



DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
1455 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94103-1398

DEPARTMENT OF THE ARMY REGIONAL GENERAL PERMIT

PERMITTEE: National Marine Fisheries Service (NMFS)

PERMIT NO.: 2013-00408N

ISSUING OFFICE: San Francisco District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate District or Division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below:

PROJECT DESCRIPTION: This Regional General Permit (RGP) authorizes the National Marine Fisheries Service (NMFS) to conduct work within waters of the United States related to the restoration, rehabilitation, and expansion of eelgrass (*Zostera marina*) within San Francisco Bay. Restoration activities will consist of planting approximately 46.8 acres of eelgrass and the removal of artificial structures which inhibit eelgrass expansion. Up to nine acres of eelgrass restoration per year is authorized under this RGP.

Planting Methods:

The two methods of eelgrass restoration planting are authorized: bareroot transplanting and seed buoys. Work shall occur between May and November.

1. Bareroot transplanting involves collecting vegetative shoots connected to a portion of the rhizome, and then manually planting them individually or in bunches using biodegradable anchors, such as bamboo skewers, to anchor them in the substrate. These transplants shall be placed in 1 meter² quadrats that have an average of 64 planting units. The number of quadrats at a site would be dependent upon the size of the site or planting conditions specific to the site.
2. Seed buoy restoration involves suspending flowering eelgrass shoots in mesh bags buoyed above the sediment of targeted restoration areas. Buoys would be anchored in place temporarily with cinderblocks measuring 39.4 x 19 x 8.9 centimeters. Cinderblocks will be spaced between one to five meters apart such that a one acre planting zone will have approximately 10 cinder blocks.

Debris Removal:

Artificial structures, debris typically found in the intertidal mudflat zone such as old tires, old fishing gear, anchors, abandoned vessels, wood piles, and creosote-treated wood, or general debris may inhibit restoration, rehabilitation, and expansion of eelgrass. This RGP authorizes the removal of artificial structures and debris as described above from a planting area and immediately adjacent areas. Removal work shall be conducted on-shore to the extent feasible with the use of equipment such as a crane truck. Debris removal shall occur between June and November.

All work shall be completed in accordance with the plans and drawings titled "USACE File 2013-00408N, Eelgrass Restoration, Rehabilitation, and Expansion Projects in San Francisco Bay by NMFS, 05 June 2015, Figure 1 to 18 provided as enclosure 1.

PROJECT LOCATION: Fifteen sites in San Francisco Bay, California as depicted in enclosure 1, figure 1; including San Rafael Bay, Corte Madera Bay, Richardson Bay, and San Pablo Bay (enclosure 1, figures 2 to 16), within a depth range of -5.4 and -0.3 meters Mean Lower Low Water.

PERMIT CONDITIONS:

GENERAL CONDITIONS:

1. The time limit for completing the work authorized ends on 31 December 2020. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity..
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. For your convenience, a copy of the water quality certification or waiver is attached. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit.
5. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.
6. You understand and agree that, if future operations by the United States require the removal, relocation or other alteration of the structure or work authorized herein, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, you will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

SPECIAL CONDITIONS:

1. The NMFS has concurred with the determination that the project was not likely to adversely affect Central Valley spring run Chinook salmon (*Oncorhynchus tshawytscha*), Central California Coast steelhead (*Oncorhynchus mykiss*), California Central Valley steelhead (*O. tshawytscha*), North American Green Sturgeon southern DPS (*Acipenser medirostris*), Sacramento River winter run Chinook salmon (*O. tshawytscha*), and designated critical habitat for these species. This concurrence was premised, in part, on project work restrictions outlined in enclosure 3. These work restrictions are incorporated as special conditions to this authorization for your project to ensure unauthorized incidental take of species and loss of critical habitat does not occur.
2. A work plan for each year's proposed restoration activities shall be submitted to the Corps at least 60 days prior to the start of restoration work for the year. At a minimum, these notifications shall include work descriptions, locations with maps, estimated acres, estimated volume of fill to be placed, and schedules for restoration activities expected to be implemented. The Corps will provide notification within 30 days if any of the proposed work is determined to have more than minimal adverse impacts and therefore not authorized by this permit.
3. An annual report on work completed shall be submitted no later than December 31st. This report shall include a

description of actual work performed, specifically noting any changes from the pre-work notification.

4. Annual monitoring of restored eelgrass beds is required and shall be as non-destructive as possible. Monitoring may involve evaluation of acres created, enhanced or expanded, percent of vegetated cover, shoot density, plant height, seedling recruitment and survival, or other parameters NMFS has identified as necessary to evaluate success of restoration efforts. A comprehensive monitoring report shall be submitted to the Corps by December 31 for five years following the completion of in-water restoration work.
5. Adherence to US Coast Guard procedures shall be followed if any debris to be removed from San Francisco Bay during project implementation poses a risk of hazardous material release, e.g., abandoned vessels.
6. Eelgrass restoration work shall not occur within 350 meters, as measured along the waterway, of the operations of the Port of San Francisco, Port of Oakland, and Port of Richmond berths and basins, or within 350 meters of publically maintained navigation channels, except as can be demonstrated by historic mapping, that eelgrass has previously occupied these areas. Eelgrass restoration shall not be conducted directly within any private or commercially maintained marina.
7. A consistency determination was received by the San Francisco Bay Conservation and Development Commission (C2014.003.00). You must comply with the conditions specified in the certification as special conditions to this permit.
8. NMFS will consult with the San Francisco National Estuarine Research Reserve to assess sediment trapping and deposition for any proposed restoration work along the shoreline of China Camp State Park.
9. Boats used to access restoration sites shall be properly cleaned and shall not anchor in any sensitive habitat. Work shall be as non-destructive to aquatic habitat as possible and limits to the amount of donor material used would be implemented based on supply.
10. No work with vibratory hammer shall be conducted within one mile of potential Ridgeway's rail (*Rallus longirostris obsoletus*) habitat.
11. Silt curtains shall be installed to contain sediment laden water during debris and structure removal. If piles break off, they shall be cut two feet below the mud line or at the mud line when in contaminated sediment.
12. The work period at a site shall be limited to 14 days.
13. Work shall be conducted at low tide.

FURTHER INFORMATION:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
 - (x) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. Section 403).
 - (x) Section 404 of the Clean Water Act (33 U.S.C. Section 1344).
2. Limits of this authorization:
 - a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.

- c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal project.
3. Limits of Federal Liability: In issuing this permit, the Federal Government does not assume any liability for the following:
- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
 - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
 - c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
 - d. Design or construction deficiencies associated with the permitted work.
 - e. Damage claims associated with any future modification, suspension, or revocation of this permit.
4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
5. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
- a. You fail to comply with the terms and conditions of this permit.
 - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate. (See Item 4 above.)
 - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 C.F.R. § 325.7 or enforcement procedures such as those contained in 33 C.F.R. §§ 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 C.F.R. § 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions: General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

(PERMITTEE)

(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

John C. Morrow
Lieutenant Colonel, U.S. Army
District Commander

(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE)

(DATE)

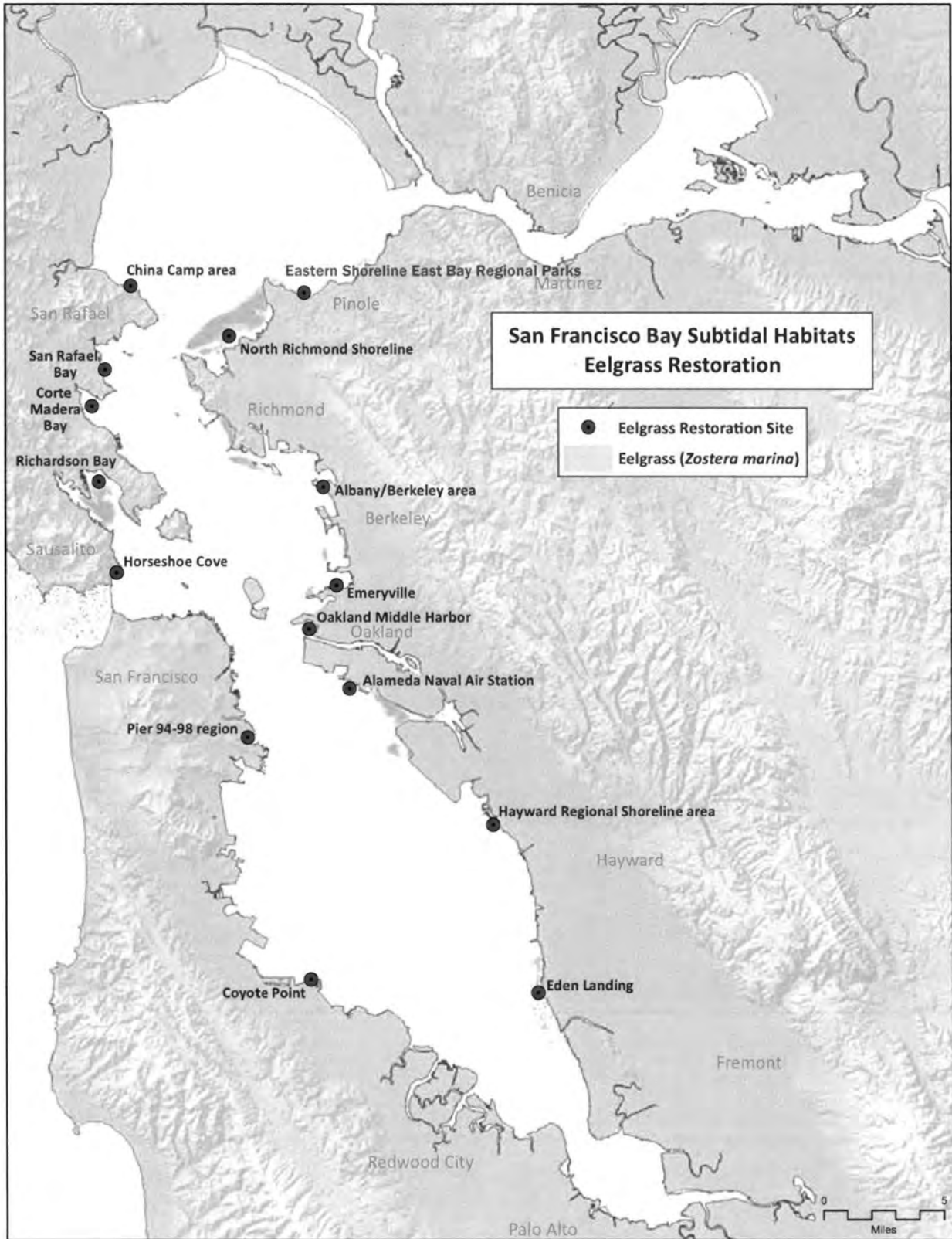



Figure 8-7: Recommended sites for phased native eelgrass restoration in San Francisco Bay.




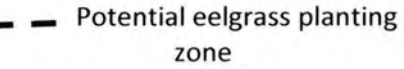
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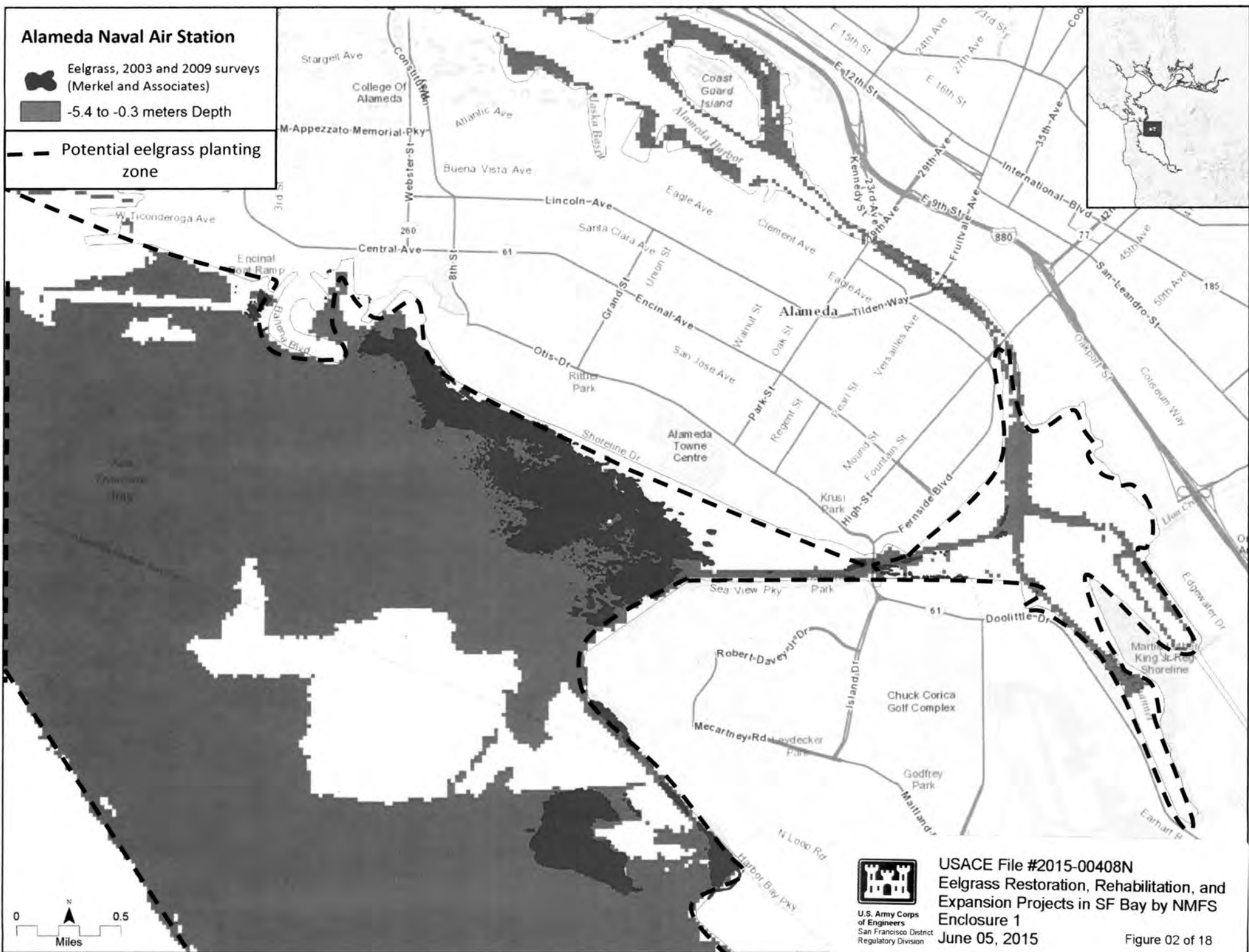
USACE File #2015-00408N
Eelgrass Restoration, Rehabilitation, and
Expansion Projects in SF Bay by NMFS
Enclosure 1
June 05, 2015

Alameda Naval Air Station

 Eelgrass, 2003 and 2009 surveys
(Merkel and Associates)

 -5.4 to -0.3 meters Depth

 Potential eelgrass planting zone

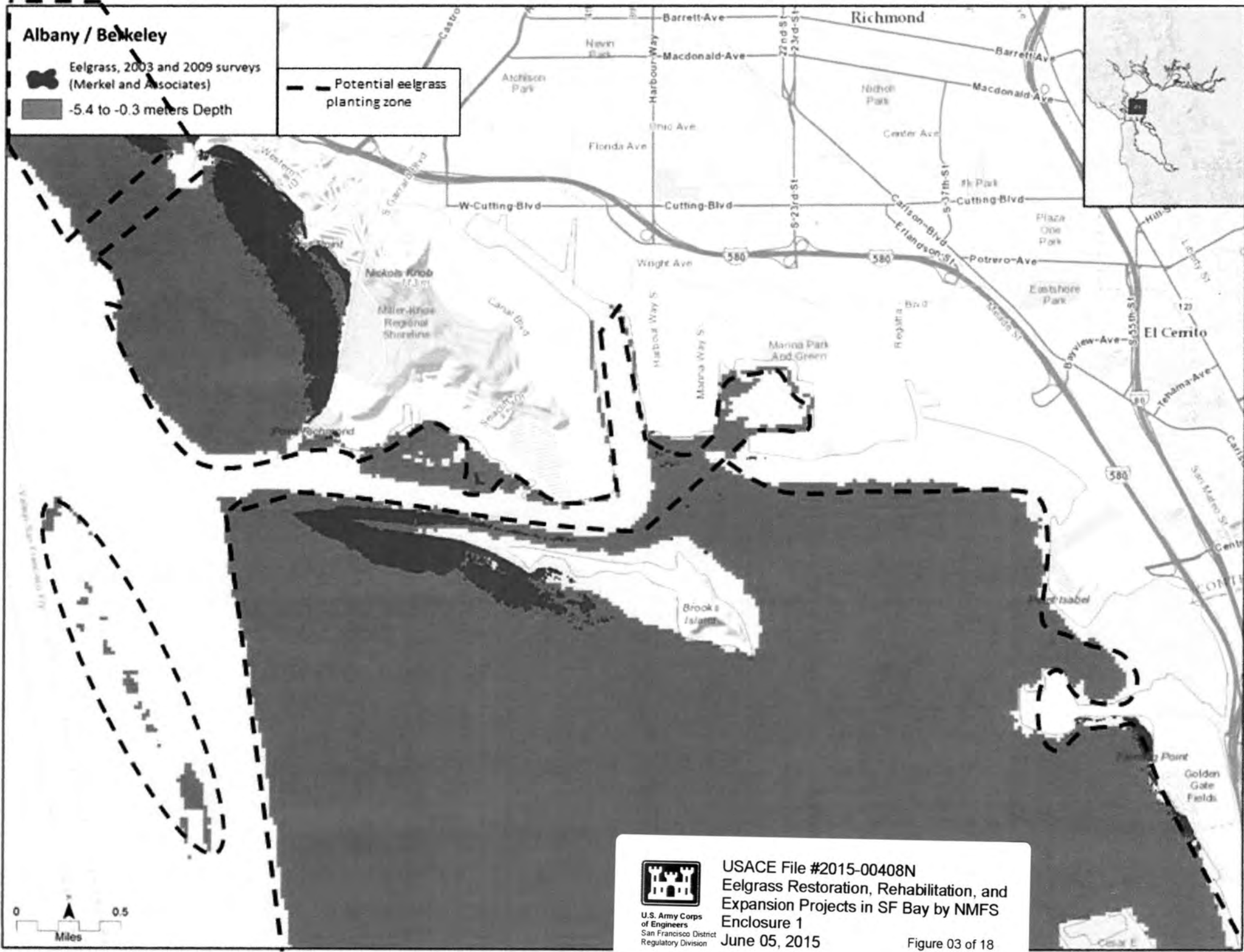


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Albany / Berkeley



- Eelgrass, 2003 and 2009 surveys (Merkel and Associates)
- Potential eelgrass planting zone
- 5.4 to -0.3 meters Depth




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China Camp

-  Eelgrass, 2003 and 2009 surveys (Merkel and Associates)
-  -5.4 to -0.3 meters Depth

-  Potential eelgrass planting zone





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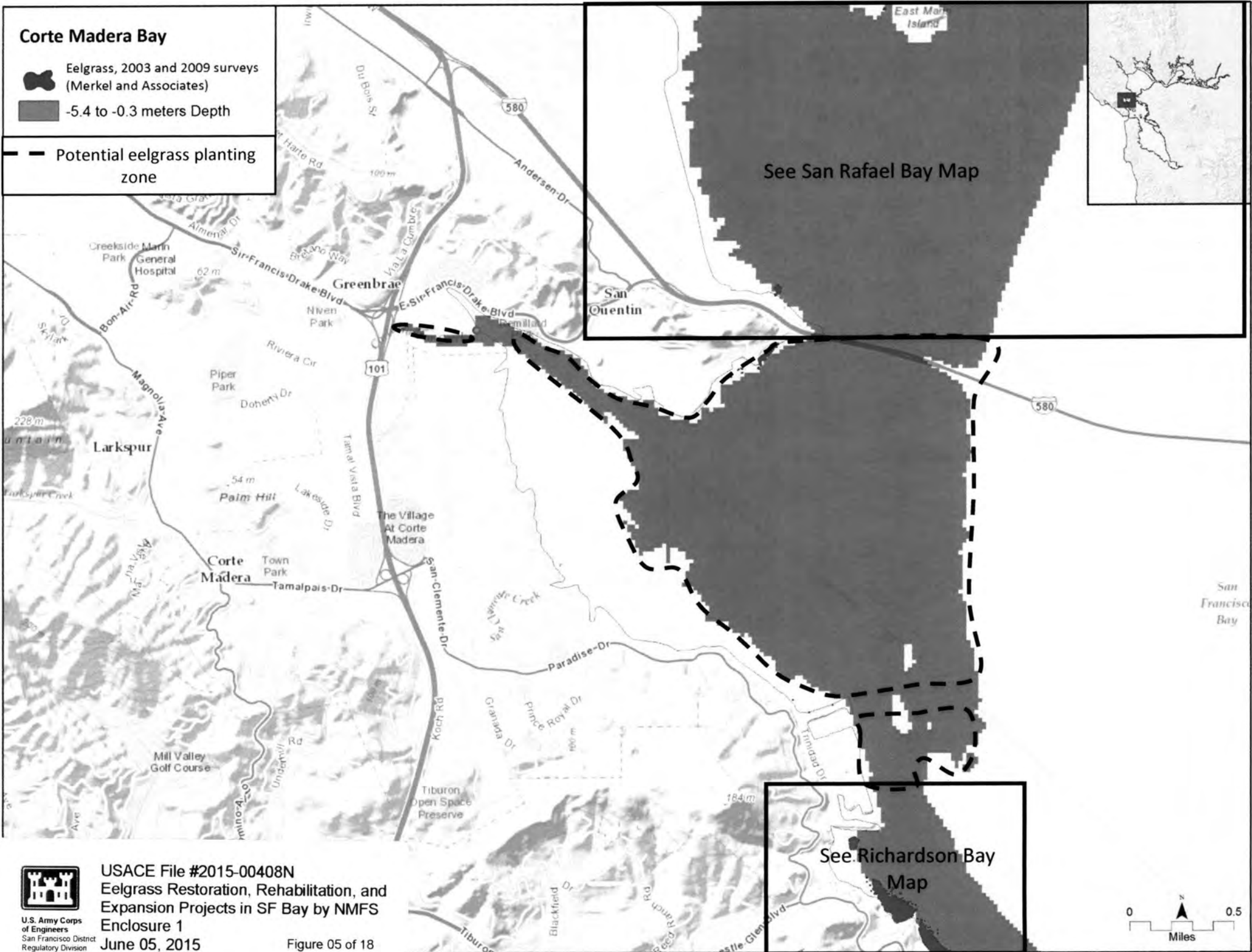
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Corte Madera Bay

-  Eelgrass, 2003 and 2009 surveys (Merkel and Associates)
-  -5.4 to -0.3 meters Depth

 Potential eelgrass planting zone



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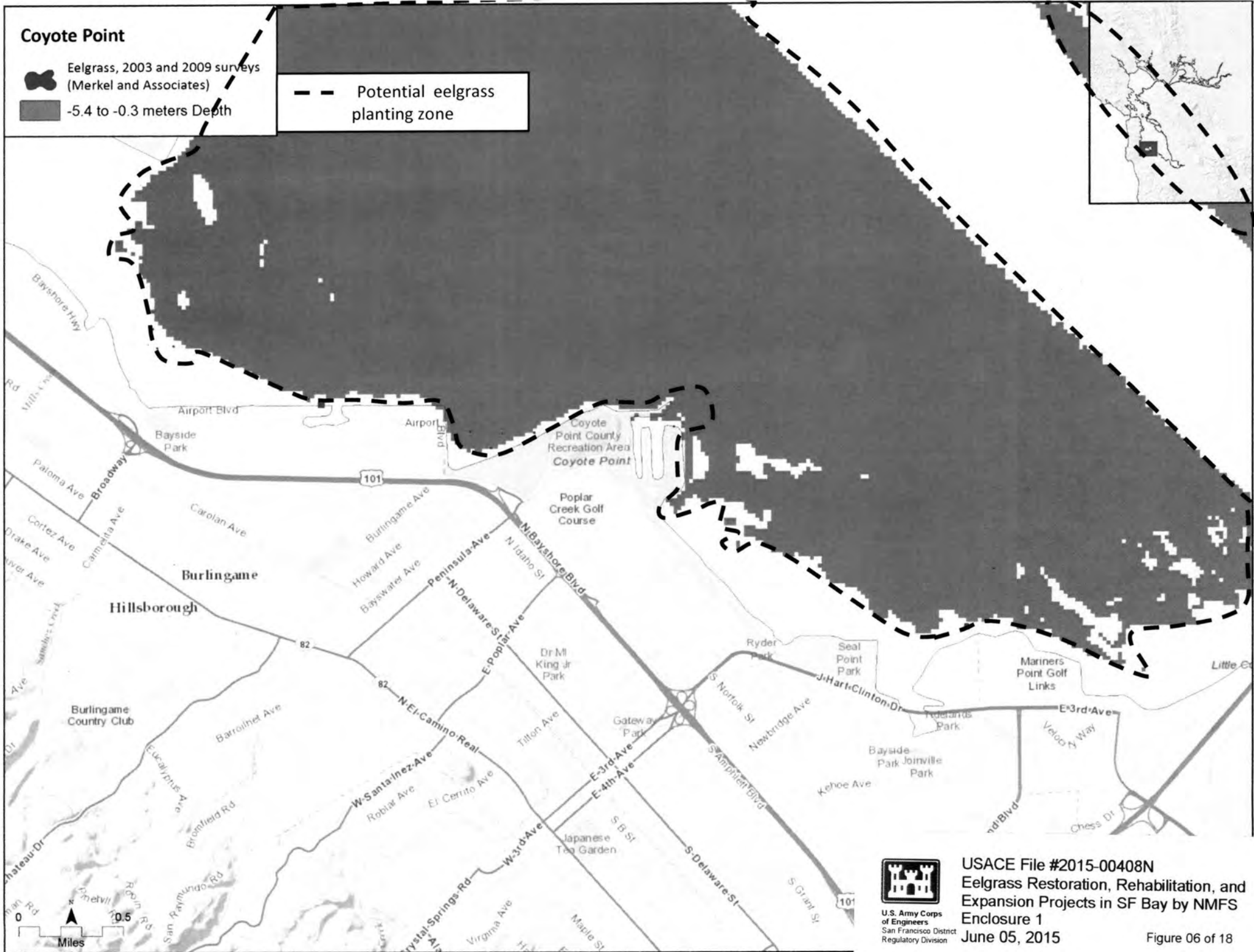
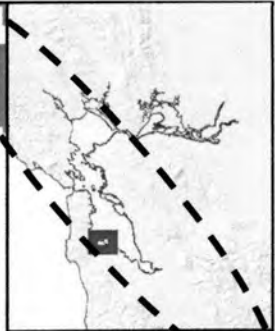
Figure 05 of 18



Coyote Point

-  Eelgrass, 2003 and 2009 surveys (Merkel and Associates)
-  -5.4 to -0.3 meters Depth

-  Potential eelgrass planting zone



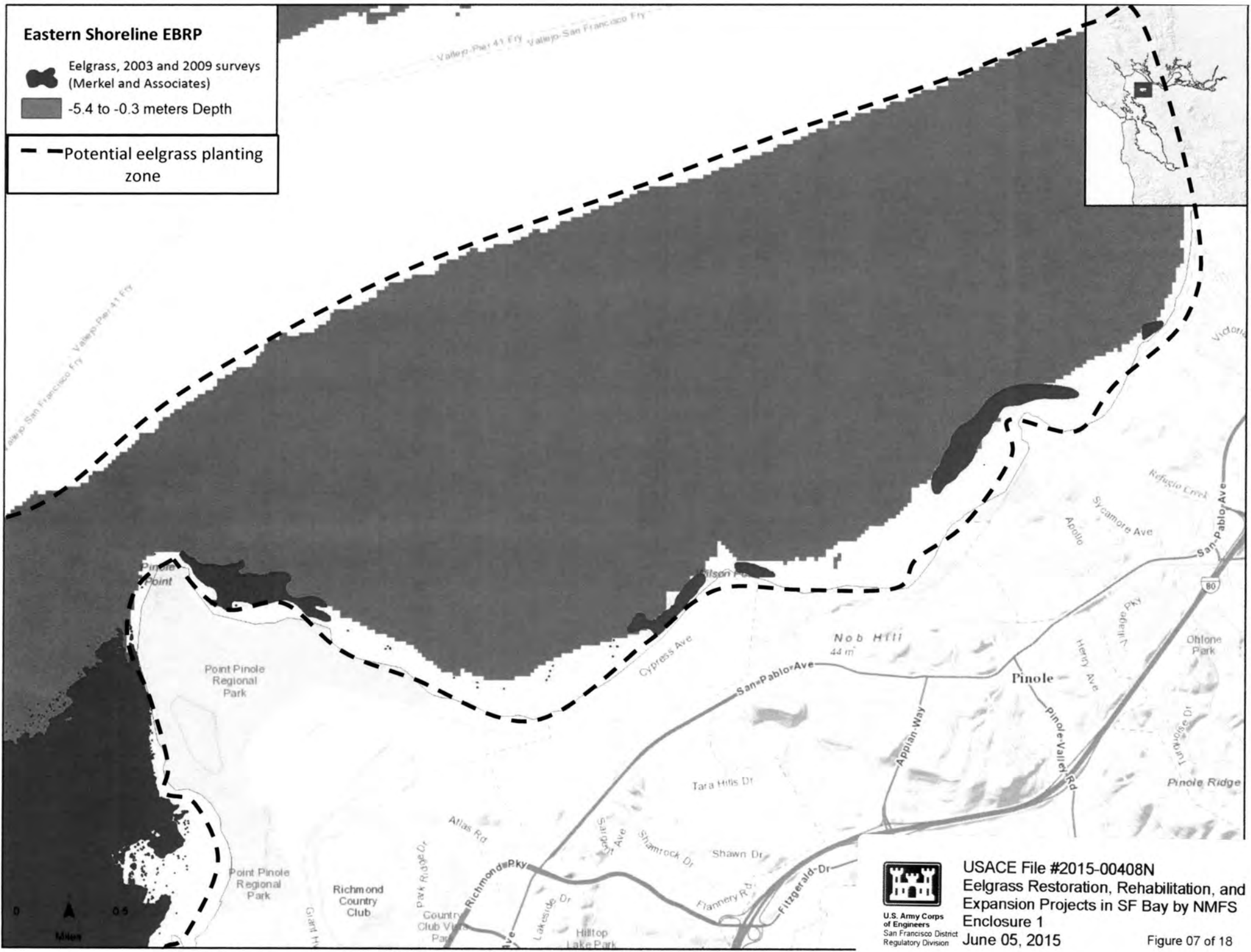
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Eastern Shoreline EBRP



- Eelgrass, 2003 and 2009 surveys (Merkel and Associates)
- 5.4 to -0.3 meters Depth


- Potential eelgrass planting zone

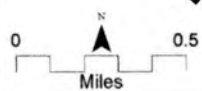
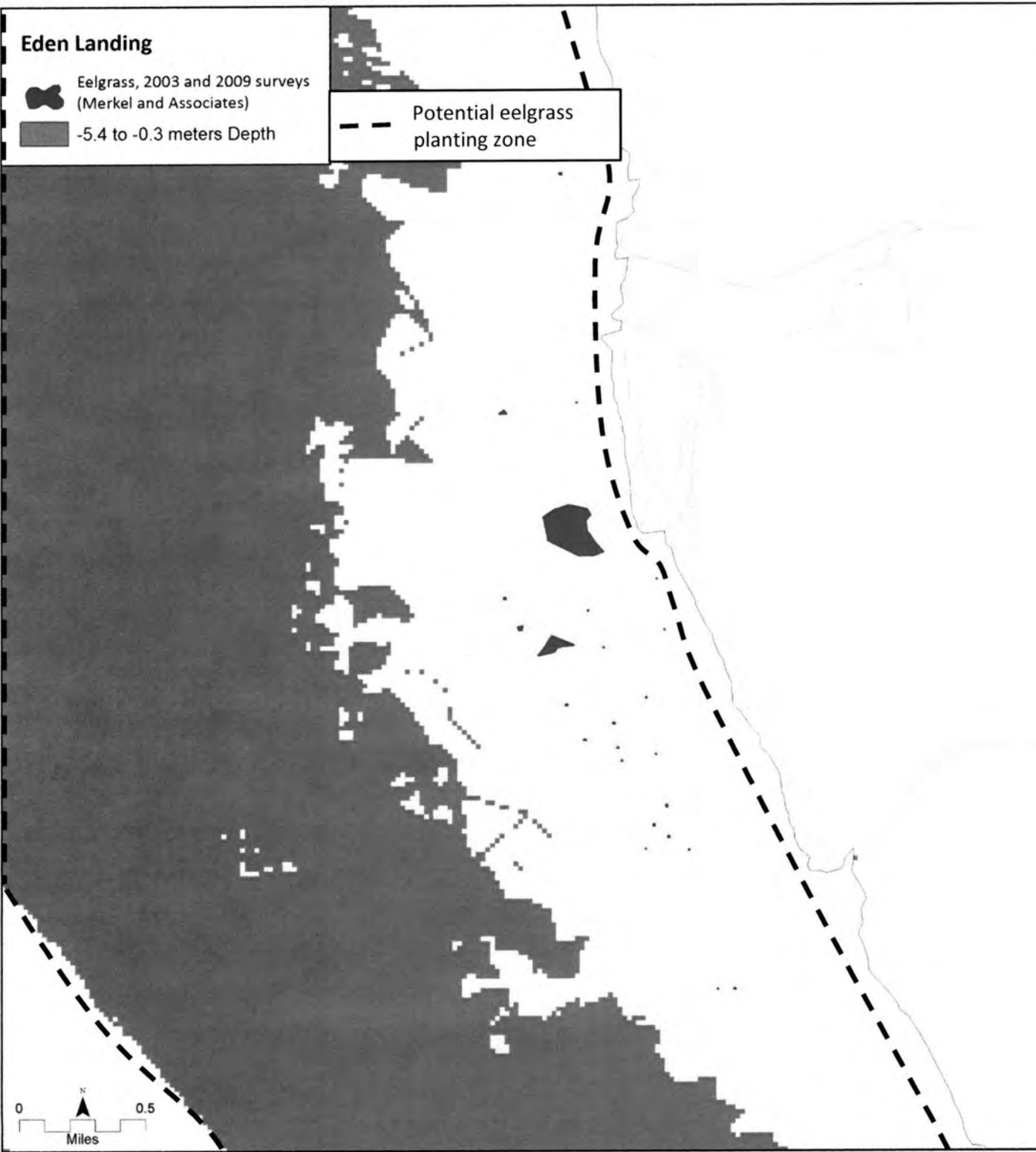


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Eden Landing

-  Eelgrass, 2003 and 2009 surveys (Merkel and Associates)
-  -5.4 to -0.3 meters Depth




-  Potential eelgrass planting zone

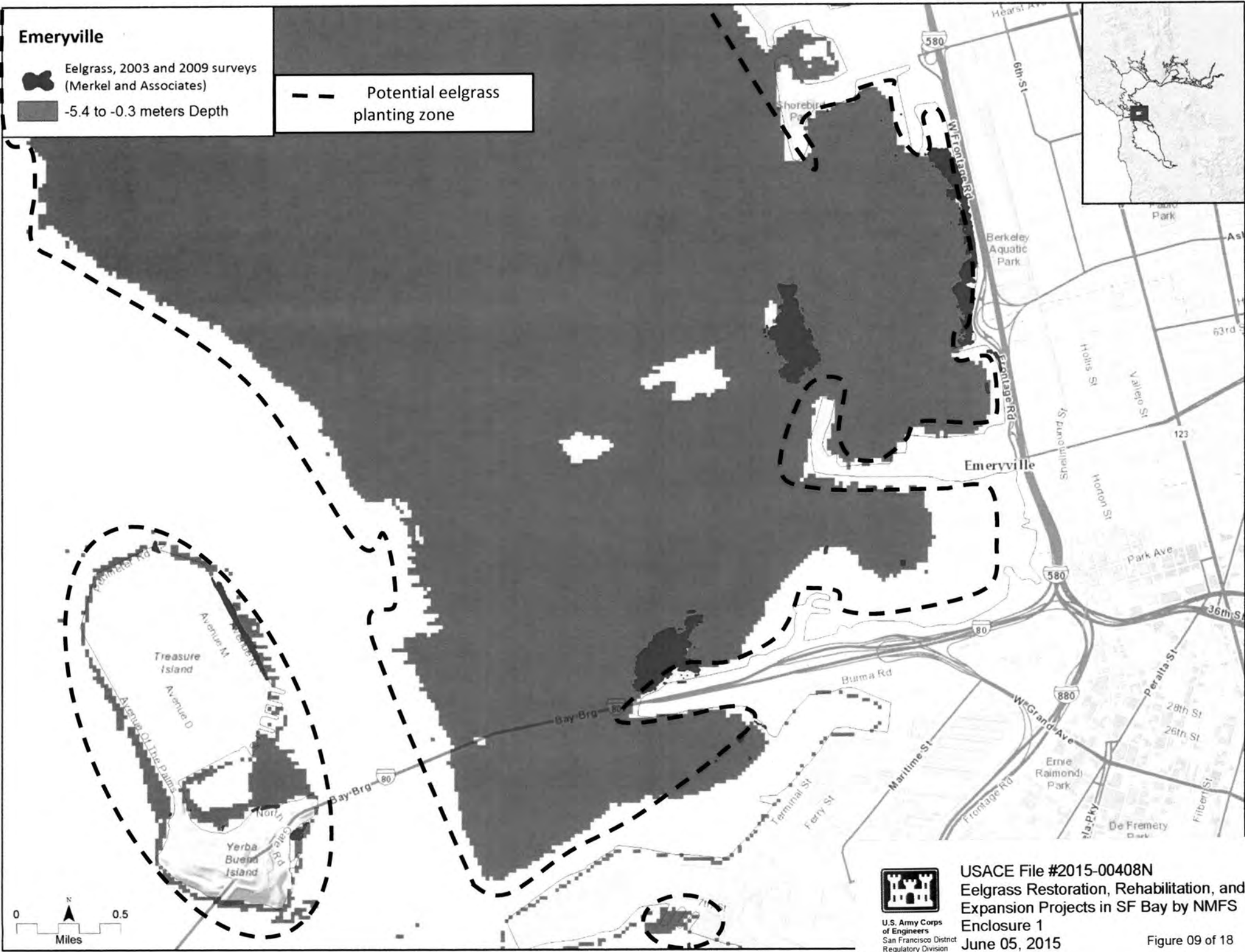


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Emeryville

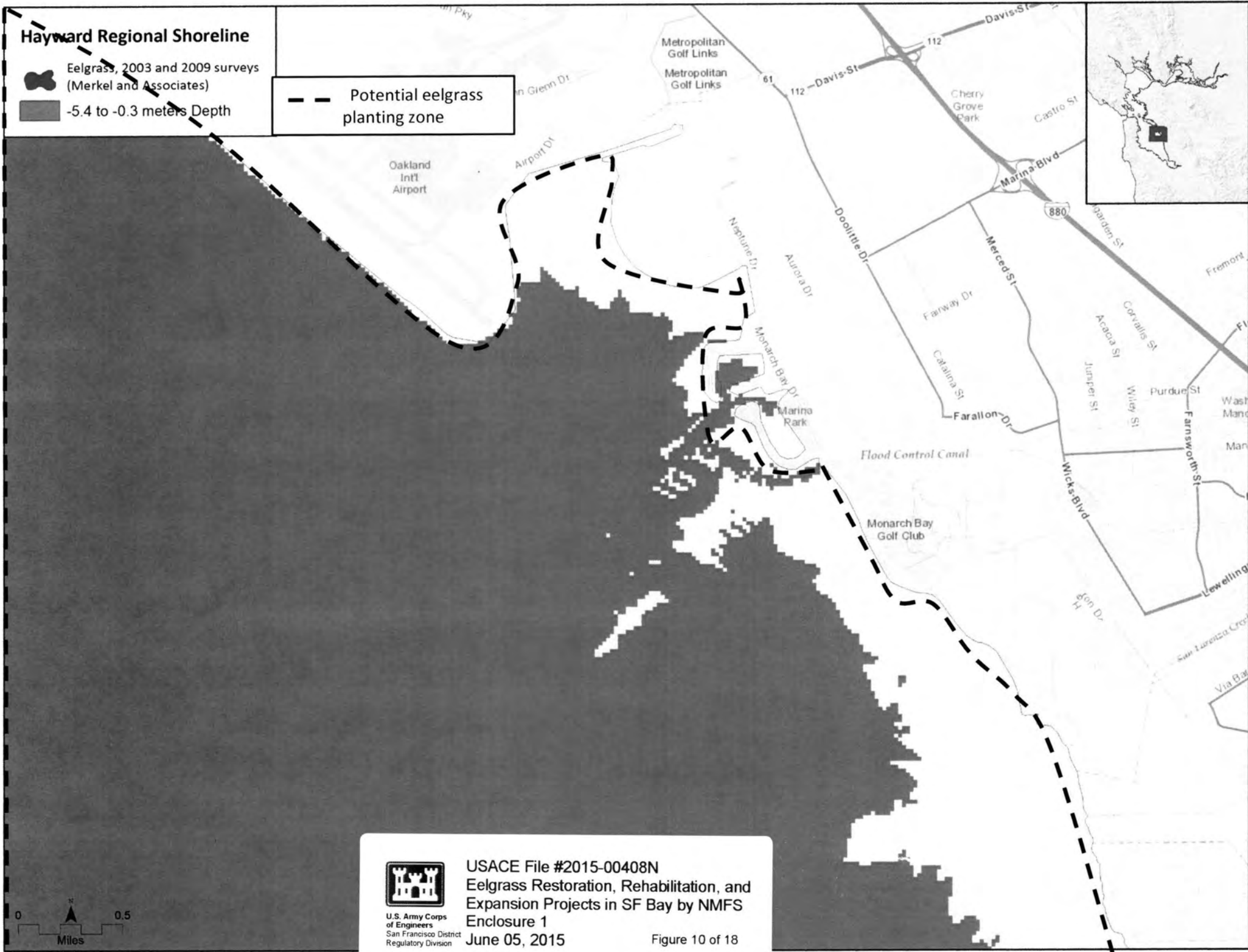
-  Eelgrass, 2003 and 2009 surveys (Merkel and Associates)
-  Potential eelgrass planting zone
-  -5.4 to -0.3 meters Depth




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Hayward Regional Shoreline

-  Eelgrass, 2003 and 2009 surveys (Merkel and Associates)
-  Potential eelgrass planting zone
-  -5.4 to -0.3 meters Depth

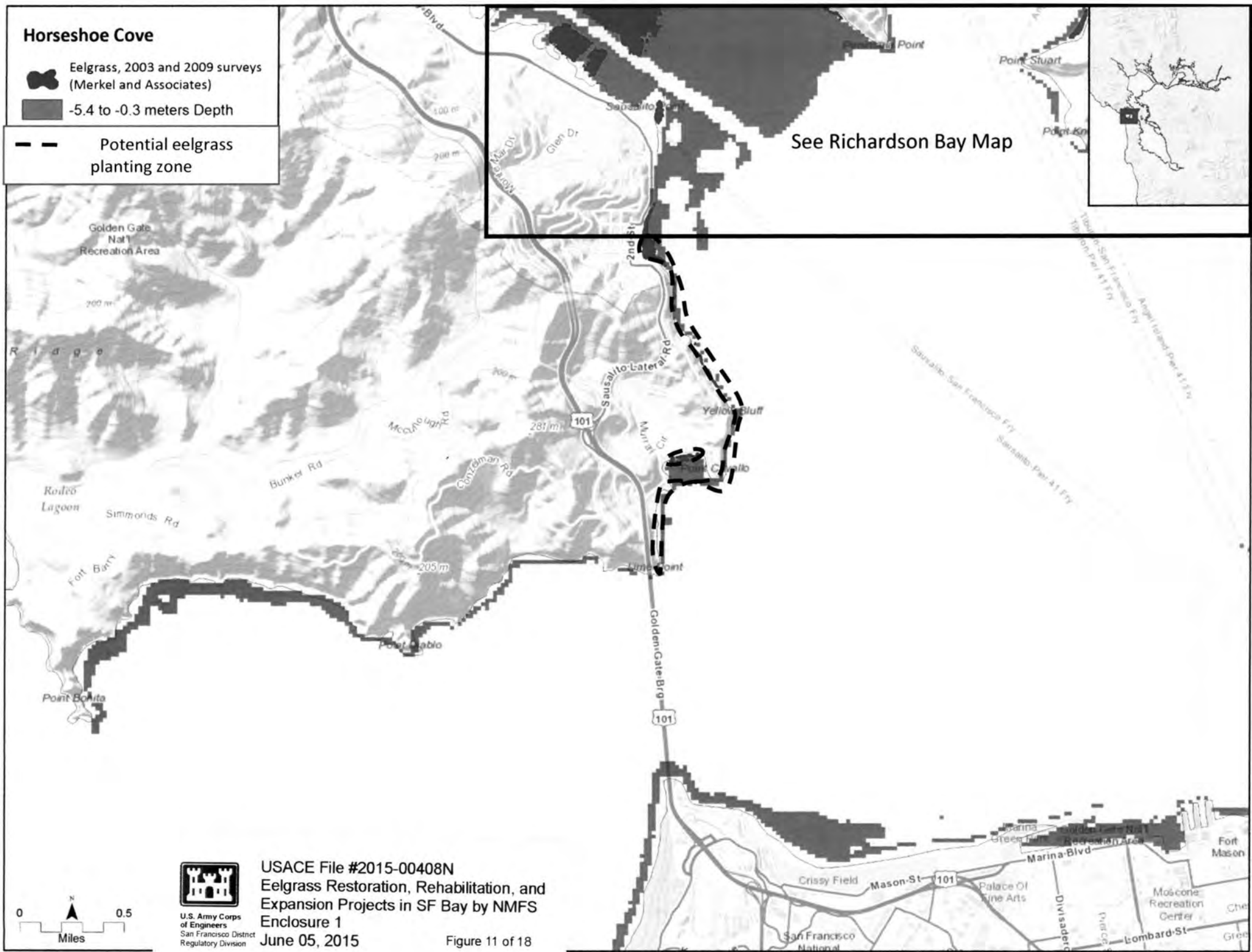


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Horseshoe Cove


- Eelgrass, 2003 and 2009 surveys (Merkel and Associates)
- 5.4 to -0.3 meters Depth
- Potential eelgrass planting zone

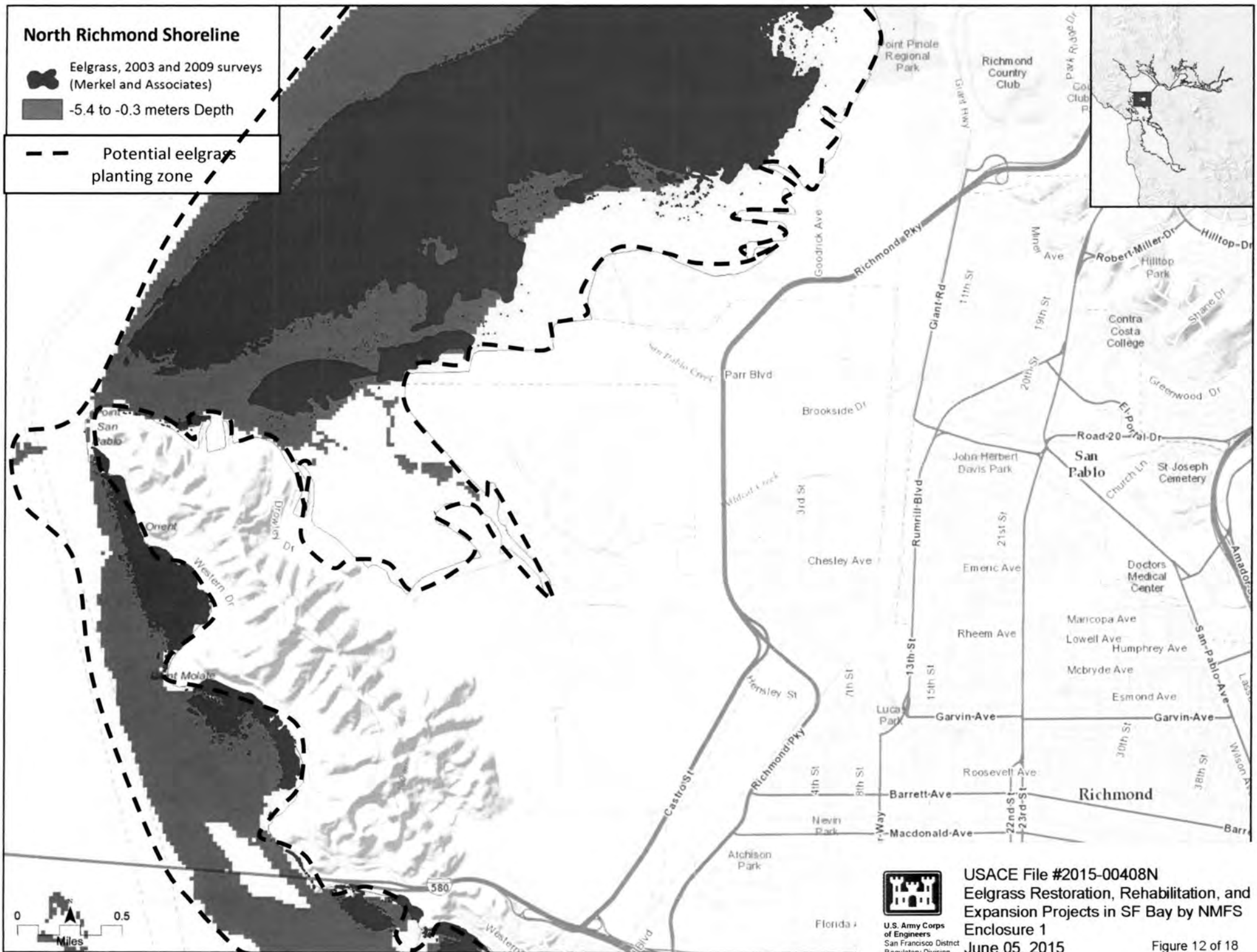


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North Richmond Shoreline

-  Eelgrass, 2003 and 2009 surveys (Merkel and Associates)
-  -5.4 to -0.3 meters Depth

-  Potential eelgrass planting zone



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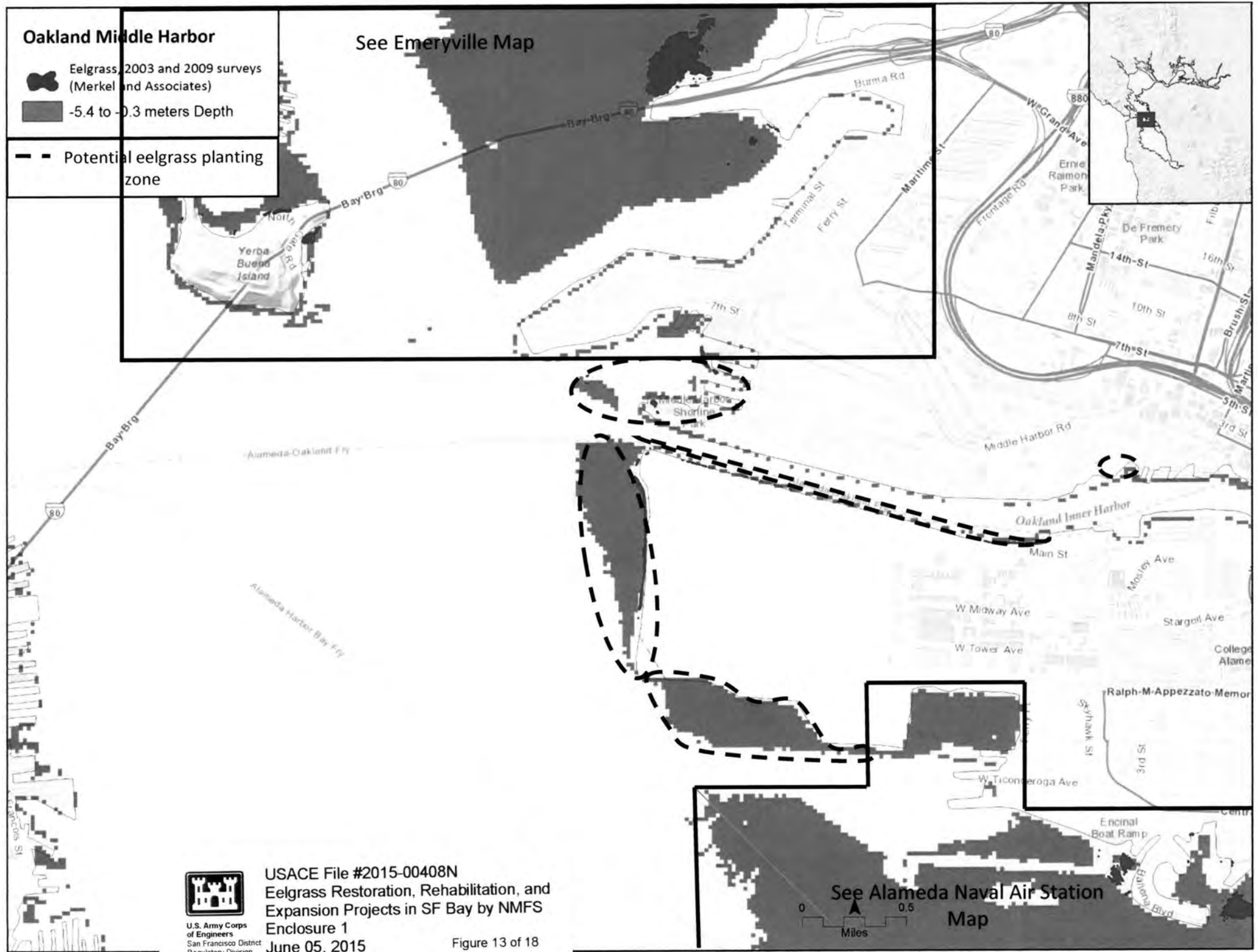
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Oakland Middle Harbor

- Eelgrass, 2003 and 2009 surveys (Merkel and Associates)
- 5.4 to -0.3 meters Depth

Potential eelgrass planting zone

See Emeryville Map



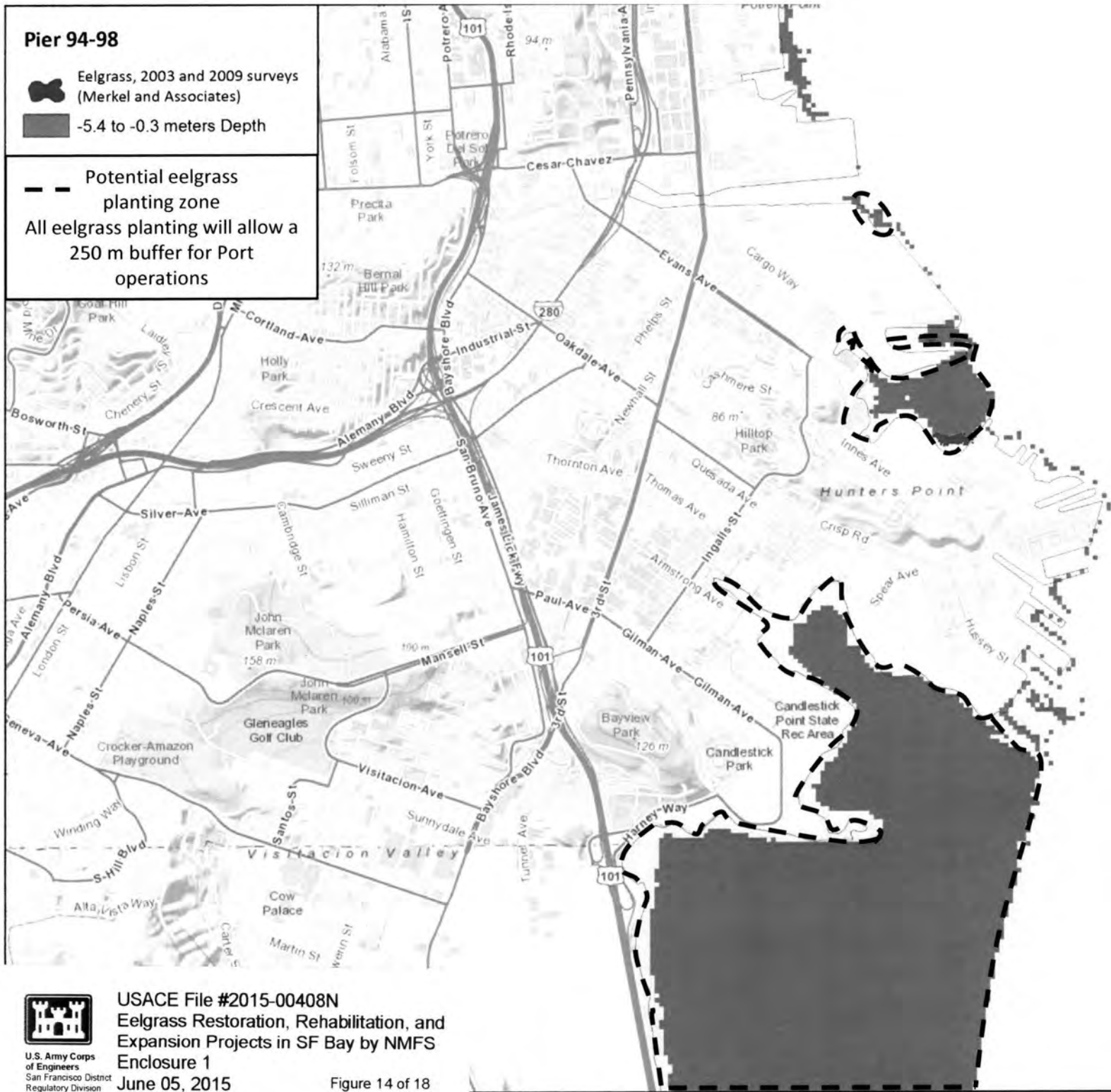
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See Alameda Naval Air Station
Map

Pier 94-98

- Eelgrass, 2003 and 2009 surveys (Merkel and Associates)
- 5.4 to -0.3 meters Depth

- Potential eelgrass planting zone
- All eelgrass planting will allow a 250 m buffer for Port operations



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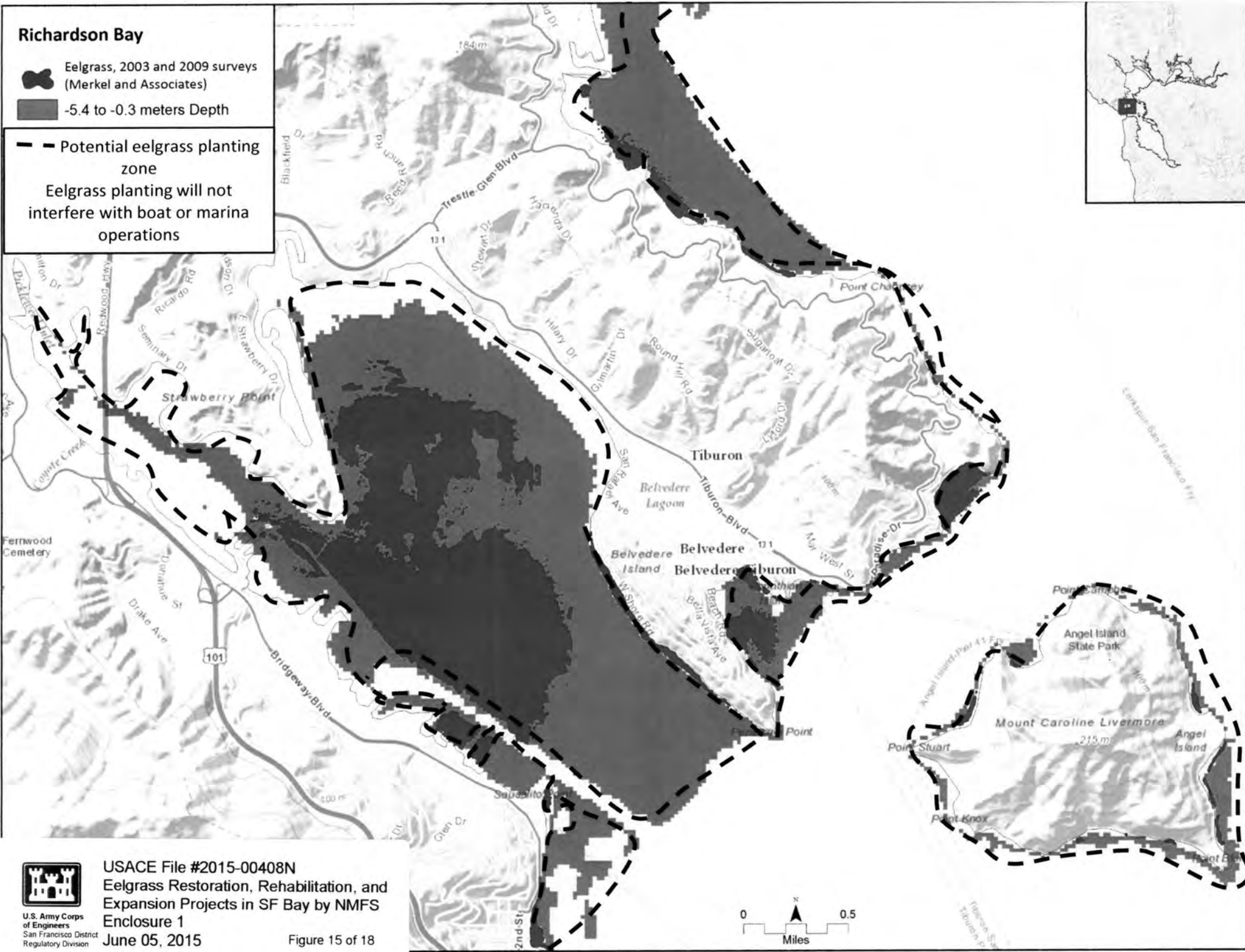


Richardson Bay

 Eelgrass, 2003 and 2009 surveys
(Merkel and Associates)

 -5.4 to -0.3 meters Depth

 Potential eelgrass planting zone
Eelgrass planting will not interfere with boat or marina operations



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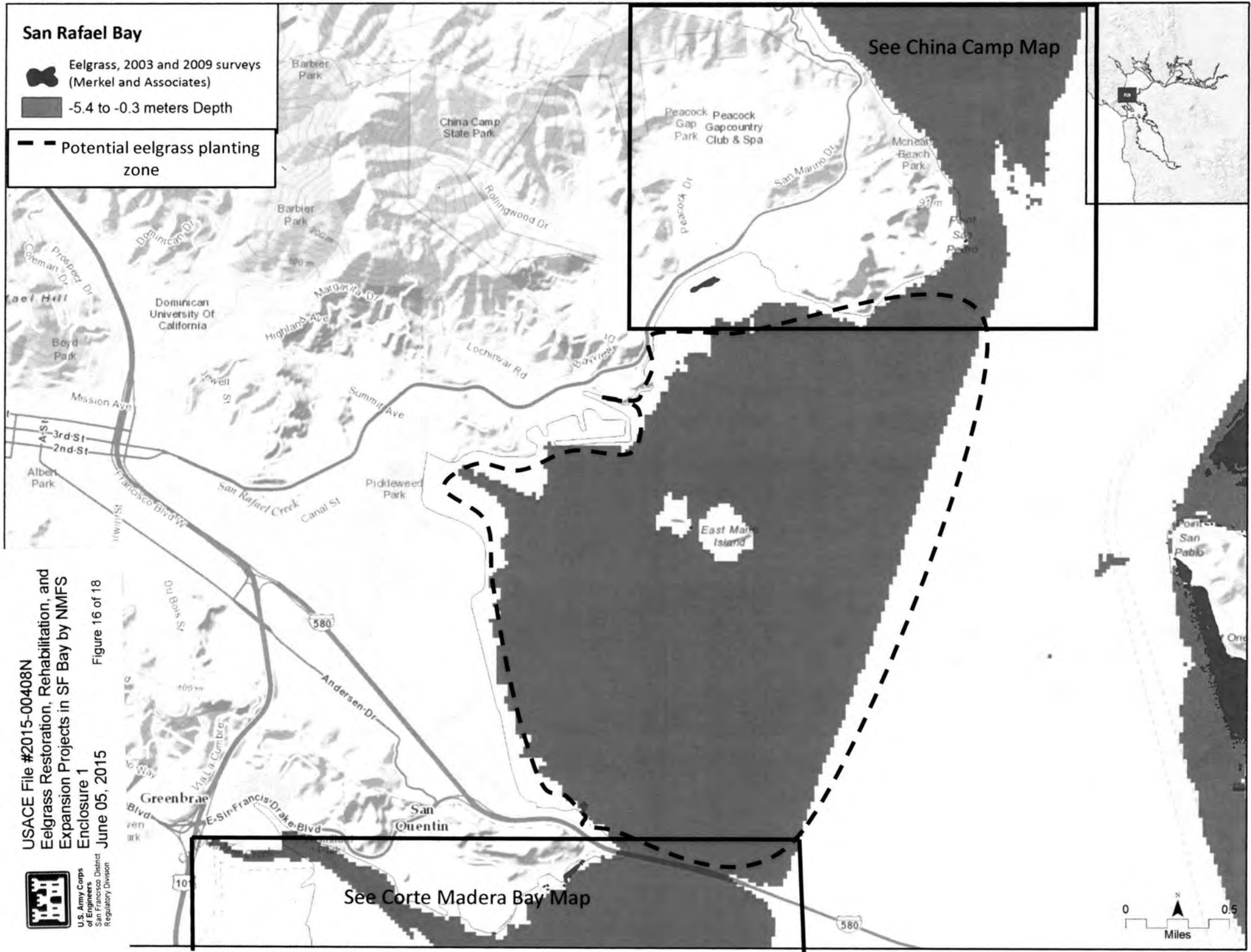
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San Rafael Bay

- Eelgrass, 2003 and 2009 surveys (Merkel and Associates)
- 5.4 to -0.3 meters Depth

Potential eelgrass planting zone



See China Camp Map

See Corte Madera Bay Map



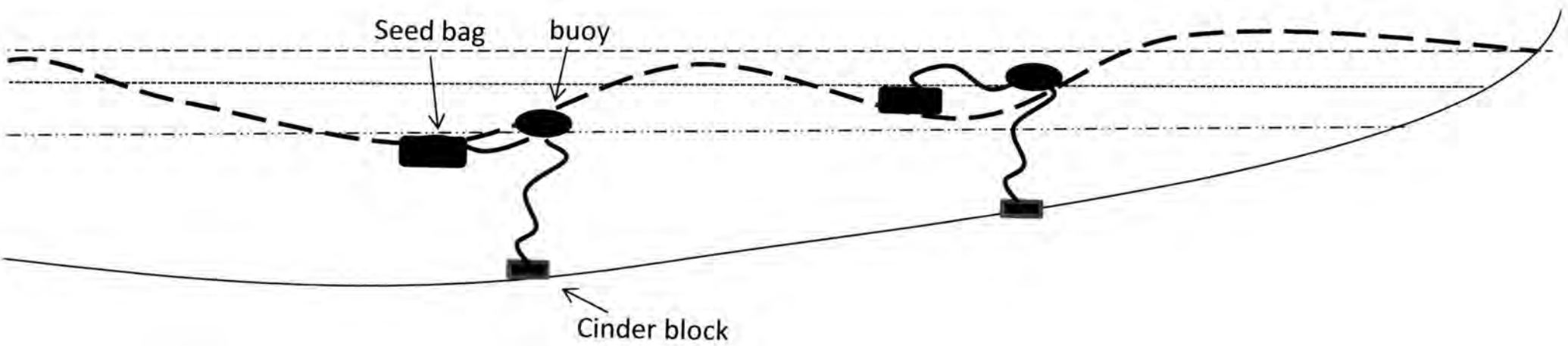
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Depth range of 0.3 - -5.4 m MLLW

HTL -----
MHHW - - - - -
MLLW - . - . - .
Water line - - - - -

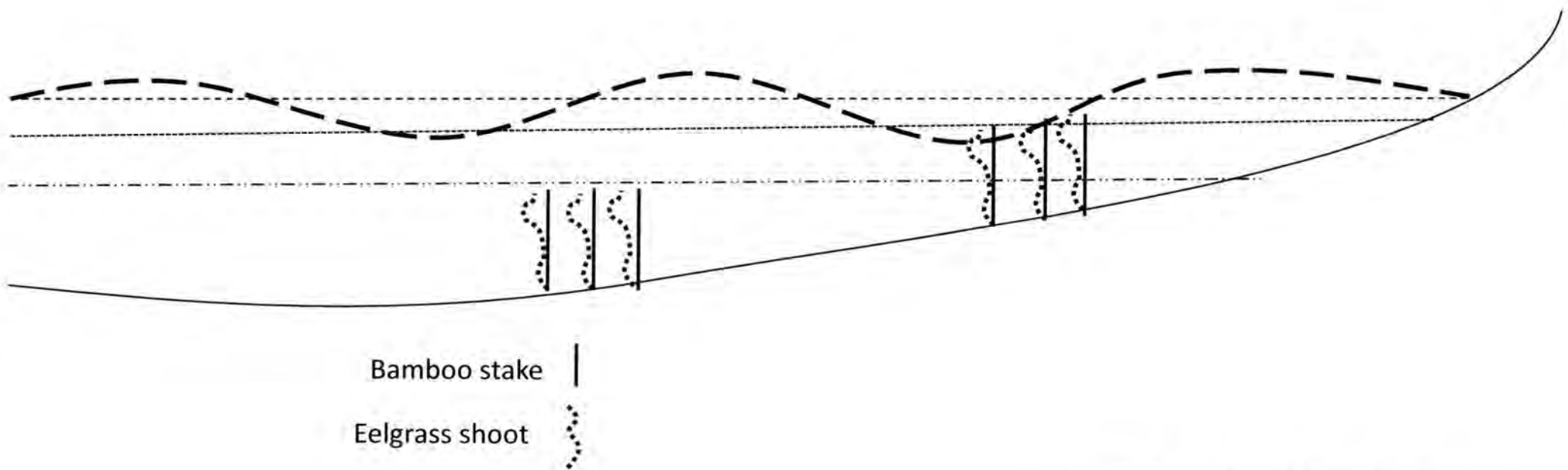


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Depth range of 0.3 - -5.4 m MLLW

HTL -----
MHHW -----
MLLW -.-.-.-
Water line - - - -



Bamboo stake |
Eelgrass shoot

