from field survey 01-19-07. 10-05-06NORTH /

(12 to hing