1403

WHEN RECORDED, MAIL TO:

CITY OF VALLEJO
City Clerk
555 Santa Clara Street
Vallejo, CA 94590

Exempt from Recording Fees
Pursuant to Government Code Section 6103

Recorded in Official Records, Solano County
Marc C. Tonnesen
Assessor/Recorder

P CITY OF VALLEJO

Doc#: 201100042113

5/13/2011
9:52 AM
AR16
5S

Titles: 2 Pages: 184

Fees	0.00
Taxes	0.00
Other	0.00
PAID	$0.00

CITY OF VALLEJO

ACCEPTANCE OF QUITCLAIM DEED AND ENVIRONMENTAL RESTRICTIONS FOR PARCELS II, X-B(1) AND X-B(2) FROM UNITED STATES OF AMERICA (U.S. DEPARTMENT OF NAVY) TO THE CITY OF VALLEJO, VALLEJO, CA

1403

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City Clerk
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5/13/2011 9:52 AM

CONFORMED COPY

CITY OF VALLEJO

ACCEPTANCE OF QUITCLAIM DEED AND ENVIRONMENTAL RESTRICTIONS FOR PARCELS II, X-B(1) AND X-B(2) FROM UNITED STATES OF AMERICA (U.S. DEPARTMENT OF NAVY) TO THE CITY OF VALLEJO, VALLEJO, CA

NAVY CONTRACT # N4769211RP11P51
Recorded at the Request of and
When Recorded Mail to:

City of Vallejo
555 Santa Clara Street
Vallejo, California 94590

QUITCLAIM DEED AND ENVIRONMENTAL

RESTRICTIONS PURSUANT TO CALIFORNIA CIVIL CODE SECTION 1471

FOR PARCELS II, X-B(1), and X-B(2)

This deed is made this 13th day of APRIL 2011, by and between the **UNITED STATES OF AMERICA**, hereinafter referred to as "**GRANTOR**", acting by and through the United States Department of the Navy ("Navy"), and the **CITY OF VALLEJO, CALIFORNIA,** hereinafter referred to as "**GRANTEE**".

RECITALS

WHEREAS:

A. The Secretary of the Navy may convey surplus property at a closing military installation to the Local Redevelopment Authority ("LRA") for economic development purposes pursuant to the power and authority provided by Section 2905 (b)(4) of the Defense Base Closure and Realignment Act of 1990 (P.L. 101-510) as amended, and the implementing regulations of the Department of Defense (32 CFR Parts 174 and 176); and

B. **GRANTEE** has been recognized by the Secretary of Defense as the LRA for the former Mare Island Naval Shipyard ("MINSY"), and by application dated January 23, 1996, requested an Economic Development Conveyance ("EDC") of portions of MINSY, consisting of approximately 1,412 acres located in the county of Solano, State of California, ("the EDC Property") for uses consistent with the July 26, 1994, Mare Island Final Reuse. **GRANTOR** and **GRANTEE** entered into a Memorandum of Agreement for the EDC of MINSY and Associated Properties within the City of Vallejo dated September 30, 1999; and

C. The City of Vallejo and the State of California, acting by and through the State Lands Commission, entered into the Mare Island Property Settlement and Exchange Agreement ("Settlement Agreement") recorded March 26, 2002 which settled a land and boundary dispute between them and resolved the status and disposition of certain lands in the City of Vallejo, County of Solano, State of California; and

D. The EDC Property includes three parcels of land identified as Parcel II, Parcel X-B(1) and Parcel X-B(2). All three parcels are hereinafter referred to jointly as the "Property", and are more particularly described in Exhibit "A", attached hereto and made a part hereof; and

E. Parcel II consists of approximately 60.7 acres of land located in the Northeastern portion of MINSY, a portion of which has been designated for conservation purposes as further described in Clause III. M hereto; and.

F. Parcel X-B(1) and Parcel X-B(2) consist of approximately 5.10 and 2.74 acres, respectively, of land located in the Southwestern portion of MINSY and correspond to Parcel Xa and the Northern portion of Parcel Xb in the Settlement Agreement, respectively. Parcel X-B(3), which corresponds to the Southern portion of Parcel Xb in the Settlement Agreement, will be transferred in a future disposal transaction and is not a part of this quitclaim deed; and

G. The **GRANTOR** has completed remedial actions on the Property to be conveyed to **GRANTEE** that are necessary to provide the covenant required by the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") 42 U.S.C. Section 9620 (h)(3)(A)(ii)(I); and

H. The **GRANTOR** has found and determined that the Property to be conveyed to **GRANTEE** is suitable for transfer pursuant to a Finding of Suitability for Transfer ("FOST") dated September 21, 2010, attached hereto and made a part hereof as Exhibit "B"; and

I. Pursuant to California Civil Code §1471, **GRANTOR** has determined that it is reasonably necessary to impose certain restrictions on the use of the Property being conveyed hereunder to protect present and future human health or safety or the environment as a result of the presence of hazardous materials on portions of the Property described hereinafter with particularity.

NOW THEREFORE, **GRANTOR**, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, does hereby remise, release and forever quitclaim to **GRANTEE**, all of **GRANTOR's** right, title and interest in and to the Property.

I. TOGETHER WITH:

A. All of **GRANTOR's** right, title, and interest in and to buildings, facilities, roadways, rail lines, and other infrastructure, including those Mare Island storm drainage systems, sewer systems, and the electrical, natural gas, telephone, and water utility distribution systems located thereon, and any other improvements on the Property; any appurtenances hereunto belonging; all hereditaments and tenements therein and reversions, remainders, issues, profits, privileges and other rights belonging or related thereto; and all rights to minerals, gas, oil, and water.

II. RESERVING UNTO THE GRANTOR:

A. **GRANTOR**, for itself and for its successors and assigns, hereby reserves a perpetual and assignable non-exclusive Easement for ingress and egress on, across, over or under existing roadways and utility lines, for the installation, operation, maintenance, and repair of utilities

located on the Property, or portions thereof, to or from the properties which remain in the control of the **GRANTOR** as of the effective date of this Deed ("the Remaining Lands").

B. To the extent the aforementioned existing roadways or utility lines are abandoned after the date of this conveyance or otherwise cease to provide access or utilities to the Remaining Lands, and said access or utilities continue to be required, said Easement shall be on, across, over or under such other improved or unimproved property provided by the **GRANTEE**, or its successor and assigns, at no cost to **GRANTOR**, as required to provide equivalent ingress and egress and utilities rights-of-way to the Remaining Lands. In the event **GRANTOR** determines that utilities or access to the Remaining Lands are no longer required by **GRANTOR**, or are otherwise available without exercise of the rights reserved hereunder, **GRANTOR** shall discharge and extinguish the applicable portion of this Easement through a quitclaim deed or such other appropriate instrument as may be reasonably requested in writing by the **GRANTEE**.

III. SUBJECT TO THE FOLLOWING NOTICES, COVENANTS, RESTRICTIONS, AND CONDITIONS, which shall be binding upon and enforceable against the **GRANTEE**, its successors and assigns, in perpetuity:

A. The **GRANTEE** agrees to accept conveyance of the Property subject to all covenants, conditions, restrictions, easements, rights-of-way, reservations, rights, agreements, and encumbrances of record.

B. The FOST found that all remedial action necessary to protect human health and the environment with respect to hazardous substances (as that clause is used in Section 120(h)(3)(A)(ii) and (B) of CERCLA have been completed with respect to the Property. **GRANTEE** acknowledges that it has received copies of the FOST; that it is aware of the notifications therein; and that all documents referenced therein have been made available to **GRANTEE** for inspection and copying.

C. Except as otherwise provided herein, or as otherwise provided by law, the **GRANTEE** acknowledges that it has inspected, is aware of, and accepts the condition and state of repair of the Property, and that the Property is conveyed "as is" and "where is" without any representation, promise, agreement, or warranty on the part of the **GRANTOR** regarding such condition and state of repair, or regarding the making of any alterations, improvements, repairs or additions. Except for any environmental remediation which may be required to be undertaken by **GRANTOR** pursuant to Clause III.F. below, the **GRANTEE** further acknowledges that the **GRANTOR** shall not be liable for any latent or patent defects in the Property except to the extent required by applicable law.

D. Asbestos Containing Material ("ACM").

1. The **GRANTEE**, is hereby informed and does hereby acknowledge that hazardous materials in the form of asbestos or ACM have been found and are otherwise presumed to exist in

buildings and structures on the Property. The FOST discloses the presence of known asbestos or ACM hazards in such buildings and structures on the Property.

2. The **GRANTEE** covenants, on behalf of itself, its successors and assigns, as a covenant running with the land, that in connection with its use and occupancy of the Property, **GRANTEE** will prohibit access, use or occupancy of the buildings and structures on the Property with asbestos or ACM hazards until the asbestos or ACM is abated or the structure is demolished. **GRANTEE** will comply with all applicable Federal, State and local laws relating to asbestos or ACM and assumes responsibility for the management of any asbestos or ACM. **GRANTEE** acknowledges that if asbestos or ACM is not managed in compliance with applicable Federal, State and local laws, it may become a hazard.

3. The **GRANTEE** acknowledges that the **GRANTOR** assumes no liability for damages for personal injury, illness, disability, or death to the **GRANTEE,** its successors, assignees, employees, invitees, or to any other person, including members of the general public, arising from or incident to the purchase, transportation, removal, handling, use, disposition, or other activity causing or leading to contact of any kind whatsoever with asbestos or ACM in the structures on the Property, whether the **GRANTEE**, its successors or assigns, has properly warned, or failed to properly warn the persons injured.

E. Lead Based Paint ("LBP").

1. The **GRANTEE** is hereby informed and does acknowledge that LBP may be present in nonresidential buildings, structures, or facilities within the Property conveyed based on the fact that the buildings, structures, or facilities were built prior to 1978. The **GRANTEE** is hereby informed and does acknowledge that through the action of normal weathering and maintenance, there may also be lead from LBP in the soil surrounding these structures. Lead from paint, paint chips, and dust can pose health hazards if not managed properly. The FOST discloses the presence of known LBP in such buildings and structures on the Property

2. The **GRANTEE** covenants and agrees as a covenant running with the land, that in connection with its use and occupancy of the Property, **GRANTEE** will prohibit reuse of the existing buildings and structures on the Property as residential or child occupied facilities and will comply with all applicable Federal, State and local laws relating to LBP. **GRANTEE** assumes responsibility for the management of any LBP and acknowledges that if LBP is not managed in compliance with applicable Federal, State and local laws, it may become a hazard.

3. The **GRANTEE** acknowledges that the **GRANTOR** assumes no liability for damages for personal injury, illness, disability, or death to the **GRANTEE,** its successors, assignees, employees, invitees, or to any other person, including members of the general public, arising from or incident to the purchase, transportation, removal, handling, use, disposition, or other activity causing or leading to contact of any kind whatsoever with LBP on the Property, whether the **GRANTEE**, its successors or assigns, has properly warned, or failed to properly warn the persons injured.

F. Property Covered by Notice, Description, Access Rights, and Covenants Made Pursuant to Section 120(h)(3)(A) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)): For the Property, the **GRANTOR** provides the following notice, description, and covenants and retains the following access rights:

1. **Notices Pursuant to Section 120(h)(3)(A)(i)(I) and (II) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(i)(I) and (II)):** Pursuant to section 120(h)(3)(A)(i)(I) and (II) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(i)(I) and (II)), available information regarding the type, quantity, and location of hazardous substances and the time at which such substances were stored, released, or disposed of, as defined in section 120(h), is provided in Exhibit "C " attached hereto and made a part hereof.

2. **Description of Remedial Action Taken, if Any, Pursuant to Section 120(h)(3)(A)(i)(III) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(i)(III):** Pursuant to section 120(h)(3)(A)(i)(III) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(i)(III), a description of the remedial action taken, if any, on the Property is provided in Exhibit " B " attached hereto and made a part hereof.

3. **Covenant Pursuant to Section 120(h)(3)(A)(ii) and (B) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(ii) and (B)):** Pursuant to sections 120(h)(3)(A)(ii) and (B) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(ii) and (B)), the United States warrants that:

(a) all remedial action necessary to protect human health and the environment with respect to any hazardous substance identified pursuant to section 120(h)(3)(A)(i)(I) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 remaining on the Property has been taken before the date of this deed, and

(b) any additional remedial action found to be necessary after the date of this deed shall be conducted by the United States.

4. **Access Rights Pursuant to Section 120(h)(3)(A)(iii) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(iii)):** The United States retains and reserves a perpetual and assignable easement and right of access on, over, and through the Property, to enter upon the Property in any case in which a remedial action or corrective action is found to be necessary on the part of the United States, without regard to whether such remedial action or corrective action is on the Property or on adjoining or nearby lands. Such easement and right of access includes, without limitation, the right to perform any environmental investigation, survey, monitoring, sampling,

testing, drilling, boring, coring, test-pitting, installing monitoring or pumping wells or other treatment facilities, response action, corrective action, or any other action necessary for the United States to meet its responsibilities under applicable laws and as provided for in this instrument. Such easement and right of access shall be binding on the **GRANTEE** and its successors and assigns and shall run with the land.

In exercising such easement and right of access, the United States shall provide the **GRANTEE** or its successors or assigns, as the case may be, with reasonable notice of its intent to enter upon the property and exercise its rights under this clause, which notice may be severely curtailed or even eliminated in emergency situations. The United States shall use reasonable means to avoid and to minimize interference with the grantee's and the grantee's successors' and assigns' quiet enjoyment of the property. At the completion of work, the work site shall be reasonably restored. Such easement and right of access includes the right to obtain and use utility services, including water, gas, electricity, sewer, and communications services available on the property at a reasonable charge to the United States. Excluding the reasonable charges for such utility services, no fee, charge, or compensation will be due the **GRANTEE**, nor its successors and assigns, for the exercise of the easement and right of access hereby retained and reserved by the United States.

In exercising such easement and right of access, neither the **GRANTEE** nor its successors and assigns, as the case may be, shall have any claim at law or equity against the United States or any officer or employee of the United States based on actions taken by the United States or its officers, employees, agents, contractors of any tier, or servants pursuant to and in accordance with this clause: Provided, however, that nothing in this paragraph shall be considered as a waiver by the **GRANTEE** and its successors and assigns of any remedy available to them under the Federal Tort Claims Act.

G. Access by State of California.

Pursuant to California Civil code §1471, **GRANTEE** agrees on behalf of itself, and its successors and assigns, as a covenant running with the land, that the California Environmental Protection Agency Department of Toxic Substances Control (DTSC) and the California Regional Water Quality Control Board (RWQCB), their officers, agents, employees, contractors and subcontractors, shall have the right to enter upon the Property to perform any environmental investigation, survey, monitoring, sampling, testing, drilling, boring, coring, test-pitting, installing monitoring or pumping wells or other treatment or containment facilities if corrective or remedial action is found to be necessary after the date of transfer and that **GRANTEE** shall allow the DTSC and the RWQCB, their officers, agents, employees, contractors and subcontractors, to enter upon the Property for such purposes following reasonable notice. **GRANTEE** shall allow such entry by the DTSC and the RWQCB, their officers, agents, employees, contractors and subcontractors, on the condition that the DTSC and the RWQCB, their officers, agents, employees, contractors and subcontractors, uses reasonable means to avoid and to minimize interference with the **GRANTEE's** and the

GRANTEE's successors' and assigns' quiet enjoyment of the Property and so as not to unreasonably interfere with **GRANTEE's** and the **GRANTEE's** successors' and assigns' operations on or other uses of the Property, and agree to reasonably restore the work site upon completion of the work. The land to be affected by said covenants shall be the Property or any portion thereof. **GRANTEE** and all successive owners of the Property or any portion thereof, and their assigns, are hereby bound by such covenants for the benefit of the State of California as the covenantees.

H. Floodplain Notification.

To the extent that any portion of the Property lies within a floodplain as defined in Section 6(c) of Executive Order No. 11988, "Floodplain Management", dated May 24, 1977, **GRANTEE** is hereby notified that use of such portion of the Property could be limited by the eligibility standards and criteria of the National Flood Insurance Program of the Federal Emergency Management Agency and the City of Vallejo's Flood Protection Ordinance, or other applicable regulations, to the extent that such regulations legally apply to the use of sovereign tide and submerged lands such as the Property.

I. Wetlands Notification.

Wetlands are present on the Property and in accordance with Section 4 of Executive Order 11990, "Protection of Wetlands", dated May 24, 1977, **GRANTEE** is hereby notified that dredge and fill activities in wetlands are regulated by the United States Army Corps of Engineers pursuant to the Federal Water Pollution Control Act, 33 U.S.C. section 1344 et seq. and its implementing regulations.

J. Equal Opportunity.

GRANTEE covenants not to discriminate upon the basis of race, color, religion, disability, sex, age or national origin in the use, occupancy, sale, or lease of the Property, or in its employment practices conducted thereon, as required by applicable Federal and State law. **GRANTOR** shall be deemed a beneficiary of this covenant without regard to whether it remains the owner of any land or interest therein in the locality of the Property hereby conveyed and shall have the right to enforce this covenant in any court of competent jurisdiction.

K. Notification of Pesticide Use.

The Property may contain pesticide residue from pesticides that have been applied in the management of the Property. The **GRANTOR** knows of no use of any pesticide in a manner inconsistent with its labeling and believes that all applications were registered, produced, handled, and applied in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA - 7 U.S.C. Sec. 136, et seq.), its implementing regulations, and according to the labeling provided with such substances. It is the **GRANTOR'S** position that it shall have no obligation

under the covenants provided pursuant to section 120(h)(3)(A)(ii) of CERCLA, 42 U.S.C. Sections 96720(h)(3)(A)(ii), or otherwise, for the remediation of legally applied pesticides. Nothing herein shall be deemed an acknowledgement or agreement by **GRANTEE** to **GRANTOR'S** position regarding such legally applied pesticides.

L. Section 330.

Section 330 of Public Law 102-484, as amended by section 1002 of Public Law 103-160, applies to the Property. Nothing in this deed either adds to or detracts from the rights and responsibilities of the **GRANTOR** and the **GRANTEE**, its successors or assigns, relating to Section 330, as amended. This paragraph is not subject to Article 23, Disputes, of the Memorandum of Agreement by and between the United States of America and the City of Vallejo for the Sale of the Former Mare Island Naval Shipyard, dated September 30, 1999.

M. Conservation Area.

1. Approximately 21.75 acres of land on the Eastern portion of Parcel II abutting the Mare Island Strait (the "Conservation Area", See Exhibit "D ") have been determined by the United States Fish and Wildlife Service ("USFWS") to possess wildlife and habitat values wherein species listed as endangered or threatened by USFWS and/or the National Marine Fisheries Service pursuant to the Endangered Species Act of 1973, as amended, 16 U.S.C. sections 1531 et seq. and its implementing regulations ("ESA") may be present. In connection with the Endangered Species Formal Consultation on the Proposed MINSY Disposal and Reuse dated May 23, 1997, USFWS issued a Biological Opinion (the "Biological Opinion", attached as Exhibit "E" hereto) directing the Navy to dedicate the Conservation Area and certain other areas of the former MINSY for the long-term preservation, management and protection of endangered species and their habitat.

2. **GRANTEE** covenants to designate and conserve the Conservation Area in perpetuity solely for conservation purposes in accordance with the terms of this deed and the Biological Opinion. **GRANTEE** covenants that it will not use, nor will it authorize others to use, the Conservation Area for any purpose other than wildlife and habitat conservation, and, subject to funding availability, that it will undertake reasonable measures to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Conservation Area. To those ends, and for the avoidance of doubt, the following non-exclusive list of activities are expressly prohibited within the Conservation Area, except as otherwise authorized herein:

(a) Residential, commercial, industrial, mining (including from the subsurface), or agricultural developments and activities;

(b) Grading, construction, creation, installation, placement or erection of any other structure of any kind, including signs, billboards, or new roadways or trails;

(c) Watering; use of fertilizers, pesticides, biocides, herbicides or other agricultural chemicals; weed abatement activities; removing, destroying, or cutting of trees, shrubs or other vegetation; as to each, except as is necessary to maintain existing foot trails or roadways and/or for fire protection purposes as required by law or at the direction of the relevant fire protection authority.

(d) Use of off-road vehicles or any other motorized vehicles except on any existing roadways;

(e) Recreational activities including, but not limited to, horseback riding, biking, hunting or fishing;

(f) Any legal or de facto division, subdivision or partitioning of the Conservation Area;

(g) Depositing or allowing the accumulation of soil, fill material, trash, ashes, refuse, waste, bio-solids or any other materials;

(h) Planting, introducing, or dispersing non-native or exotic plant or animal species; and

(i) Manipulating, impounding or altering any natural water course, body of water or water circulation in the Conservation Area, and activities or uses detrimental to water quality, including but not limited to, degradation or pollution of any surface or sub-surface waters.

3. Exceptions to Conservation Restrictions: Notwithstanding the above, minor construction or structures which are absolutely necessary in order to carry out or facilitate the use or preservation of the Conservation Area for conservation purposes (e.g., installation or maintenance of fences or signs identifying the Conservation Area) or in order to eliminate a hazard to human health or the environment are permitted within the Conservation Area.

4. The California Department of Fish & Game ("CDFG") is vested with the authority to protect California listed endangered, threatened, fully protected species under the California Endangered Species Act, California Fish & Game Code § 2050 *et seq.* and related State laws and implementing regulations.

5. USFWS is vested with the authority to protect Federally listed endangered or threatened species under the ESA and related Federal laws and implementing regulations.

6. **GRANTEE** is hereby notified that both CDFG and USFWS in the normal exercise of their jurisdiction over the Conservation Area, retain the authority to enforce the conservation restrictions described herein, including the right to engage in consultation with the **GRANTEE** and/or issue new biological opinions governing the Conservation Area should they determine that area is being used inconsistently with the Biological Opinion or the provisions herein.

7. Should the **GRANTEE** ever divest itself of any interest in all or any portion of the Conservation area, including without limitation, a leasehold interest, then, subject to funding availability, the **GRANTEE**, in its continuing capacity as the City with jurisdiction and police power over the Conservation Area, shall make all reasonable efforts within its authority to enforce the provisions contained herein relating to the Conservation Area.

8. The restrictions and covenants applicable to the Conservation Area shall run with the Property and shall be enforceable against all future owners and tenants in perpetuity. **GRANTEE** agrees to incorporate the terms and conditions herein pertaining to the Conservation Area by reference in any deed or other legal instrument by which **GRANTEE** divests itself of any interest in all or any portion of the Conservation Area, including without limitation, a leasehold interest. **GRANTEE** further agrees to give written notice to CDFG and USFWS at least thirty (30) days prior to the date of any such transfer at the addresses provided in the following subsection.

9. This Clause III. M. may be amended only by mutual written agreement of the **GRANTOR**, **GRANTEE**, USFWS and CDFG. Any such amendment shall be recorded in the official records of the county in which the Conservation Area is located, and **GRANTEE** shall promptly provide a conformed copy of the recorded amendment to **GRANTOR,** and to USFWS and CDFG at the addresses provided below:

Department of Fish and Game
Office of the General Counsel
1416 Ninth Street, 12th Floor
Sacramento, California 95814-2090
Attn: General Counsel

United States Fish and Wildlife Service
2800 Cottage Way, W-2605
Sacramento, CA 95826-1846
Attn: Field Supervisor

N. Explosive Safety Arc Notification.

For the avoidance of doubt, the right of access in Clause III. F. 4. to conduct any necessary CERCLA response actions shall include the right to require, upon reasonable notice to **GRANTEE**, the evacuation of the Property in the event that a CERCLA response action by **GRANTOR** requires an explosive safety distance arc or other measures that might extend on to or over the Parcels X-B(1) or X-B(2).

IV. THE CONDITIONS, RESTRICTIONS, RESERVATIONS, AND COVENANTS set forth herein are a binding servitude on the Property, shall inure to the benefit of **GRANTOR** and **GRANTEE** and their respective successors and assigns, and will be deemed to run with the land in perpetuity, pursuant to California Civil Code sections 1462 and 1471 and other applicable authority.

V. NOTICES: Notices shall be deemed sufficient under this deed if made in writing and submitted to the following addresses (or to any new or substitute address hereinafter specified, in a writing theretofore delivered in accordance with the notice procedure set forth herein by the intended recipient of such notice):

If to the **GRANTEE**: City of Vallejo,
555 Santa Clara Street
Vallejo, California 94590
Attn: City Attorney

If to the **GRANTOR**: Department of the Navy
BRAC Program Management Office, West
1455 Frazee Road – Suite 900
San Diego, CA 92108-4310

Exhibits: This deed contains the following Exhibits:

A. Legal Description of the Property
B. Finding of Suitability for Transfer (FOST) dated September 21, 2010
C. Hazardous substances Notification Table
D. Legal Description of the Conservation Area within Parcel II
E. Biological Opinion

[SIGNATURE PAGES FOLLOW]

MARE ISLAND NAVAL SHIPYARD QUITCLAIM DEED
PARCELS II, X-B(1), and X-B(2)
N4769211RP11P51

IN WITNESS WHEREOF, GRANTOR has caused this Quitclaim Deed to be executed in its name and on its behalf by its officer thereunto duly authorized as of the date made as above written.

THE UNITED STATES OF AMERICA,
Acting by and through the
Department of the Navy

By:_____
WILLIAM R. CARSILLO
Real Estate Contracting Officer
Base Realignment & Closure Office

STATE OF CALIFORNIA
COUNTY OF San Francisco

On 4/13, 2011 before me, Thom O'Brien, Notary Public, Notary Public, personally appeared William R. Carsillo, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature:_____ (seal)

PC01 THOM O'BRIEN COMM. #1782116 NOTARY PUBLIC-CALIFORNIA SAN FRANCISCO COUNTY My Comm. Expires Dec. 25, 2011 PC01

MARE ISLAND NAVAL SHIPYARD QUITCLAIM DEED
PARCELS II, X-B(1), and X-B(2)
N4769211RP11P51

ACCEPTANCE:

The **GRANTEE** hereby accepts this Quitclaim Deed.

CITY OF VALLEJO, CALIFORNIA

By: Phil Batchelor

Name: Phil Batchelor

its: City Manager

Date: April 26, 2011

STATE OF CALIFORNIA
COUNTY OF Solano

On April 26, 2011 before me, Sheri M Kelly, City Clerk, ~~Notary Public~~, personally appeared Phil Batchelor, who proved to me on the basis of satisfactory evidence to be the person~~(s)~~ whose name~~(s)~~ is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity~~(ies)~~, and that by his/~~her/their~~ signature~~(s)~~ on the instrument the person~~(s)~~, or the entity upon behalf of which the person~~(s)~~ acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: Sheri M Kelly (seal)

City Clerk
City of Vallejo

CALIFORNIA ALL-PURPOSE ACKNOWLEDGEMENT

State of California)
) ss
County of Solano)

On April 26, 2011 before me, Sherry M. Kelly, City Clerk, City of Vallejo, personally appeared Phil Batchelor, City Manager, City of Vallejo, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS by hand and official seal.

Signature _____

Sherry M. Kelly, City Clerk
City of Vallejo

EXHIBIT "A"

LEGAL DESCRIPTIONS OF PARCELS II, SB-1 & XB-2

LEGAL DESCRIPTION
FOR
PARCEL II
MARE ISLAND, VALLEJO, CALIFORNIA

A tract of land being a portion of the Former Mare Island Shipyard lying in the City of Vallejo, Solano County, State of California being described as follows:

BEGINNING at the northeasterly corner of EDC Parcel II as shown on the Record of Survey Map filed in Book 24, Surveys, Page 74, Official Records of Solano County, and corrected by a certificate of Correction filed 3/12/2002 at Series Number 2002-31491, Solano County, State of California, and this tract of land is more particularly described as follows:

1. thence along the northeasterly boundary line of said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S11°02'09"W, 164.65 feet;

2. thence continuing along the northeasterly boundary line of said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S30°17'51"E, 3473.13 feet to the southeasterly corner of said EDC Parcel II;

3. thence S30°17'51"E, 3.65 feet to the northerly boundary line of the Eastern Early Transfer EDC Parcel as described in Quitclaim Deed from the United States of America to the City of Vallejo having Deed Document number 2002-00037960 as filed in the Official Records of Solano County on March 26, 2002;

4. thence along said northeasterly of said Eastern Early Transfer EDC Parcel, S62°23'04"W, 251.45 feet to the point of intersection of the easterly boundary line of the Joy Survey Line as shown on Record of Survey Map filed in Book 24, Surveys, Page 74 in the Official Records of Solano County on August 23, 2001, and said the point of intersection of the easterly boundary line of the Joy Survey Line and the southeasterly corner of Parcel One as described in EDC Parcel XXI-A as described in Quitclaim Deed from the United States of America to the City of Vallejo having Deed Document number 2002-00126209 as filed in the Official Records of Solano County on October 4, 2002;

5. thence leaving said northeasterly boundary of said Eastern Early Transfer EDC Parcel and along easterly boundary line of the Joy Survey and along the easterly boundary of said EDC Parcel XXI-A, N30°32'02"W, 71.82 feet;

6. thence along easterly boundary line of the Joy Survey and along the easterly boundary of said Parcel One of EDC Parcel XXI-A, N26°16'32"W, 1.27 feet to the most northeasterly corner of said Parcel One of EDC Parcel XXI-A;

LEGAL DESCRIPTION
FOR
PARCEL II
MARE ISLAND, VALLEJO, CALIFORNIA
(Continued)

7. thence leaving said easterly boundary line of the Joy Survey and along the northerly boundary of said Parcel One of EDC Parcel XXI-A, S62°21'41"W, 101.99 feet;

8. thence along the northerly boundary of said Parcel One of EDC Parcel XXI-A, N28°23'29"W, 65.00 feet;

9. thence continuing along the northerly boundary of said Parcel One of EDC Parcel XXI-A, S62°21'41"W, 100.00 feet;

10. thence continuing along said northerly boundary of said Parcel One of EDC Parcel XXI-A, S27°58'28"E, 65.00 feet;

11. thence along continuing the northerly boundary of said Parcel One of EDC Parcel XXI-A, S62°21'41"W, 35.00 feet to the most northwesterly corner of said Parcel One of EDC Parcel XXI-A;

12. thence along southwesterly boundary of said Parcel One of EDC Parcel XXI-A, S27°58'28"E, 22.85 feet to the northerly boundary of said EDC Parcel II and said Eastern Early Transfer EDC Parcel;

13. thence along the northerly boundary line of said EDC Parcel II and said Eastern Early Transfer EDC Parcel, S61°52'06"W, 167.81 feet;

14. thence continuing along the northerly boundary line of said EDC Parcel II and said Eastern Early Transfer EDC Parcel, S59°24'29"W, 99.79 feet;

15. thence continuing along the northerly boundary line of said EDC Parcel II and said Eastern Early Transfer EDC Parcel, S60°35'56"W, 85.74 feet;

16. thence continuing along the northerly boundary line of said EDC Parcel II and said Eastern Early Transfer EDC Parcel, S56°30'44"W, 106.18 feet to the southwesterly boundary line of said EDC Parcel II;

17. thence, along the said westerly boundary line of said EDC Parcel II, N34°50'50"W, 1808.78 feet;

18. thence, continuing along the said westerly boundary line of said EDC Parcel II, N59°09'34"E, 590.06 feet;

LEGAL DESCRIPTION
FOR
PARCEL II
MARE ISLAND, VALLEJO, CALIFORNIA
(Continued)

19. thence, continuing along the said westerly boundary line of said EDC Parcel II, N26°55'36"W, 1766.37 feet;

20. thence, along the northerly boundary line of said EDC Parcel II, N64°52'15"E, 509.14 feet to the point of **BEGINNING**;

The bearings and distances as mentioned in this legal description are based on the California State Coordinate System, Zone II, (NAD 1983).

All distances are ground, and to obtain grid distances multiply ground distance by 1.000062043

Excepting therefrom: any tidelands and submerged lands contained within the boundaries of this legal description.

END OF DESCRIPTION

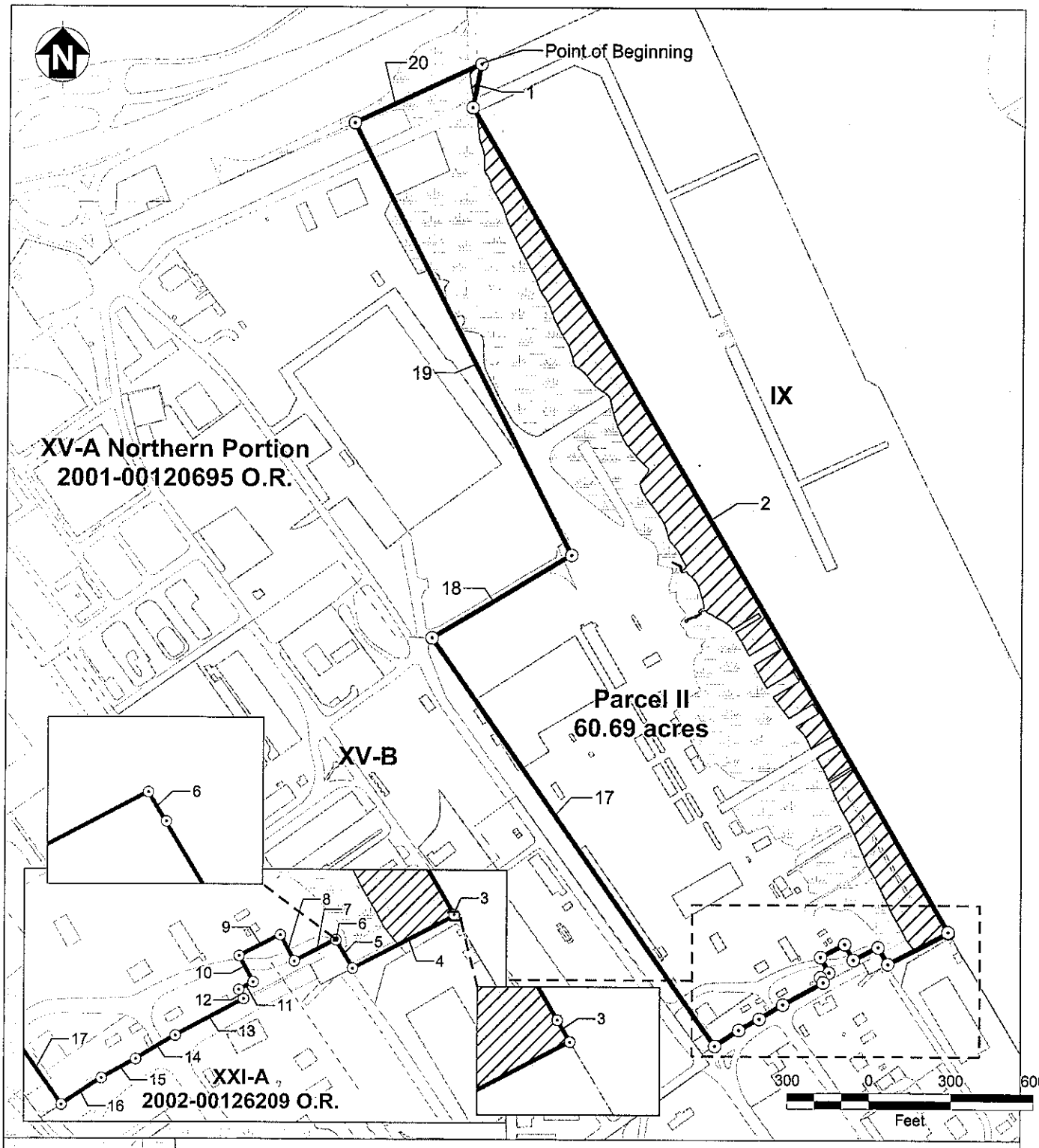
Said Parcel II contains 60.69 acres, more or less.

ALL AS SHOWN ON "PLAT TO ACCOMPANY LEGAL DESCRIPTION FOR PARCEL II MARE ISLAND, VALLEJO CALIFORNIA " ATTACHED HERETO AND MADE APART HEREOF.

PREPARED BY:

Michael S. Mahoney
Michael S. Mahoney, P.L.S.
1/29/2010
Rev. 3/12/2010

REVIEWED & ACCEPTED
THP CADASTRAL
DATE 5/12/10



ANGLE POINT

BOUNDARY PER LEGAL DESCRIPTION

PARCEL BOUNDARIES

EXCEPTED TIDELANDS AND SUBMERGED LANDS

Reviewed by Mike Mahoney, L.S.

ChaduxTt JV

Consulting Engineers and Scientists

PLAT TO ACCOMPANY LEGAL DESCRIPTION FOR PARCEL II MARE ISLAND, VALLEJO, CALIFORNIA

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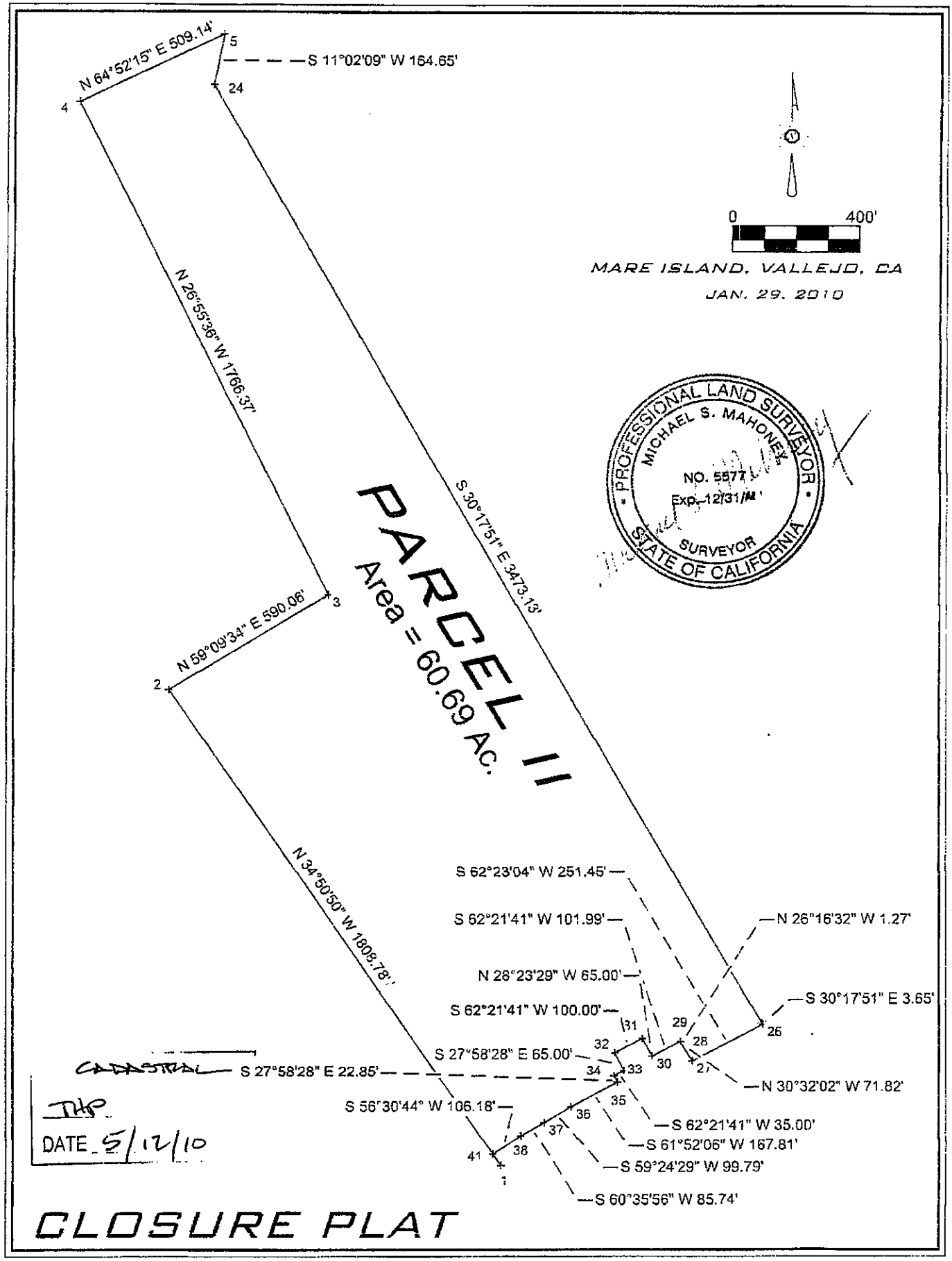
Attachment A

Closure Plat and Calculation



THP

DATE 5/12/10

CLOSURE PLAT

E:\PARCEL-II-MI.TRV
[[Traverse:BDY PAR. II RES-2 2643786.34SqFt 60.693Acres]]

Point	Type	Horiz Angle	Bearing	Horiz Dist	Northing	Easting	Description
1					1801527.955	6481191.253	SELY COR PAR. II 24RS74
			N34°50'50"W	1852.730			
2					1803048.450	6480132.621	ANGLE PT. SLY BDY PAR. II 24RS74
		274°00'24"	N59°09'34"E	590.060			
3					1803350.945	6480639.245	ANGLE PT. SLY BDY 24RS74
		93°54'50"	N26°55'36"W	1766.370			
4					1804925.817	6479839.345	SWLY COR PAR. II 24RS74
		271°47'51"	N64°52'15"E	509.140			
5					1805142.029	6480300.296	NELY COR PAR.II 24RS74
		306°09'54"	S11°02'09"W	164.650			
24					1804980.424	6480268.778	ANGLE PT.-NELY BDY PAR.II 24RS74
		138°40'00"	S30°17'51"E	3473.130			
25					1801981.662	6482020.937	NELY BDY PAR. II 24RS74
		180°00'00"	S30°17'51"E	3.650			
26					1801978.511	6482022.779	NLY BDY EETP 2002-0037960
		272°40'55"	S62°23'04"W	251.450			
27					1801861.954	6481799.975	NLY BDY EETP 2002-0037960@JOY SURVEY LINE&SELY COR PAR. ONE (XXI-A)
		267°04'54"	N30°32'02"W	71.820			
28					1801923.815	6481763.487	JOY SURVEY LINE & NELY BDY PAR ONE (XX1-A)
		184°15'30"	N26°16'32"W	1.270			
29					1801924.954	6481762.924	JOY SURVEY LINE & NELY COR. PAR ONE (XX1-A)
		88°38'13"	S62°21'41"W	101.990			
30					1801877.641	6481672.572	NLY BDY PAR ONE (XX1-A)
		269°14'50"	N28°23'29"W	65.000			
31					1801934.823	6481641.665	ANGLE PT ON NLY BDY PAR ONE (XX1-A)
		90°45'10"	S62°21'41"W	100.000			
32					1801888.434	6481553.076	ANGLE PT ON NLY BDY PAR ONE (XX1-A)
		89°39'51"	S27°58'28"E	65.000			
33					1801831.029	6481583.566	ANGLE PT ON NLY BDY PAR ONE (XX1-A)
		270°20'09"	S62°21'41"W	35.000			
34					1801814.792	6481552.560	NWLY COR. PAR ONE (XX1-A)
		89°39'51"	S27°58'28"E	22.850			
35					1801794.612	6481563.279	SWLY BDY PAR ONE (XX1-A)@EETP
		269°50'34"	S61°52'06"W	167.810			
36					1801715.490	6481415.293	NLY BDY EETP
		177°32'23"	S59°24'29"W	99.790			
37					1801664.705	6481329.392	NLY BDY EETP
		181°11'27"	S60°35'56"W	85.740			
38					1801622.613	6481254.695	NLY BDY EETP
		175°54'48"	S56°30'44"W	106.183			
41					1801564.026	6481166.138	NLY BDY EETP
		268°38'26"	N34°50'50"W	1808.777			
2					1803048.450	6480132.621	ANGLE PT. SLY BDY PAR. II 24RS74

E:\PARCEL-II-MI.TRV
[[Closure View - BDY PAR. II RES-2]]

[Traverse Summary]
Closed Loop 21 Points From 2 To 2
Horizontal Distance: 9489.679 Feet Slope Distance: 9489.679 Feet
Area: 2643786.34 SqFt 60.693 Acres

[Error Summary]
Relative: 1 : 0 (Closed Loop) Linear:0.000 Feet Direction:N0°00'00"E
Northing:0.000 Feet Easting:0.000 Feet Elevation:0.000 Feet
Angular: None

[Closing Points]

	Point	Northing	Easting	Elevation
From	2	1803048.450	6480132.621	0.00
To	2	1803048.450	6480132.621	0.00
Correct	2	1803048.450	6480132.621	0.00

[Adjustments]

LEGAL DESCRIPTION
FOR
PARCEL X–B(1)
AT
MARE ISLAND, VALLEJO CALIFORNIA

A tract of land being a portion of the former Mare Island Naval Shipyard, situate in the City of Vallejo, Solano County, California described as follows:

Said tract of land being a portion of Parcel X as shown on that certain Record of Survey Map entitled "AMENDED RECORD OF SURVEY Showing PARCEL X" recorded on January 24, 2002, filed in Book 24, Surveys, at Page 12, Official Records of Solano County, State of California; also said tract of land being all of those lands for Exception Parcel 1 not conveyed and excepted from the Economic Development Conveyance Parcel X for those lands conveyed to the City of Vallejo by the United States of America by Quitclaim Deed having Document Number 2000-00082540 as filed for record in the Official Records of Solano County on October 17, 2001, and described on pages 188, 189 and 190 (being the Plat to Accompany Legal Description) in said Quitclaim Deed having Document Number 2000-0008254; and said tract of land being more particularly described as follows:

BEGINNING at the Point of Beginning of said Exception Parcel 1 excepted from Economic Development Conveyance Parcel X of those lands conveyed to the City of Vallejo by the United States of America by Quitclaim Deed having Document Number 2000-0008254,

1. thence along the northerly boundary line of said Exception Parcel 1, N71°53'14"E, 56.56 feet;

2. thence along the northeasterly boundary line of said Exception Parcel 1, S31°39'04"E, 700.69 feet;

3. thence continuing along the northeasterly boundary line of said Exception Parcel 1, S34°59'15"E, 161.98 feet;

4. thence continuing along the northeasterly boundary line of said Exception Parcel 1, S41°35'08"E, 88.58 feet;

5. thence continuing along the northeasterly boundary line of said Exception Parcel 1, S36°37'56"E, 147.13 feet;

6. thence continuing along the northeasterly boundary line of said Exception Parcel 1, S49°47'11"E, 62.05 feet;

LEGAL DESCRIPTION
FOR
PARCEL X-B(1)
AT
MARE ISLAND, VALLEJO CALIFORNIA
(Continued)

7. thence continuing along the northeasterly boundary line of said Exception Parcel 1, S11°23'46"W, 24.94 feet;

8. thence continuing along the northeasterly boundary line of said Exception Parcel 1, S61°04'20"W, 31.68 feet;

9. thence continuing along the northeasterly boundary line of said Exception Parcel 1, S5°34'07"E, 29.29 feet;

10. thence continuing along the northeasterly boundary line of said Exception Parcel 1, N84°10'19"E, 99.53 feet;

11. thence continuing along the northeasterly boundary line of said Exception Parcel 1, S73°55'26"E, 50.76 feet;

12. thence continuing along the northeasterly boundary line of said Exception Parcel 1, S34°03'14"E, 21.08 feet;

13. thence continuing along the northeasterly boundary line of said Exception Parcel 1, S19°39'01"E, 42.04 feet;

14. thence continuing along the northeasterly boundary line of said Exception Parcel 1, S2°47'27"W, 148.64 feet;

15. thence continuing along the northeasterly boundary line of said Exception Parcel 1, S2°47'27"W, 94.12 feet;

16. thence continuing along the northeasterly boundary line of said Exception Parcel 1, S43°04'48"E, 291.59 feet;

17. thence continuing along the northeasterly boundary line of said Exception Parcel 1, S46°00'48"E, 70.09 feet;

LEGAL DESCRIPTION
FOR
PARCEL X-B(1)
AT
MARE ISLAND, VALLEJO CALIFORNIA
(Continued)

18. thence continuing along the northeasterly boundary line of said Exception Parcel 1 S9°01'42"E, 46.22 feet to the intersection with the boundary line of the JOY SURVEY OF THE RETRACEMENT OF TRACT 38 per Record of Survey file for record in Book 21 of Surveys at Page 94, Solano County Records on April 26, 2001,

19. thence along the southeasterly boundary line of said Exception Parcel 1 and along the boundary line of said JOY SURVEY OF THE RETRACEMENT OF TRACT 38, N43°30'16"W, 54.94 feet;

20. thence continuing along the southeasterly boundary line of said Exception Parcel 1 and along the boundary line of said JOY SURVEY OF THE RETRACEMENT OF TRACT 38, S72°45'03"W, 329.98 feet;

21. thence along the southwesterly boundary line of said Exception Parcel 1 and along the boundary line of said JOY SURVEY OF THE RETRACEMENT OF TRACT 38, N1°28'52"E, 250.90 feet;

22. thence continuing along the southwesterly boundary line of said Exception Parcel 1 and along the boundary line of said JOY SURVEY OF THE RETRACEMENT OF TRACT 38, N22°15'39"W, 323.51 feet;

23. thence continuing along the southwesterly boundary line of said Exception Parcel 1 and along the boundary line of said JOY SURVEY OF THE RETRACEMENT OF TRACT 38, N26°30'34"W, 666.82 feet;

24. thence continuing along the southwesterly boundary line of said Exception Parcel 1 and along the boundary line of said JOY SURVEY OF THE RETRACEMENT OF TRACT 38, N29°45'30"W, 171.66 feet;

25. thence continuing along the southwesterly boundary line of said Exception Parcel 1 and along the boundary line of said JOY SURVEY OF THE RETRACEMENT OF TRACT 38, N33°0'27"W, 450.40 feet to the **Point of BEGINNING**;

END OF DESCRIPTION

LEGAL DESCRIPTION
FOR
PARCEL X-B(3)
AT
MARE ISLAND, VALLEJO CALIFORNIA
(Continued)

19. thence continuing along the northeasterly boundary line of said Exception Parcel 2, S55°25'14"E, 68.42 feet;

20. thence continuing along the northeasterly boundary line of said Exception Parcel 2, S59°06'54"E, 49.79 feet;

21. thence continuing along the northeasterly boundary line of said Exception Parcel 2, S60°39'58"E, 137.63 feet;

22. thence continuing along the northeasterly boundary line of said Exception Parcel 2, S49°49'07"E, 41.62 feet;

23. thence continuing along the northeasterly boundary line of said Exception Parcel 2, S31°38'26"E, 71.60 feet;

24. thence continuing along the northeasterly boundary line of said Exception Parcel 2, S71°03'22"E, 53.43 feet to the Point of **BEGINNING**.

END OF DESCRIPTION

Said Tract of land contains 3.806 acres, more or less.

ALL AS SHOWN ON "PLAT TO ACCOMPANY LEGAL DESCRIPTION FOR PARCEL X-B(3) MARE ISLAND, VALLEJO CALIFORNIA" ATTACHED HERETO AND MADE APART HEREOF.

The bearings and distances used in this description are based on the California State Coordinate System 1983, Zone 2.

All distances used in this description are ground distances. To obtain Grid distances Multiply the ground distances by: 1.000062043

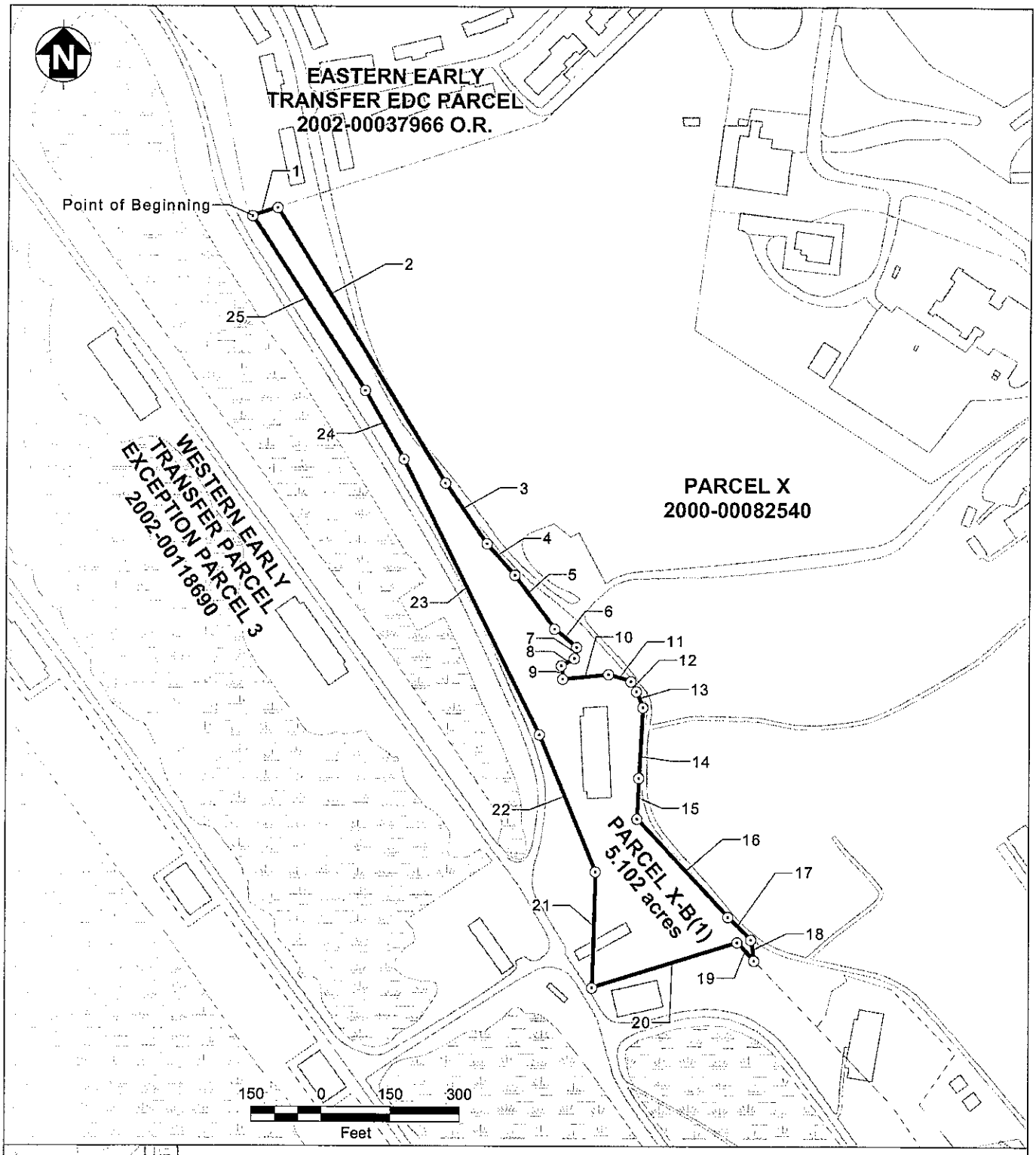
PREPARED BY:

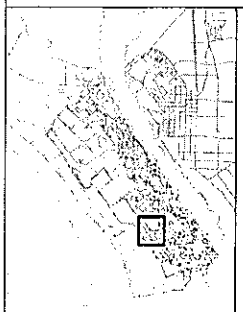
Michael S. Mahoney

Michael S. Mahoney, P.L.S. 2/2/2010
Rev. 4/15/2010

PROFESSIONAL LAND SURVEYOR
MICHAEL S. MAHONEY
NO. 5577
Exp. 12/31/11
SURVEYOR
STATE OF CALIFORNIA

REVIEWED & ACCEPTED
DATE 5/12/10





ANGLE POINTS

BOUNDARY PER LEGAL DESCRIPTION

PARCEL BOUNDARIES

Reviewed by Mike Mahoney, L.S.

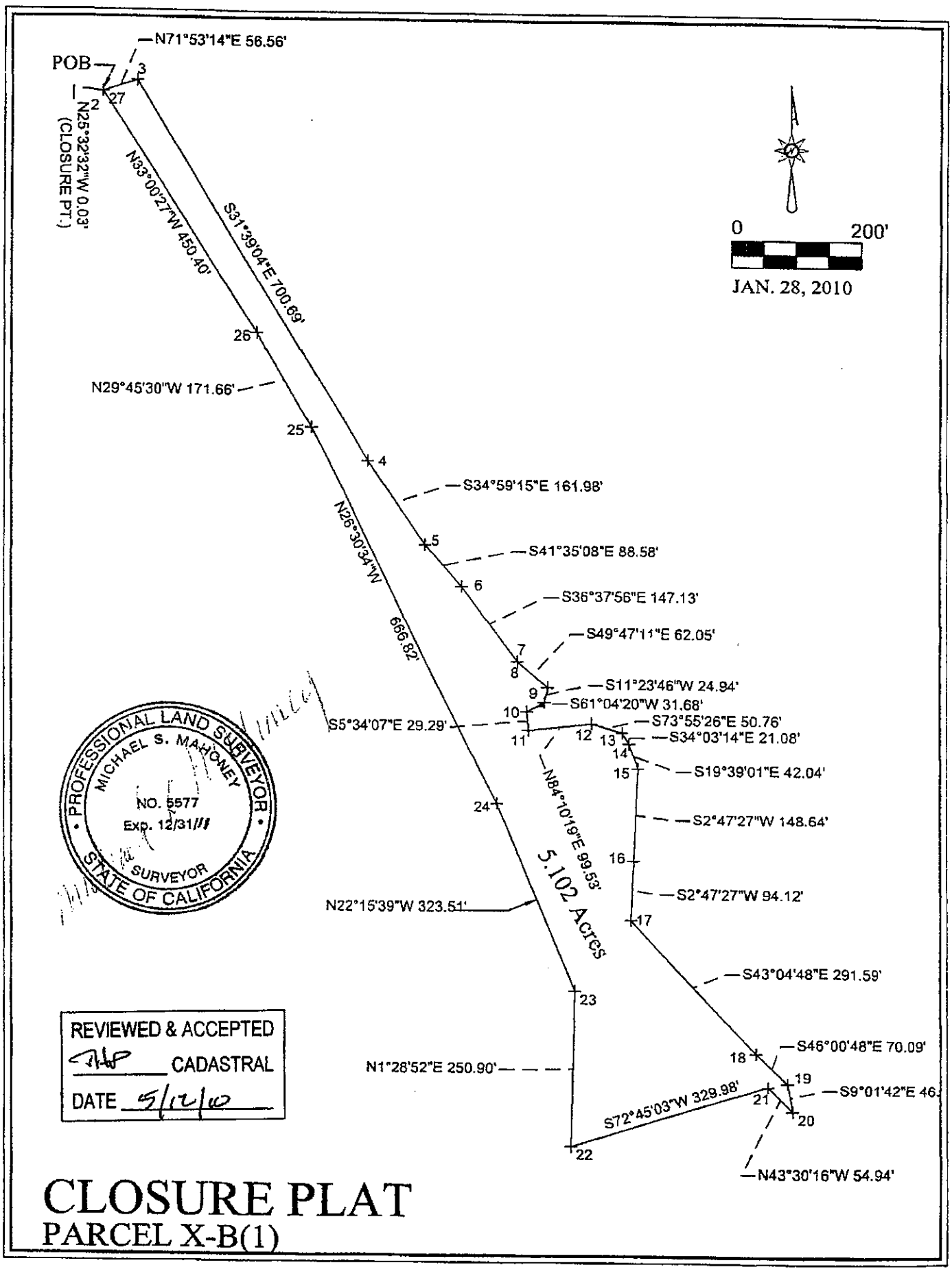
ChaduxTt JV
Consulting Engineers and Scientists

PLAT TO ACCOMPANY LEGAL DESCRIPTION FOR PARCEL X-B(1) MARE ISLAND, VALLEJO, CALIFORNIA

2010-03-16 v:\mare island\projects\053_navy_legals\plat_x-b1.mxd TtEMI-AL simon.cardinale

Attachment B

Closure Plat and Calculation



CLOSURE PLAT
PARCEL X-B(1)

E:\PAR-X-B(1)-1-2-10.TRV
[[Traverse:CLOSURE-PLAT 222296.74SqFt 5.103Acres]]

Point	Type	Horiz Angle	Bearing	Horiz Dist	Northing	Easting	Description
2					1792740.785	6483890.618	TPOB
			N71°53'14"E	56.560			
3					1792758.369	6483944.375	NELY BDY PARCEL X-B(1)
		256°27'42"	S31°39'04"E	700.690			
4					1792161.900	6484312.059	NELY BDY PARCEL X-B(1)
		176°39'49"	S34°59'15"E	161.980			
5					1792029.193	6484404.938	NELY BDY PARCEL X-B(1)
		173°24'07"	S41°35'08"E	88.580			
6					1791962.939	6484463.732	NELY BDY PARCEL X-B(1)
		184°57'12"	S36°37'56"E	147.130			
7					1791844.869	6484551.521	NELY BDY PARCEL X-B(1)
		166°50'45"	S49°47'11"E	62.050			
8					1791804.808	6484598.905	NELY BDY PARCEL X-B(1)
		241°10'57"	S11°23'46"W	24.940			
9					1791780.359	6484593.977	NELY BDY PARCEL X-B(1)
		229°40'34"	S61°04'20"W	31.680			
10					1791765.035	6484566.250	NELY BDY PARCEL X-B(1)
		113°21'33"	S5°34'07"E	29.290			
11					1791735.884	6484569.092	NELY BDY PARCEL X-B(1)
		89°44'26"	N84°10'19"E	99.530			
12					1791745.990	6484668.107	NELY BDY PARCEL X-B(1)
		201°54'15"	S73°55'26"E	50.760			
13					1791731.934	6484716.882	NELY BDY PARCEL X-B(1)
		219°52'12"	S34°03'14"E	21.080			
14					1791714.469	6484728.687	NELY BDY PARCEL X-B(1)
		194°24'13"	S19°39'01"E	42.040			
15					1791674.877	6484742.824	NELY BDY PARCEL X-B(1)
		202°26'28"	S2°47'27"W	148.640			
16					1791526.414	6484735.587	NELY BDY PARCEL X-B(1)
		180°00'00"	S2°47'27"W	94.120			
17					1791432.405	6484731.004	NELY BDY PARCEL X-B(1)
		134°07'45"	S43°04'48"E	291.590			
18					1791219.428	6484930.165	NELY BDY PARCEL X-B(1)
		177°04'00"	S46°00'48"E	70.090			
19					1791170.751	6484980.595	NELY BDY PARCEL X-B(1)
		216°59'06"	S9°01'42"E	46.220			
20					1791125.104	6484987.848	NELY BDY PARCEL X-B(1)
		325°31'26"	N43°30'16"W	54.940			
21					1791164.953	6484950.027	SELY BDY PARCEL X-B(1)
		116°15'19"	S72°45'03"W	329.980			
22					1791067.104	6484634.888	SELY BDY PARCEL X-B(1)
		288°43'49"	N1°28'52"E	250.900			
23					1791317.921	6484641.373	SWLY BDY PARCEL X-B(1)
		156°15'29"	N22°15'39"W	323.510			
24					1791617.319	6484518.820	SWLY BDY PARCEL X-B(1)
		175°45'05"	N26°30'34"W	666.820			
25					1792214.030	6484221.188	SWLY BDY PARCEL X-B(1)
		176°45'04"	N29°45'30"W	171.660			
26					1792363.053	6484135.986	SWLY BDY PARCEL X-B(1)
		176°45'03"	N33°00'27"W	450.400			

E:\PAR-X-B(1)-1-2-10.TRV

27				1792740.758	6483890.631 SWLY BDY PARCEL X-B(1)
	187°27'57"	N25°32'30"W	0.030		
2				1792740.785	6483890.618 TPOB

LEGAL DESCRIPTION
FOR
PARCEL X-B(2)
AT
MARE ISLAND, VALLEJO CALIFORNIA

A tract of land being a portion of the former Mare Island Naval Shipyard, situate in the City of Vallejo, Solano County, California described as follows:

Said tract of land being a portion of Parcel X as shown on that certain Record of Survey Map entitled "AMENDED RECORD OF SURVEY Showing PARCEL X" recorded on January 24, 2002, filed in Book 24, Surveys, at Page 12, Official Records of Solano County, State of California; also said tract of land being a portion of those lands for Exception Parcel 2 not conveyed and excepted from the Economic Development Conveyance Parcel X for those lands conveyed to the City of Vallejo by the United States of America by Quitclaim Deed having Document Number 2000-00082540 as filed for record in the Official Records of Solano County on October 17, 2001, and described on pages 191, 192 and 193 (being the Plat to Accompany Legal Description) in said Quitclaim Deed having Document Number 2000-0008254; and said tract of land being more particularly described as follows:

BEGINNING at the Point of Beginning of said Exception Parcel 2 excepted from Economic Development Conveyance Parcel X of those lands conveyed to the City of Vallejo by the United States of America by Quitclaim Deed having Document Number 2000-0008254,

1. thence along the northwesterly boundary line of said Exception Parcel 2, S66°26'05"E, 7.65 feet;

2. thence continuing along the northwesterly boundary line of said Exception Parcel 2, N35°21'50"E, 28.69 feet;

3. thence continuing along the northwesterly boundary line of said Exception Parcel 2, N14°32'46"E, 53.52 feet;

4. thence continuing along the northwesterly boundary line of said Exception Parcel 2, N54°48'10"E, 39.78 feet;

5. thence continuing along the northwesterly boundary line of said Exception Parcel 2, N26°34'18"W, 13.91 feet;

6. thence along the northeasterly boundary line of said Exception Parcel 2, S73°02'55"E, 106.47 feet;

LEGAL DESCRIPTION
FOR
PARCEL X-B(2)
AT
MARE ISLAND, VALLEJO CALIFORNIA
(Continued)

7. thence continuing along the northeasterly boundary line of said Exception Parcel 2, S44°54'57"E, 198.40 feet;

8. thence continuing along the northeasterly boundary line of said Exception Parcel 2, S35°15'20"W, 133.57 feet;

9. thence continuing along the northeasterly boundary line of said Exception Parcel 2, S39°19'37"E, 126.53 feet;

10. thence continuing along the northeasterly boundary line of said Exception Parcel 2, N79°45'43"E, 139.94 feet;

11. thence continuing along the northeasterly boundary line of said Exception Parcel 2, S36°48'05"E, 300.52 feet;

12. thence continuing along the northeasterly boundary line of said Exception Parcel 2, N76°34'07"W, 48.64 feet;

13. thence continuing along the northeasterly boundary line of said Exception Parcel 2, S32°42'51"W, 172.03 feet;

14. thence continuing along the northeasterly boundary line of said Exception Parcel 2, N52°44'46"W, 12.27 feet to the point of intersection of the Joy Survey Line as shown on Record of Survey filed in Book 24 of Surveys, at Page 51 Official Records of Solano County on August 23, 2001;

15. thence along the southwesterly boundary line of said Exception Parcel 2 and along said, Joy Survey Line, N35°15'24"W, 534.26 feet;

16. thence continuing along the southwesterly boundary line of said Exception Parcel 2 and along said Joy Survey Line, N43°30'16"W, 243.49 feet to the Point of **BEGINNING.**

END OF DESCRIPTION

LEGAL DESCRIPTION
FOR
PARCEL X-B(2)
AT
MARE ISLAND, VALLEJO CALIFORNIA
(Continued)

Said Tract of land contains 2.735 acres, more or less.

ALL AS SHOWN ON "PLAT TO ACCOMPANY LEGAL DESCRIPTION FOR PARCEL X-B(2) VALLEJO CALIFORNIA" ATTACHED HERETO AND MADE APART HEREOF.

The bearings and distances used in this description are based on the California State Coordinate System 1983, Zone 2.

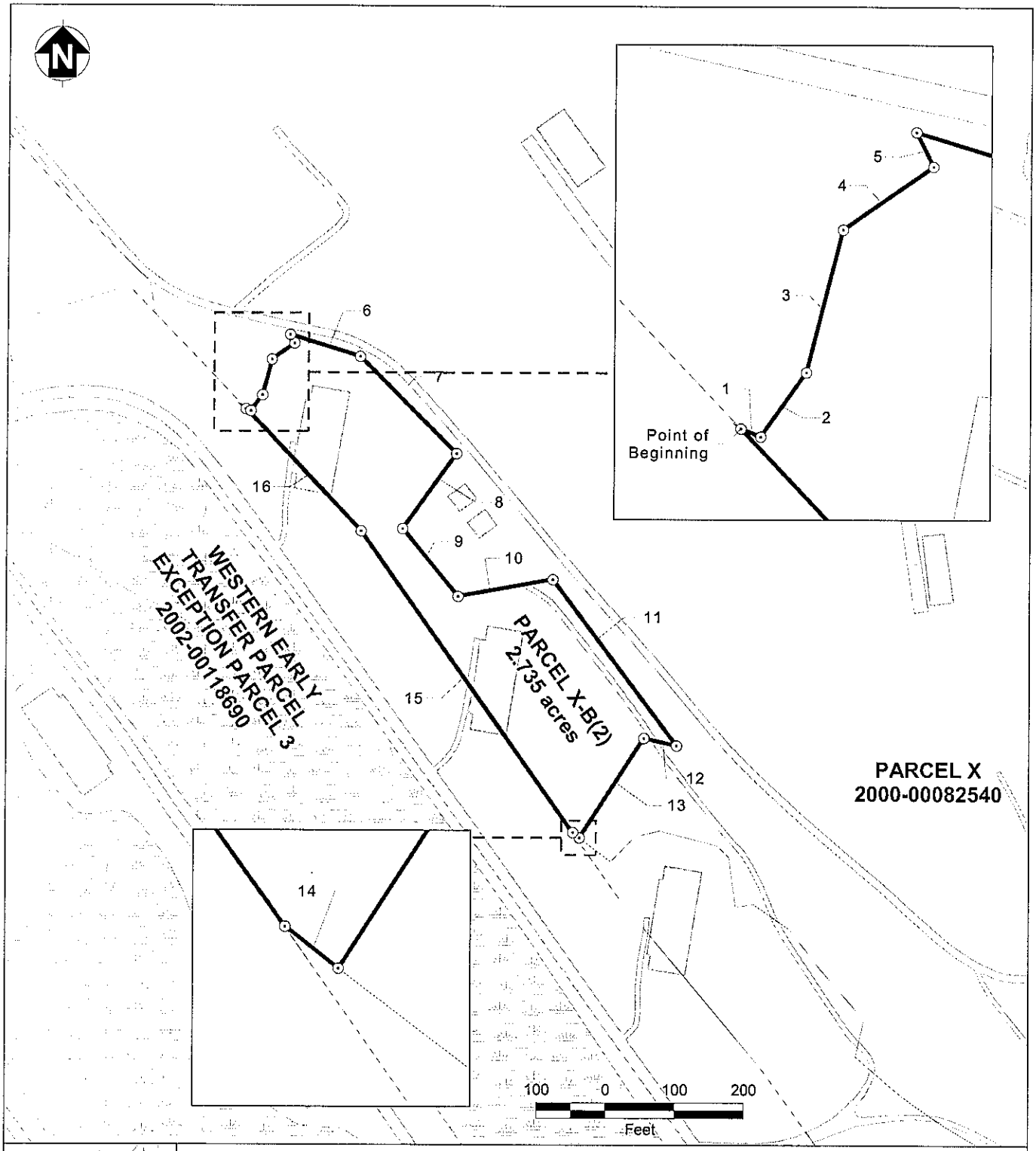
All distances used in this description are ground distances. To obtain Grid distances Multiply the ground distances by: 1.000062043

PREPARED BY:

Michael S. Mahoney, P.L.S
Rev. 4/15/2010

PROFESSIONAL LAND SURVEYOR
MICHAEL S. MAHONEY
NO. 5577
Exp. 12/31/11
SURVEYOR
STATE OF CALIFORNIA

REVIEWED AND ACCEPTED
CADASTRAL
DATE: 5/12/10



ANGLE POINTS

BOUNDARY PER LEGAL DESCRIPTION

PARCEL BOUNDARIES

Reviewed by Mike Mahoney, L.S.

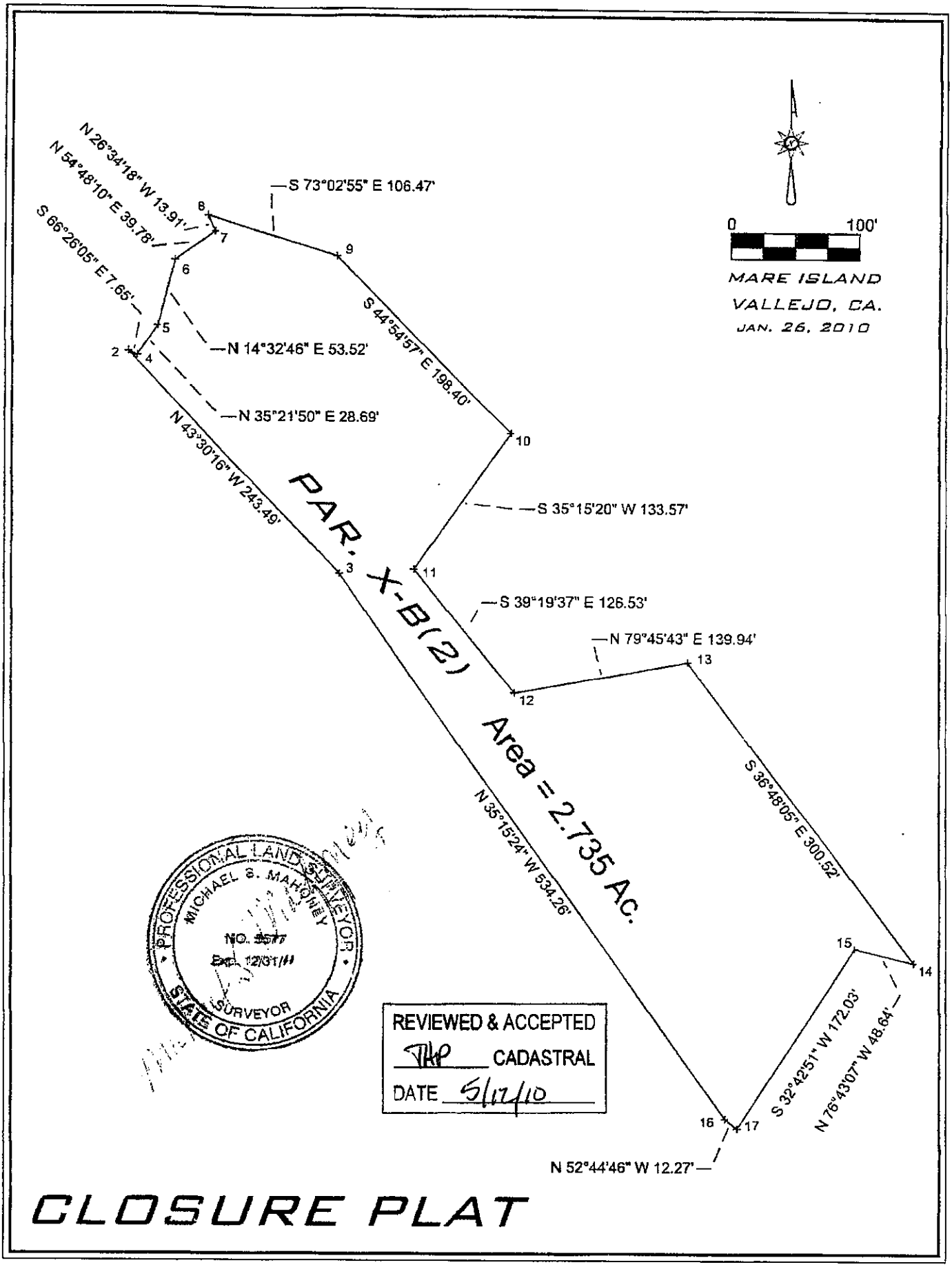
ChaduxTt JV
Consulting Engineers and Scientists

PLAT TO ACCOMPANY LEGAL DESCRIPTION FOR PARCEL X-B(2) MARE ISLAND, VALLEJO, CALIFORNIA

2010-03-16 v:\mare island\projects\053_navy_legals\plat_x-b2.mxd TtEMI-AL simon.cardinale

Attachment A

Closure Plat and Calculation



CLOSURE PLAT

E:\PAR-X(B)2.TRV
[[Traverse:PARCEL X-(B)2 RES-1 119130.47SqFt 2.735Acres]]

Point	Type	Horiz Angle	Bearing	Horiz Dist	Northing	Easting	Description
2					1790987.073	6485118.907	POB NWLY COR PAR. X(B)2
			S66°26'05"E	7.650			
4					1790984.015	6485125.919	NWLY BDY PAR. X(B)2
		101°47'55"	N35°21'50"E	28.690			
5					1791007.411	6485142.524	NWLY BDY PAR. X(B)2
		159°10'56"	N14°32'46"E	53.520			
6					1791059.215	6485155.966	NWLY BDY PAR. X(B)2
		220°15'24"	N54°48'10"E	39.780			
7					1791082.144	6485188.473	NWLY BDY PAR. X(B)2
		98°37'32"	N26°34'18"W	13.910			
8					1791094.585	6485182.251	NWLY BDY PAR. X(B)2
		313°31'23"	S73°02'55"E	106.470			
9					1791063.543	6485284.095	NELY BDY PAR. X(B)2
		208°07'58"	S44°54'57"E	198.400			
10					1790923.047	6485424.179	NELY BDY PAR. X(B)2
		260°10'17"	S35°15'20"W	133.570			
11					1790813.975	6485347.079	NELY BDY PAR. X(B)2
		105°25'03"	S39°19'37"E	126.530			
12					1790716.099	6485427.267	NELY BDY PAR. X(B)2
		119°05'20"	N79°45'43"E	139.940			
13					1790740.972	6485564.979	NELY BDY PAR. X(B)2
		243°26'12"	S36°48'05"E	300.520			
14					1790500.340	6485745.003	NELY BDY PAR. X(B)2
		320°04'58"	N76°43'07"W	48.640			
15					1790511.515	6485697.664	NELY BDY PAR. X(B)2
		109°25'58"	S32°42'51"W	172.030			
16					1790366.773	6485604.691	NELY BDY PAR. X-B(2)
		274°32'23"	N52°44'46"W	12.266			
17					1790374.198	6485594.928	NELY BDY PAR. X-B(2)
		197°29'22"	N35°15'24"W	534.264			
3					1790810.465	6485286.529	SWLY BDY PAR. X(B)2@ JOY LINE
		171°45'08"	N43°30'16"W	243.490			
2					1790987.073	6485118.907	POB NWLY COR PAR. X(B)2

E:\PAR-X(B)2.TRV
[[Closure View - PARCEL X-(B)2 RES-1]]

[Traverse Summary]
Closed Loop 17 Points From 2 To 2
Horizontal Distance: 2159.671 Feet Slope Distance: 2159.671 Feet
Area: 119130.47 SqFt 2.735 Acres

[Error Summary]
Relative: 1 : 0 (Closed Loop) Linear:0.000 Feet Direction:N0°00'00"E
Northing:0.000 Feet Easting:0.000 Feet Elevation:0.000 Feet
Angular: None

[Closing Points]

	Point	Northing	Easting	Elevation
From	2	1790987.073	6485118.907	0.00
To	2	1790987.073	6485118.907	0.00
Correct	2	1790987.073	6485118.907	0.00

[Adjustments]

EXHIBIT "B"

FINDING OF SUITABILITY TO TRANSFER (FOST)
DATED SEPTEMBER 2010

Final

Finding of Suitability to Transfer for Parcels II, X-B(1), X-B(2), and Sanitary Sewage Treatment Plant Outfall of Parcel I

Former Mare Island Naval Shipyard
Vallejo, California

September 2010

CHAD-3213-0066-0004

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS

§	Section
ABM	Abrasive blast material
ACM	Asbestos-containing material
AST	Aboveground storage tank
BRAC	Base Realignment and Closure
BRRM	Base Redevelopment and Realignment Manual
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DGM	Digital geophysical mapping
DHS	Department of Health Services
DMM	Discarded military munitions
DoD	Department of Defense
DOM	Domestic pump station
DTSC	Department of Toxic Substances Control
EBS	Environmental baseline survey
EETP	Eastern Early Transfer Parcel
EPA	U.S. Environmental Protection Agency
ESQD	Explosive safety quantity distance
FFSRA	Federal Facility Site Remediation Agreement
FNBW	Former North Building Ways
FOST	Finding of Suitability to Transfer
GRA	Grounded rocker arm
G-RAM	General radioactive material
HSA	Horse Stables Area
IA	Investigation area
IR	Installation Restoration
LBP	Lead-based paint
Mare Island	Mare Island Naval Shipyard
MDAS	Material documented as safe
MEC	Munitions and explosives of concern
MRP	Munitions Response Program
Navy	Department of the Navy

Final

Finding of Suitability to Transfer for Parcels II, X-B(1), X-B(2), and Sanitary Sewage Treatment Plant Outfall of Parcel I

Former Mare Island Naval Shipyard
Vallejo, California

September 2010

CHAD-3213-0066-0004

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TABLE OF CONTENTS (Continued)

FIGURES

TABLES

ATTACHMENTS

ACRONYMS AND ABBREVIATIONS

§	Section
ABM	Abrasive blast material
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AST	Aboveground storage tank
BRAC	Base Realignment and Closure
BRRM	Base Redevelopment and Realignment Manual
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DGM	Digital geophysical mapping
DHS	Department of Health Services
DMM	Discarded military munitions
DoD	Department of Defense
DOM	Domestic pump station
DTSC	Department of Toxic Substances Control
EBS	Environmental baseline survey
EETP	Eastern Early Transfer Parcel
EPA	U.S. Environmental Protection Agency
ESQD	Explosive safety quantity distance
FFSRA	Federal Facility Site Remediation Agreement
FNBW	Former North Building Ways
FOST	Finding of Suitability to Transfer
GRA	Grounded rocker arm
G-RAM	General radioactive material
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LBP	Lead-based paint
Mare Island	Mare Island Naval Shipyard
MDAS	Material documented as safe
MEC	Munitions and explosives of concern
MRP	Munitions Response Program
Navy	Department of the Navy

NFA	No further action
NNPP	Naval Nuclear Propulsion Program
PA	Preliminary assessment
PCAP	Petroleum corrective action plan
PCB	Polychlorinated biphenyl
PMO	Program Management Office
PRC	PRC Environmental Management, Inc.
RAP	Remedial action plan
RCRA	Resource Conservation and Recovery Act
SEBS	Supplemental environmental baseline survey
SI	Site inspection
SSPORTS	Supervisor of Shipbuilding, Conversion, and Repair, Portsmouth, Virginia, Environmental Detachment, Vallejo
SSTP	Sanitary sewage treatment plant
Sullivan	Sullivan Consulting Group
SWMU	Solid waste management unit
Tetra Tech	Tetra Tech EM Inc.
TCRA	Time-critical removal action
TSCA	Toxic Substances Control Act
UST	Underground storage tank
Water Board	San Francisco Bay Regional Water Quality Control Board
Weston	Weston Solutions, Inc.
WETP	Western Early Transfer Parcel
WMA	Western Magazine Area

1.0 PURPOSE

This Finding of Suitability to Transfer (FOST) summarizes how the requirements and notifications for hazardous substances, petroleum products and derivatives, and other regulated material within Parcels II, X-B(1), X-B(2), and the Sanitary Sewage Treatment Plant (SSTP) Outfall of Parcel I at the former Mare Island Naval Shipyard (Mare Island) in Vallejo, California, have been satisfied by the Department of the Navy (Navy). Through the Base Realignment and Closure (BRAC) process, the Navy intends to transfer, by deed, Parcels II, X-B(1), and X-B(2) to the City of Vallejo pursuant to the Economic Development Conveyance Memorandum of Agreement as amended (Navy and City of Vallejo 1999). In addition, the Navy intends to transfer the SSTP Outfall of Parcel I to the State of California pursuant to reversionary provisions in state law (State of California 1897; State of California 1963). This FOST was prepared in accordance with the Department of Defense (DoD) Base Redevelopment and Realignment Manual (BRRM) (DoD 2006) and the BRAC Program Management Office (PMO) Policy for Processing Findings of Suitability for Transfer or Lease (BRAC PMO Policy) (Navy 2008). Additional information is contained in the supporting documents referenced in the FOST, which are available in the Navy's public information repository and administrative record[1] for Mare Island.

A basewide environmental baseline survey (EBS) (Supervisor of Shipbuilding, Conversion, and Repair, Portsmouth, Virginia, Environmental Detachment, Vallejo [SSPORTS] 1994) was conducted in 1994. In 2005, parcels owned by the Navy were updated in a supplemental EBS (SEBS) based on progress made under the Navy's environmental programs (SulTech 2005).

2.0 PROPERTY DESCRIPTION

Mare Island is located 25 miles northeast of San Francisco in Vallejo, California (Figure 1), and was closed in 1996. The property subject to this FOST consists of four parcels of land that make up approximately 74.2 acres. Figure 2 is a basewide map that provides the location of the parcels. Table 1 presents a summary of the buildings and structures within the parcel areas. A brief description of the parcels follows:

- **Parcel II** – consists of approximately 60.7 acres located in the northeastern portion of Mare Island. The eastern boundary of the parcel is shoreline, which is defined as the mean high water line (Figure 3). Utilities present at the site include electrical, natural gas, stormwater drains, and sanitary sewer flow lines and a force main. In addition, Parcel II has two appurtenant structures (Fleet Reserve Pier and remnants of former building ways and associated berthing) that will be transferred as part of this FOST.

- **Parcels X-B(1) and X-B(2)** – consist of approximately 7.8 acres of land in the southwestern portion of Mare Island (Figure 4). Utilities present at the parcels include saltwater supply lines as well as electrical lines.

[1] Documents and relevant information relied on in the remedy selection process are available in a public information repository (John F. Kennedy Library, 505 Santa Clara Avenue, Vallejo, California 94590, (866) 572-7587) and the Navy's administrative record (Naval Facilities Engineering Command Southwest, Administrative Records Coordinator, Attn: Ms. Diane Silva, 1220 Pacific Highway, Code EV33, NBSD Building 3519, San Diego, California 92132, (619) 556-1280).

- **SSTP Outfall of Parcel I** – consists of approximately 5.7 acres of land submerged beneath San Pablo Bay off the western shore of Mare Island (Figure 5). This parcel is also known as Western Early Transfer Parcel (WETP) Exception Parcel 6. With the exception of the 30-inch concrete outfall pipe that terminates within this parcel, no utilities are located within this portion of Parcel I.

3.0 REGULATORY COORDINATION

Mare Island is not listed on the U.S. Environmental Protection Agency (EPA) National Priorities List. Under Executive Order 12580, the Navy is the lead agency responsible for cleanup efforts at Navy properties. A Federal Facility Site Remediation Agreement (FFSRA) for Mare Island was signed by the Navy, EPA, the California Department of Toxic Substances Control (DTSC), and the San Francisco Bay Regional Water Quality Control Board (Water Board) on September 29, 1992. The 1992 FFSRA was superseded in 2002, and the new FFSRA took effect on July 15, 2002. EPA was not a signatory to this new agreement. The FFSRA defines the Navy's response action and corrective action obligations under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA). Representatives of DTSC are acting in a lead consultative role with the Navy for coordinating and overseeing environmental cleanup at Mare Island. Representatives from DTSC, the Water Board, and EPA have reviewed the FOST and responses to the regulatory agency's comments, as well as public comments, are provided in Attachment 1. In addition, the Navy initiated additional changes prior to finalizing the FOST to ensure consistency within the document based on updated site status for the FOST property and adjacent sites (Attachment 2). The DTSC and Water Board provided a letter of concurrence for the Final FOST for Parcels II, X-B(1), X-B(2), and SSTP Outfall of Parcel I (Attachment 3).

3.1 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT

CERCLA response actions are initiated at environmental sites where CERCLA hazardous substances have been or may have been released or disposed, and are carried out under the Navy's Installation Restoration (IR) Program, radiological program, and Munitions Response Program (MRP). As discussed in Section 4.0, the response actions were conducted in the following areas: Former North Building Ways (FNBW) (partially located in Parcel II), Western Magazine Area (WMA) (formerly included Parcels X-B[1] and X-B[2]), Horse Stable Area (HSA) (partially overlaps Parcel X-B[1]), and the SSTP Outfall (located in Parcel I).

3.2 RESOURCE CONSERVATION AND RECOVERY ACT CORRECTIVE ACTION COMPLETE DETERMINATION

DTSC is the agency responsible for enforcing the hazardous waste laws and regulations in California. California was granted authorization by EPA to administer a state hazardous waste program in lieu of the federal RCRA program. The Hazardous Waste Control Law codified in the California Health and Safety Code is the basic law that implements the waste management system in California. Sections 25200.10 and 25187 of Chapter 6.5 of Division 20 of the

California Health and Safety Code provide the authority to require corrective action at a hazardous waste facility. These sections state that DTSC and any permit issued by DTSC require corrective action for all releases of hazardous waste or constituents from a solid waste management unit (SWMU) or a hazardous waste management unit. For implementing corrective action, a hazardous waste facility is defined as all contiguous property under the control of the owner or operator of the facility (*California Code of Regulations*, Title 22, Section [§] 66260.10). DTSC's determination that all corrective action has been completed for a portion of a facility eliminates the requirement to conduct further corrective action for the current and future owners of the property. The FOST parcels were included under the Mare Island RCRA permit because the parcels subject to this FOST were included in the Mare Island hazardous waste facility boundaries.

The Navy requested that DTSC make a corrective action determination that no further RCRA corrective action is required for Parcels II, X-B(1), X-B(2), and the SSTP Outfall of Parcel I. The Navy also requested that DTSC modify the Mare Island RCRA Part B permit to remove the parcels from the RCRA hazardous waste facility permitted boundary. Documentation for the RCRA corrective action complete determination is included in Attachment 4.

4.0 SUMMARY OF ENVIRONMENTAL CONDITIONS AND NOTIFICATIONS

This section summarizes the environmental conditions and notifications as they relate to CERCLA and RCRA, petroleum products and derivatives, asbestos-containing materials (ACM), lead-based paint (LBP), and other regulated materials. Pursuant to 40 Code of Federal Regulations Part 373, the deed for each parcel will contain a notice of hazardous substances and petroleum products and derivatives stored, released, or disposed of, if any, within the parcel. These notices are provided in Attachments 5 and 6, respectively.

In addition to the hazardous substance notice, the BRRM and the BRAC PMO Policy outline other environmental conditions that must be addressed in a FOST. A summary of all potentially applicable topics and the affected properties is shown in Table 2. These topics are further discussed below, including the environmental conditions and actions taken on the parcels, identification of notification requirements related to CERCLA and RCRA, munitions response, petroleum corrective action, and information regarding ACM, LBP, and polychlorinated biphenyls (PCB).

Environmental sites within the FOST parcels have received regulatory agency concurrence for no further action (NFA). NFA designations were achieved for these parcels because no corrective action was required to provide adequate protection of human health and the environment, or because the required corrective action has been completed. NFA designations result in the parcels being suitable for transfer as long as the applicable notifications and restrictions, which are outlined below in Sections 4.0 and 5.0, are followed.

4.1 CERCLA/RCRA

This section lists the CERCLA sites, including radiological and MRP sites, located within the FOST parcels. This section also lists the RCRA sites within the FOST parcels, which were identified during a RCRA facility assessment (A.T. Kearney, Inc. 1987) and a subsequent preliminary assessment (PA)/site inspection (SI) (PRC Environmental Management Inc. [PRC] 1995a). However, cleanup of two RCRA sites located within Parcel II were completed under the Navy's separate basewide radiological program because the RCRA sites were related to historical radiological activities. The basewide radiological surveys and remediation were conducted in a manner that satisfied the statutory requirements of both CERCLA and RCRA. Site closure actions for all environmental sites listed below are detailed in Table 3.

4.1.1 Parcel II

- **CERCLA**

  - The FNBW Area is a CERCLA site partially within Parcel II (Figure 3). The sources of potential contamination within the FNBW Area were petroleum spills and leaks in the upland area, welding and grinding, and radiological releases. A human health and ecological risk assessment was conducted as part of the remedial investigation, which concluded there were no unacceptable health concerns (Tetra Tech EM Inc. [Tetra Tech] 2008). In addition, no impacts to groundwater were identified for the site. Thus, the Navy recommended NFA for the site under CERCLA in a proposed plan/draft remedial action plan in September 2009 (Navy 2009). The regulatory agencies concurred with the NFA recommendation, and the Navy documented the NFA decision in a final Record of Decision/Remedial Action Plan for Investigation Area (IA) A2 (Navy 2010a).

  - The fan of a former skeet range was partially located on Parcel II, though the majority of the former skeet range and fan were located on the adjacent Parcel XV-B(1) property (Figure 3). The skeet range was identified in the ordnance PA (PRC 1995b) and was not recommended for further action. A technical memorandum was prepared in 2001 (Navy 2001) based on samples conducted in the area of the skeet range, including portions of Parcel II. The technical memorandum concluded there was no indication the skeet range resulted in a release of contaminated materials; thus, no action was appropriate. DTSC concurred with the technical memorandum in 2002 (DTSC 2002a).

  - Three radiological sites (Buildings 589, 593, and 643) were indentified at Parcel II (Figure 3). Each of these sites was addressed under the Navy's radiological program, which addressed radioactive materials resulting from shipyard operations associated with both the general radioactive material (G-RAM) program and Naval Nuclear Propulsion Program (NNPP).

- Building 589 was used to store low-level radiological waste and was initially investigated under the radiological decommissioning G-RAM program (Navy 1996a). However, samples collected from Building 589 indicated the presence of cobalt-60, an isotope normally associated with the NNPP and the isotope was being addressed separately under the NNPP survey. Thus, Building 589 was also investigated under the NNPP study (Navy 1996b). Areas where elevated levels of radioactivity were identified were removed from the building. The Navy received NFA concurrence for Building 589 under both the G-RAM and NNPP surveys from DTSC, the Water Board, the California Department of Health Services (DHS), and EPA in March 1996 (DTSC, Water Board, and DHS 1996a,b; DTSC 1997; EPA 1996a,b).

- Building 593 was used for radium decontamination, nonnuclear waste storage area for low-level radioactive material, and repair and disposal of instruments or clocks that contained radioluminescent dials. Building 593 was investigated under the G-RAM survey in 1996 (Navy 1996a) and areas where elevated levels of radioactivity were identified were removed from the building. The Navy received NFA concurrence for Building 593 under the G-RAM survey from DTSC, the Water Board, the California DHS, and EPA in 1996 (DTSC, Water Board, and DHS 1996a; DTSC 1997; EPA 1996a).

- The former Building 643 was used as a radioactive liquid solidification facility and was surveyed as part of the NNPP study (Navy 1996b) based on its historical radiological use. Areas where elevated levels of radioactivity were identified were removed from the building. The Navy received NFA concurrence for Building 643 under the NNPP survey from DTSC, the Water Board, the California DHS, and EPA in March 1996 (DTSC, Water Board, and DHS 1996b; EPA 1996b).

- **RCRA**

  - RCRA sites identified within Parcel II include SWMU 2 and portions of SWMUs 93, 106, and 108. DTSC has provided a Corrective Action Complete Determination for Parcel II (as well as Parcels X-B[1], X-B[2], and the SSTP Outfall of Parcel I), which removes these areas from the RCRA facility boundary (Attachment 4). The Corrective Action Determination also concurs with the Navy's NFA recommendation. Each of the SWMUs that are located within Parcel II is described below.

    - SWMU 2 and a portion of SWMU 108 were associated with historical radiological activities conducted in Building 593. Though the PA/SI report assigned the SWMU 108 designation to multiple buildings at Mare Island (Buildings 91, 387, 593, 680, 742, 751, and 897), only Building 593 of SWMU 108 is located within Parcel II. Although Building 593 was initially assigned RCRA SWMU numbers for historical radiologic activities, the Navy conducted cleanup of all radiological impacts at Building 593 as part of the radiological program discussed under CERCLA above.

- Portions of SWMU 93, basewide storm sewer system, are located within Parcel II. An accelerated study was conducted in 1998 (Tetra Tech 1998) for Group II and III sites at Mare Island, which were potential sites identified during preliminary assessments and site investigations (Group II sites) or were identified as uninvestigated areas of possible contamination by the Navy, regulatory agencies, Restoration Advisory Board, or the EBS report (SSPORTS 1994) (Group III sites). Based on the conceptual model presented in the Group II/III accelerated study (Tetra Tech 1998), the storm sewer system in its entirety was excluded as a site requiring further investigation though catch basins would be selected for investigation if sampling was warranted. No concerns were identified for the storm sewer system during the remedial investigation of the FNBW Area.

- Portions of SWMU 106, basewide sanitary sewer system, are located within Parcel II. Based on the conceptual model presented in the Group II/III accelerated study (Tetra Tech 1998), potential contamination, if any, in the sanitary sewer system would collect at the sanitary sewer domestic pump stations (that is, "DOM sites"). The Navy sampled the two closest DOMs (DOM1 and DOM2) to Parcel II in 1998; sample results did not exceed screening criteria. The Navy received NFA concurrence for DOM1 and DOM2 from DTSC and EPA in May 2000 (DTSC 2000; EPA 2000). No further investigation of the sanitary system was necessary at Parcel II.

4.1.2 Parcels X-B(1) and X-B(2)

- **CERCLA**

  - The HSA overlaps with Parcel X-B(1) and is located in the adjacent WMA (see Figure 4). Abrasive blast material (ABM) or "greensand" was observed at the HSA during site visits on the earthen floor of Building A155 (which was physically located outside of Parcel X-B[1]). A removal action was conducted in October 2003 to excavate ABM from the HSA (Sullivan Consulting Group [Sullivan] and Tetra Tech 2005). An SI was conducted in 2005 following the removal action to determine the impacts to soil and groundwater at the HSA (Sullivan and Tetra Tech 2005). Based on the conclusions of the 2005 SI, no impacts to groundwater were identified, though an additional removal action for soil was recommended for the HSA (Sullivan and Tetra Tech 2005). A time-critical removal action (TCRA) was conducted in September 2008 at the HSA (Weston Solutions, Inc. [Weston] 2010a). No visible ABM remained at the HSA after the removal action. The TCRA results indicated that a NFA designation is appropriate for the small portion of the HSA within Parcel X-B(1) because confirmation samples indicate that all ABM-contaminated soil has been adequately removed (Weston 2010a). The Navy received NFA concurrence from DTSC regarding hazardous substances at Parcel X-B(1) in May 2010, including the small portion of the HSA within Parcel X-B(1) (DTSC 2010). The remainder of the HSA is not part of this FOST and will be closed out through a separate concurrence process for the WMA.

- Investigations within the WMA formerly overlapped with Parcels X-B(1) and X-B(2). The WMA was identified as a munitions area of concern in the ordnance PA (PRC 1995b). A munitions and explosives of concern (MEC) intrusive investigation was completed between 1997 and 1998 to investigate geophysical anomalies that had been identified during the MEC site investigation (SSPORTS 1998). Digital geophysical mapping (DGM) was conducted in 2006 and was followed by a DGM anomaly investigation (Weston 2006, 2008). All recovered munitions items were unfired and were therefore classified as discarded military munitions (DMM) that had been intentionally discarded (Weston 2009a). Surveys completed to date do not indicate the presence of MEC or material documented as safe (MDAS) on Parcels X-B(1) and X-B(2) (Weston 2010b); therefore, the Navy requested the parcels be removed from the WMA geographic footprint (Navy 2010b). The Navy received NFA concurrence from DTSC regarding MEC and MDAS for Parcels X-B(1) and X-B(2) (DTSC 2010).

- Ongoing remediation activities within the adjacent WMA may necessitate the imposition of explosive safety quantity distance (ESQD) arcs onto Parcels X-B(1) and X-B(2), which require temporary evacuation of the area. The ESQD arc is the prescribed minimum distance between a potential explosion site and an exposed site that is necessary to afford an acceptable degree of protection and safety. The nature of the ordnance found may require that an item be detonated in place, resulting in potential noise or air emissions hazards from which protection must be provided. ESQD arcs typically have a radius of 0.25 mile. If ESQD arcs are required for removal of ordnance at adjacent properties, the Navy retains the right to impose such arcs with appropriate prior notice to the City of Vallejo.

4.1.3 SSTP Outfall

- **CERCLA**

  - The SSTP Outfall, which is located in Parcel I, is not located within the boundaries of an IR site; however, CERCLA contaminants (metals and PCBs) were detected in sediment at the mouth of the outfall, and investigated. The sediment present within and adjacent to the SSTP Outfall was investigated to determine if there were any measurable impacts from the historical discharge (Roy F. Weston, Inc. 2002a). Following the RI, a feasibility study (Roy F. Weston, Inc. 2002b) and remedial action plan (RAP) (DTSC 2002b) were prepared to address elevated levels of metals and PCBs detected in sediment. No impacts to groundwater were identified for the site. Dredge excavations and off-site disposal of sediment were conducted in June 2002 (Roy F. Weston, Inc. 2002c). Elevated levels of contaminants remained in sediment, and the SSTP Outfall area was characterized further between 2003 and 2009 to confirm the presence of mercury and PCBs and to delineate the horizontal and vertical extent of mercury and PCBs within the SSTP Outfall. Based on the previous nature and extent characterization sampling, a removal action work plan (Weston 2009b) was developed to remove mercury-contaminated sediment. Additional dredging was performed in December 2009 adjacent to the SSTP Outfall discharge

pipe to remove mercury-contaminated sediment (Weston 2010c). The Navy submitted a final remedial action completion report for the SSTP Outfall to request NFA concurrence from the regulatory agencies (Weston 2010c). The Navy received NFA concurrence from DTSC and Water Board for the SSTP Outfall on May 27, 2010 (DTSC and Water Board 2010).

4.2 PETROLEUM PRODUCTS AND DERIVATIVES

No underground storage tanks (UST) or aboveground storage tanks exist on the parcels contained in this FOST. Petroleum releases from other sources are discussed below.

4.2.1 Parcel II

The Navy implemented a petroleum corrective action plan (PCAP) in April 2009 for 16 areas of petroleum-contaminated soil within Parcel II and for one area located adjacent to Parcel II (see Figure 3). A total of 3,378 cubic yards of soil was excavated and removed from the site (TN & Associates, Inc. 2009). Based on the results of the PCAP removal action, the Water Board provided NFA concurrence on October 29, 2009 (Water Board 2009a).

4.3 ASBESTOS-CONTAINING MATERIAL

It is DoD policy to manage ACM in a manner protective of human health and the environment, and to comply with all applicable federal, state, and local laws and regulations governing ACM hazards (DoD 1994). Therefore, unless it is determined by a competent authority that ACM on the property poses a threat to human health at the time of transfer, all property containing ACM will be conveyed, leased, or otherwise disposed "as is" through the BRAC process. If ACM in a building poses a threat to human health or the environment, occupation of the building will be prohibited until the ACM is abated or the building is demolished by a transferee. Remediation of ACM is not required in buildings that are scheduled for demolition by the transferee.

Hazardous materials in the form of asbestos or ACM have been found and are otherwise presumed to exist in buildings and structures in Parcels II, X-B(1), and X-B(2). All buildings within these parcels that were identified as containing asbestos in the 1996 survey were visually inspected again in 2004 as part of the SEBS (SulTech 2005) to determine if known ACM remained intact or if friable, accessible, or damaged asbestos was present as a result of changed building conditions. Information on the existence, extent, and condition of ACM at these buildings is provided in Table 4. The potential exists that ACM that was found to be intact at the time of the 2004 visual site inspection may have subsequently become friable, accessible, or damaged. In the event that friable, accessible, or damaged asbestos is discovered by the transferee, except for short-term and emergency maintenance, then access, use, or occupancy is prohibited until either (1) any necessary ACM abatement has been completed by the transferee, or (2) the building is demolished by the transferee, in accordance with all applicable local, state, and federal laws and other requirements relating to asbestos or ACM. Until abatement or demolition is complete, the transferee must manage the ACM in accordance with all applicable local, state, and federal laws and requirements.

4.3.1 Parcel II

Based on the 1996 Mare Island asbestos survey report, friable ACM was confirmed in Buildings 641, 797, and 825; nonfriable ACM was identified in Buildings 491, 589, 593, and 799 (Navy 1996c). No remediation was required for the buildings that contained nonfriable ACM. Abatement was performed in 1996 for the friable ACM in Buildings 641, 797, and 825 (SSPORTS 1999). The 2004 visual site inspection was conducted as part of the SEBS (SulTech 2005) and found accessible, damaged, and exposed friable asbestos in Building 797, located on the Fleet Reserve Pier. The Mare Island Caretaker Site Officer secured Building 797 and posted a notice that the building contains friable asbestos. No other buildings at Parcel II were found to contain accessible, damaged, or friable ACM hazards (SulTech 2005).

4.3.2 Parcels X-B(1) and X-B(2)

ACM was suspected in Building A172 in Parcel X-B(1) and Buildings A151 and A152 in Parcel X-B(2), though no remediation was required. During the 2004 visual site inspection conducted during the SEBS, no accessible, damaged, or friable ACM was identified in buildings located within Parcels X-B(1) and X-B(2) (SulTech 2005).

4.4 LEAD-BASED PAINT

Notifications of potential LBP at buildings within the FOST parcels are based on the age of construction (constructed before the Consumer Product Safety Commission's 1978 ban on LBP for residential use). The FOST parcels contain buildings that were constructed prior to 1978 and so may contain LBP. Through normal weathering and maintenance, there may be lead from LBP in the soil surrounding these buildings which the transferee would be required to abate in accordance with applicable laws and regulations. The construction dates for each of the buildings within the FOST parcels are summarized in Table 1. None of the buildings listed in Table 1 have been used for residential purposes.

Demolition of non-residential buildings constructed before 1978 creates the possibility that lead will be found in the soil as a result of these activities. If the transferee intends to demolish and redevelop for residential use after transfer of any non-residential buildings, the transferee may, under applicable law or regulation, be required by DTSC or other regulatory agencies to evaluate the soil adjacent to the non-residential buildings for the hazards of lead in soil. In addition, that transferee may be required to abate any hazards that may be present after the non-residential buildings are demolished and any newly constructed residential buildings can be occupied. Parcels II, X-B(1), and X-B(2) all contain buildings and are further discussed below.

4.4.1 Parcel II

Buildings 491, 589, 593, 641, 797, 799, and 825 are non-residential buildings that were constructed before 1978 (Table 1) and may contain LBP.

4.4.2 Parcels X-B(1) and X-B(2)

Buildings A149, A150, A151, A152, A166A, and A172 are non-residential buildings that were constructed before 1978 (Table 1) and may contain LBP.

4.5 POLYCHLORINATED BIPHENYLS

Active transformers located on the property were previously transferred by bill of sale to Island Energy in 2001 and therefore are not discussed further in this FOST. However, the potential for PCB spills from this equipment onto the FOST property from the transformers and closeout of those sites under the Toxic Substances Control Act (TSCA) are discussed below for Parcel II, which is the only FOST parcel that contains PCB sites.

4.5.1 Parcel II

Thirteen potential PCB sites were identified within Parcel II. These sites were identified based on the former or current presence of oil-filled transformers that may have leaked oil containing PCBs. The PCB sites included Buildings 589, 591, 593, 641, 643, and locations on the Fleet Reserve Pier (Building 799, grounded rocker arms [GRA] 53, 55, 63, 65, Building 797/GRA 51, Building 825/GRA 61, and Pier 55). No electrical equipment is located within Parcel II that contained PCBs at levels above TSCA regulated thresholds. The Navy requested regulatory closure for all 13 PCB sites located within Parcel II from EPA. The Navy received closure for Building 591 in February 2010 (EPA 2010a); Buildings 589, 641, and 643, Building 797/GRA 51, Building 825/GRA 61, GRA 53, GRA 63, GRA 65, and Pier 55 in June 2010 (EPA 2010b-j), and Buildings 593 and 799 and GRA 55 in August 2010 (EPA 2010k-n).

5.0 SUMMARY OF RESTRICTIONS

This section summarizes the restrictions, if any, associated with each of the FOST parcels related to CERCLA and RCRA sites, petroleum products and derivatives, ACM, LBP, and PCBs. These restrictions on certain activities ensure that post-transfer use of the FOST parcels is consistent with protection of human health and the environment.

No restrictions are required for the CERCLA, RCRA, petroleum products and derivatives, or PCB sites within the FOST parcels because NFA or regulatory concurrence was reached on each site for unrestricted use.

5.1 ASBESTOS-CONTAINING MATERIAL

The transferee will be required to comply with the specific restrictions listed below for ACM that has been identified within the parcels. Information on the existence, extent, and condition of ACM at buildings within Parcels II, X-B(1), and X-B(2) is provided in Table 4. Building 797 within Parcel II is the only building subject with a present condition that will require a restriction under this FOST; all other buildings were previously abated. In addition to the restrictions listed

below, in the event that friable, accessible, or damaged asbestos is discovered by the transferee in buildings not listed below, except for short-term and emergency maintenance, then access, use, or occupancy is prohibited until either (1) any necessary ACM abatement have been completed, or (2) the building is demolished by the transferee, in accordance with all applicable local, state, and federal laws and other requirements relating to asbestos or ACM. Until abatement or demolition is complete, the transferee must manage the ACM in accordance with all such applicable local, state, and federal laws and requirements.

5.1.1 Parcel II

Damaged and exposed friable ACM was identified in Building 797 during a visual site inspection (SulTech 2005). Except for short-term and emergency maintenance, access, use, or occupancy is prohibited until either (1) ACM surveys and any necessary ACM abatement have been completed, or (2) the building is demolished by the transferee, in accordance with all applicable local, state, and federal laws and other requirements relating to asbestos or ACM. Until abatement or demolition is complete, the transferee must manage the ACM in accordance with all such applicable local, state, and federal laws and requirements.

5.2 LEAD-BASED PAINT

In its use and occupancy of the property, including but not limited to demolition of buildings, structures, and facilities, and identification or evaluation of any LBP hazards, the transferee is responsible for managing LBP and LBP hazards in accordance with applicable local, state, and federal laws, and other requirements relating to LBP and LBP hazards for Parcels II, X-B(1), and X-B(2) as discussed below.

5.2.1 Parcel II

Buildings 491, 589, 593, 641, 797, 799, and 825 are non-residential and were constructed prior to 1978. Therefore, they may not be used for residential use or as child-occupied buildings unless the transferee performs any necessary evaluations and abatement in accordance with all local, state, and federal laws and other applicable requirements.

5.2.2 Parcels X-B(1) and X-B(2)

Buildings A151, A152, A166A, and A172 are non-residential and were constructed prior to 1978. Therefore, they may not be used for residential use or as child-occupied buildings unless the transferee performs any necessary evaluations and abatement in accordance with all local, state, and federal laws and other applicable requirements.

6.0 ADJACENT PROPERTIES

As shown on Figure 2, Parcel II is located north of the Eastern Early Transfer Parcel (EETP); The SSTP Outfall is surrounded by the boundary of the WETP; and Parcels X-B(1) and X-B(2) are located southwest of EETP and east of WETP. The following sections describe the properties adjacent to the four parcels in this FOST.

6.1 PARCEL II

There are several parcels located adjacent to Parcel II. Several of these parcels have environmental sites that are currently undergoing investigation or remediation. The adjacent properties and sites include:

- **Parcel IX**
  - **Investigation Area (IA) K.** IA K overlaps with a majority of the offshore property, Parcel IX, located east and immediately adjacent to Parcel II (Figure 3). IA K is currently undergoing a RI to evaluate impacts to the offshore property and stormwater outfall locations. Impacts to the offshore areas and outfall locations do not negatively impact Parcel II based on investigations conducted to-date and because Parcel II is upgradient to IA K.
- **Parcel XV-A(1):** This parcel was previously transferred from the Navy to the City of Vallejo (see Figure 3). There are no environmental sites within Parcel XV-A(1) that cause negative impacts to Parcel II because all environmental concerns have received regulatory agency closure.
- **Parcel XV-A(2):** This parcel was previously transferred from the Navy to the City of Vallejo (see Figure 3). There are no environmental sites within Parcel XV-A(2) that cause negative impacts to Parcel II because all environmental concerns have received regulatory agency closure.
- **Parcel XV-B(1)**
  - **Building 993.** The building is located about 300 feet west of Parcel II (located outside the frame shown in Figure 3). Four USTs were removed from the former Naval exchange gas station, but one UST site is still undergoing investigation. Based on investigations to-date, impacts to soil and groundwater at Building 993 do not negatively impact Parcel II based on the extent of known contamination and the upgradient location of Parcel II with respect to Building 993. Recent groundwater measurements conducted at Building 993 indicated the groundwater flow direction was to the west (Insight Environmental, Engineering and Construction, Inc. 2010) and is not flowing towards Parcel II. In addition the results of samples taken from monitoring wells located between Building 993 and Parcel II show no detections of chemicals above comparison criteria and indicate the plume is stable. Thus, impacts from the Building 993 property do not negatively impact Parcel II.

- **IR17 and Building 503 Area.** This site is located 440 feet west of Parcel II (located outside the frame shown in Figure 3). The site (a former paint manufacturing area) underwent a non-time critical removal action to remove residual coal tar distillates that were a potential continuing source of contamination in soil. Impacts from the IR17 and Building 503 Area do not negatively impact Parcel II based on the extent of known contamination and the upgradient location of Parcel II with respect to the IR17 and Building 503 Area.

- **Former Skeet Range.** The former skeet range was largely located on the Parcel XV-B(1) property adjacent to Parcel II, with a portion of the firing range fan area extending onto the Parcel II property (Figure 3). The skeet range was identified in the ordnance PA (PRC 1995b) and was not recommended for further action. A technical memorandum was prepared in 2001 (Navy 2001) based on samples conducted in the area of the skeet range, including portions of Parcel II. The technical memorandum concluded there was no indication the skeet range resulted in a release of contaminated materials, thus no action was appropriate. The DTSC concurred with the technical memorandum in 2002 (DTSC 2002a).

- **Parcel XXI-A(1):** This parcel was previously transferred from the Navy to the City of Vallejo, along with the appurtenant causeway (Figure 3). No environmental sites have been identified within Parcel XXI-A(1); thus, there are no negative impacts to Parcel II from adjacent Parcel XXI-A(1) or the appurtenant causeway.

- **EETP:** This parcel was previously transferred from the Navy to the City of Vallejo.

  - **IR03.** This site is located 300 feet south of Parcel II (located outside the frame shown in Figure 3). This area is a former petroleum refueling facility, which underwent a remedial action to remove separate-phase petroleum hydrocarbons in soil. Impacts from the IR03 area do not negatively impact Parcel II based on the extent of known contamination and the upgradient location of Parcel II with respect to IR03.

  - **IR07/20.** This site is located 310 feet south of Parcel II (located outside the frame shown in Figure 3). A removal action for soil and groundwater was conducted at the former pretreatment plant and acid mixing facility. Regulatory agencies have concurred with NFA for the site, though additional groundwater monitoring was recommended (DTSC 2009; Water Board 2009b). Impacts from IR07/20 do not negatively impact Parcel II based on the extent of known contamination and the upgradient location of Parcel II with respect to the IR07/20.

  - **DOM3.** This site is located 280 feet south of Parcel II (located outside the frame shown in Figure 3). Remediation of the former domestic sanitary sewer pump station site has been conducted and groundwater monitoring is ongoing. However, impacts from the DOM3 area do not negatively impact Parcel II based on the extent of known contamination and the upgradient location of Parcel II with respect to DOM3.

- **Non-Navy Property North of Parcel II:** The property north of Parcel II (Figure 3) was used by the California Department of Transportation (Caltrans) as a touch down area for the Highway 37 bridge that spans over the Mare Island Strait. During the 2005 SEBS (SulTech 2005), an environmental baseline survey was conducted for Navy Parcel XV-B(2) that is adjacent to the non-Navy property. According to the database search, no environmental sites were identified on the non-Navy property (SulTech 2005). Based on the database search in 2005, and that environmental sites have not been identified on the property and site conditions are unchanged since the 2005 SEBS, there are no negative impacts to Parcel II from the non-Navy property.

6.2 PARCELS X-B(1) AND X-B(2)

Three properties adjacent to Parcels X-B(1) and X-B(2) were reviewed. These sites include:

- **Parcels I and VII-B:** Portions of the following sites overlap both Parcels I and VII-B.
  - **Western Magazine Area.** An MRP site located west of and immediately adjacent to Parcels X-B(1) and X-B(2). These two FOST parcels were formerly located within the geographic footprint of the WMA, but no MEC was identified during a visual survey of the parcels (Weston 2010b). The Navy requested the parcels be removed from the WMA geographic footprint (Navy 2010b). The Navy received NFA concurrence from DTSC regarding MEC and MDAS for Parcels X-B(1) and X-B(2) (DTSC 2010). Recovered munitions items identified during previous investigations at the WMA were unfired and were classified as DMM that had been intentionally discarded (Weston 2009a). The WMA is not considered to negatively impact Parcels X-B(1) and X-B(2) as the intrusive investigations and removal actions are complete; the concern, DMM, is not mobile; and the parcels are upgradient from the WMA. As discussed in Section 4.1.2, the Navy will coordinate with the City of Vallejo to clear the appropriate property during applicable remediation activities conducted in the WMA.

    The Navy requested NFA concurrence on removal actions completed within the portion of the HSA located within Parcel X-B(1). The Navy received NFA concurrence from DTSC for hazardous materials within Parcel X-B(1) (DTSC 2010). For the adjacent portions of the HSA, samples with detections of metals in soil above ecological screening criteria necessitate the portion of the HSA located within the WMA be further characterized in an RI. Based on the investigations and removal actions completed to date, the HSA within the WMA does not negatively impact adjacent Parcels X-B(1) and X-B(2).
  - **IR05.** This site is located 1,170 feet south of Parcels X-B(1) and X-B(2). Recovered munitions items were located at an apparent disposal area in the northeastern corner of the site (Weston 2009a). IR05 is considered to have very low potential for exposure to remaining MEC items because the recovered munitions items were unfired and are classified as DMM. The IR05 is not considered to negatively impact Parcels X-B(1) and X-B(2) as the intrusive investigations and removal actions are complete and the parcels are upgradient from the ongoing environmental site.

In addition, a TCRA was conducted for the IR05 area to remove metals in upland soil and wetland sediment that were detected above ecological screening criteria. Approximately 33,000 cubic yards of soil were removed during the TCRA. During the excavation, the soil and sediment were surveyed for MEC anomalies and items were removed.

- **Parcel X:** This parcel was previously transferred from the Navy to the City of Vallejo. Parcel X (golf course) covers approximately 171 acres at the southern end of Mare Island (Figure 4). There are no environmental sites within Parcel X that cause negative impacts to Parcels X-B(1) and X-B(2) because all environmental concerns have received regulatory agency closure.

- **Parcel X-B(3)**

  - Parcel X-B(3) is located adjacent to the WMA and south of Parcel X-B(2). Surveys completed to date for Parcel X-B(3) do not indicate the presence of MEC or MDAS (Weston 2010b); therefore, the Navy requested the parcel be removed from the WMA geographic footprint (Navy 2010b). The Navy received NFA concurrence from DTSC regarding MEC and MDAS for Parcel X-B(3) (DTSC 2010).

    Building A-149 (a former magazine located in this parcel) is currently being used to store radiological items that will be transported offsite for disposal. Impacts from Building A-149 do not negatively impact Parcels X-B(1) and X-B(2) because the radiological items are appropriately contained and are secured.

6.3 SSTP OUTFALL

- **Parcel I**

  - The SSTP Outfall is bounded on all sides by a tidal wetland that was transferred as part of the WETP. A RAP (DTSC 2002b) was developed for the submerged lands area of Parcel I, however the SSTP Outfall area was the main focus of the RAP for the submerged lands. No environmental sites were identified within the submerged lands that cause negative impacts to the SSTP Outfall.

7.0 COVENANTS

The deed for transfer of any property on which "any hazardous substance was stored for one year or more, [or] known to have been released, or disposed..." as a result of former activities conducted by the U.S. will include a covenant made pursuant to CERCLA § 120(h)(3)(A)(ii) and (B). The covenant will warrant that "all remedial action necessary to protect human health and the environment with respect to any hazardous substance identified pursuant to § 120(h)(3)(A)(i)(I) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 remaining on the property has been taken before the date of this deed" and that "any additional remedial action found to be necessary after the date of such transfer shall be conducted by the United States." This covenant will not apply to any remedial action required on the FOST parcels that is the result of an act or omission of the transferee that causes a new release of hazardous substances.

8.0 ACCESS CLAUSE

The deed will reserve and the transferee shall grant to the U.S. (Navy and EPA) access to the property pursuant to CERCLA § 120(h)(3)(A)(iii). DTSC, the Water Board, EPA, and their successors and assigns will also be granted access to the property to enter the FOST parcels in any case when remedial action or corrective action is found to be necessary on the FOST parcels after the date of transfer. In addition, the deed will provide for a right of access for the U.S. to traverse property owned by the transferee to gain access to property still owned by the U.S.

9.0 FINDING OF SUITABILITY TO TRANSFER STATEMENT

Based on the information contained in this FOST and the notices, restrictions, and covenants that will be contained in the deeds, Parcels II, X-B(1), X-B(2) and the SSTP Outfall at the former Mare Island Naval Shipyard are suitable for transfer.

Signature: Laura Duchnak Date: 9/21/10

Ms. Laura Duchnak
Director
Base Realignment and Closure Program Management Office West
Department of the Navy

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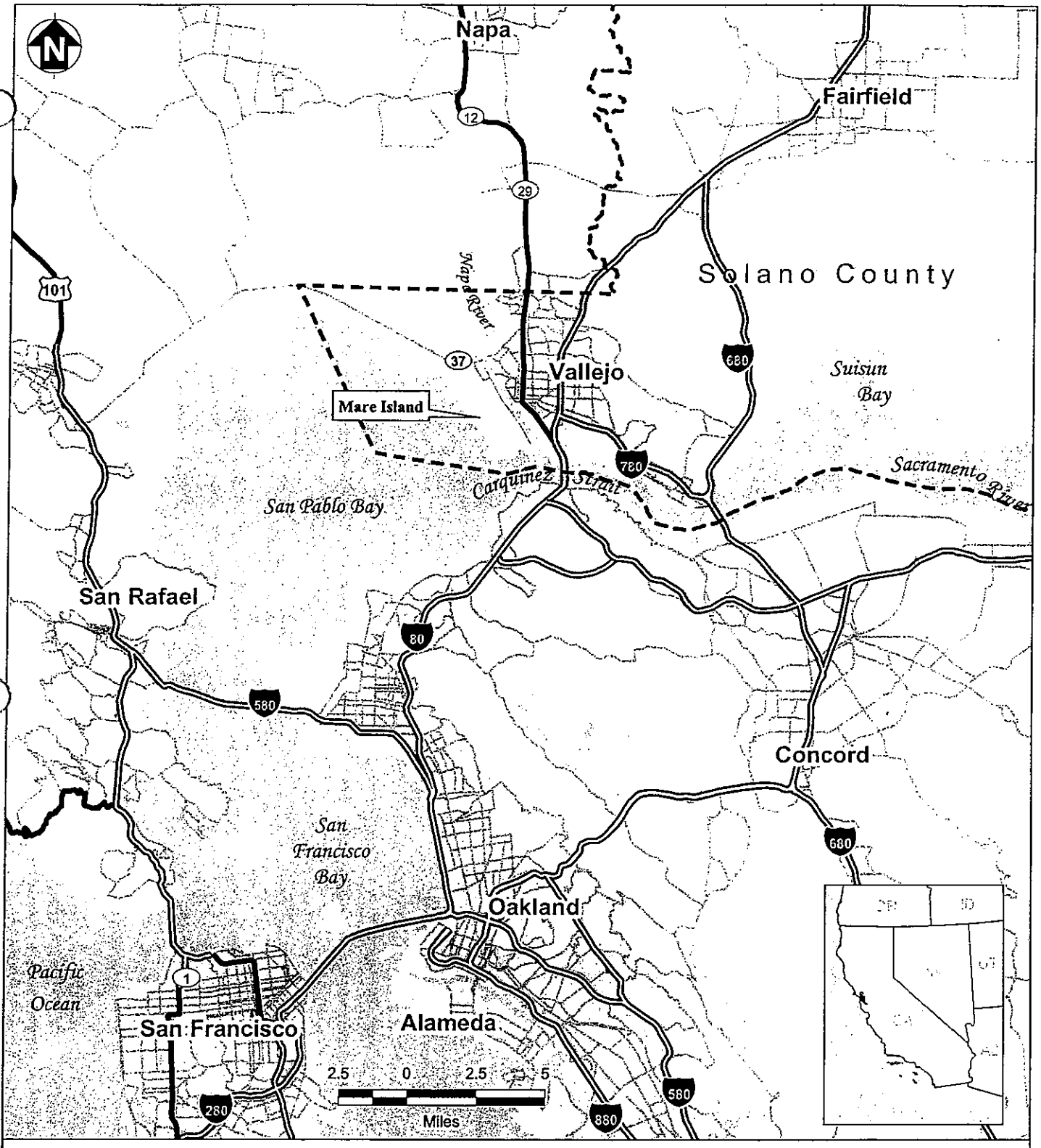
FIGURES



Solano County Boundary
Mare Island
Urban Area*

Interstate
Highway
Major Road

Note:
* Darker shading indicates greater population density.

ChaduxTt JV

Former Mare Island Naval Shipyard, California
Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 1

LOCATION MAP

Final Finding of Suitability to Transfer
September 2010

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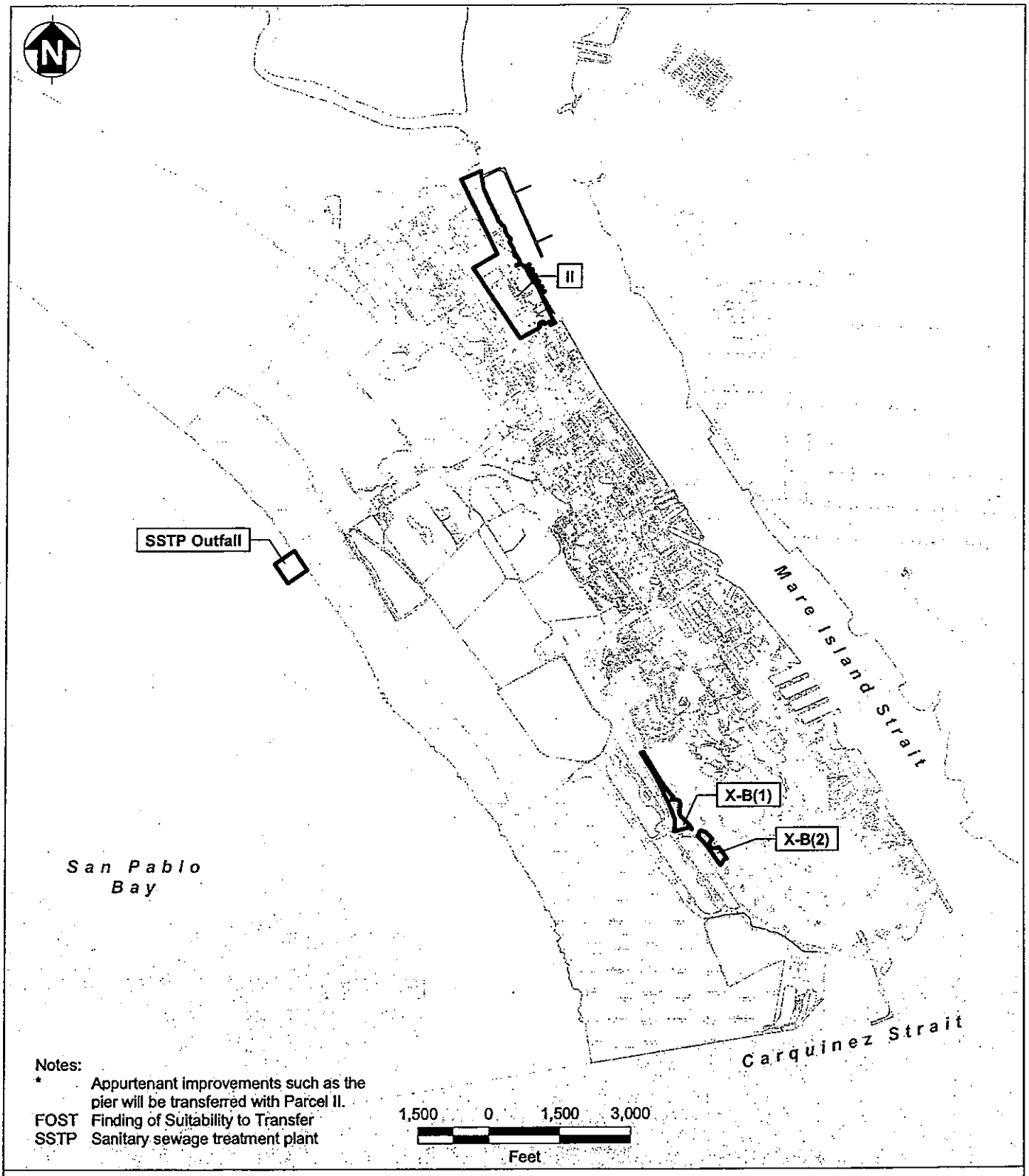

ChaduxTt JV

Former Mare Island Naval Shipyard, California
Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 2

PARCELS SUBJECT TO THE FINDING OF SUITABILITY TO TRANSFER

Final Finding of Suitability to Transfer
September 2010

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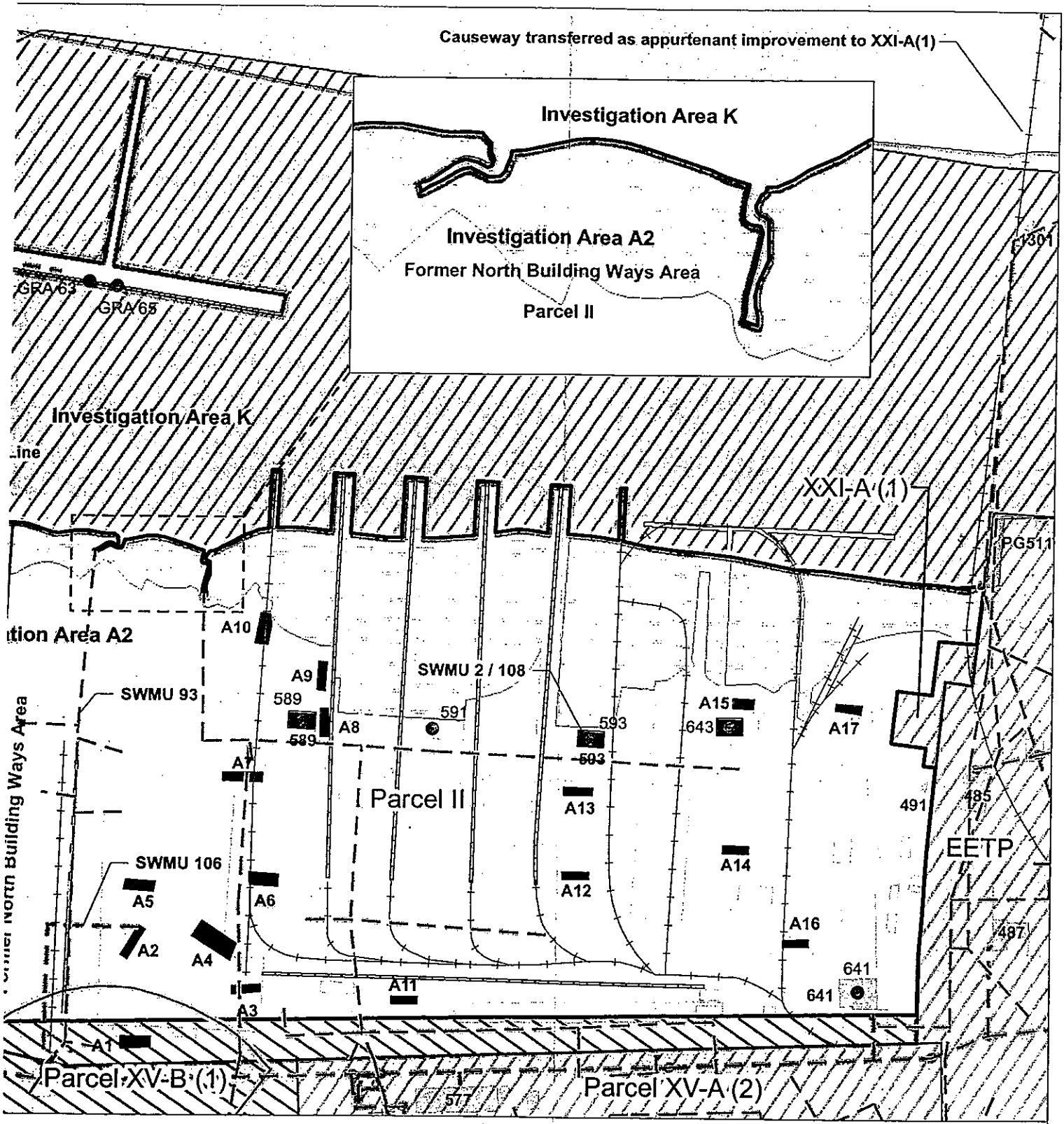

ure — Sanitary Sewer System (SWMU 106)

— — Storm Water System (SWMU 93)

● PCB SITE

Railroad

Crane Track

577 Building Number

Notes:

* Appurtenant improvements such as the pier will be transferred with Parcel II.

EETP Eastern Early Transfer Parcel
FOST Finding of Suitability to Transfer
GRA Grounded rocker arm
PCB Polychlorinated biphenyl
SWMU Solid waste management unit
TPH Total petroleum hydrocarbons

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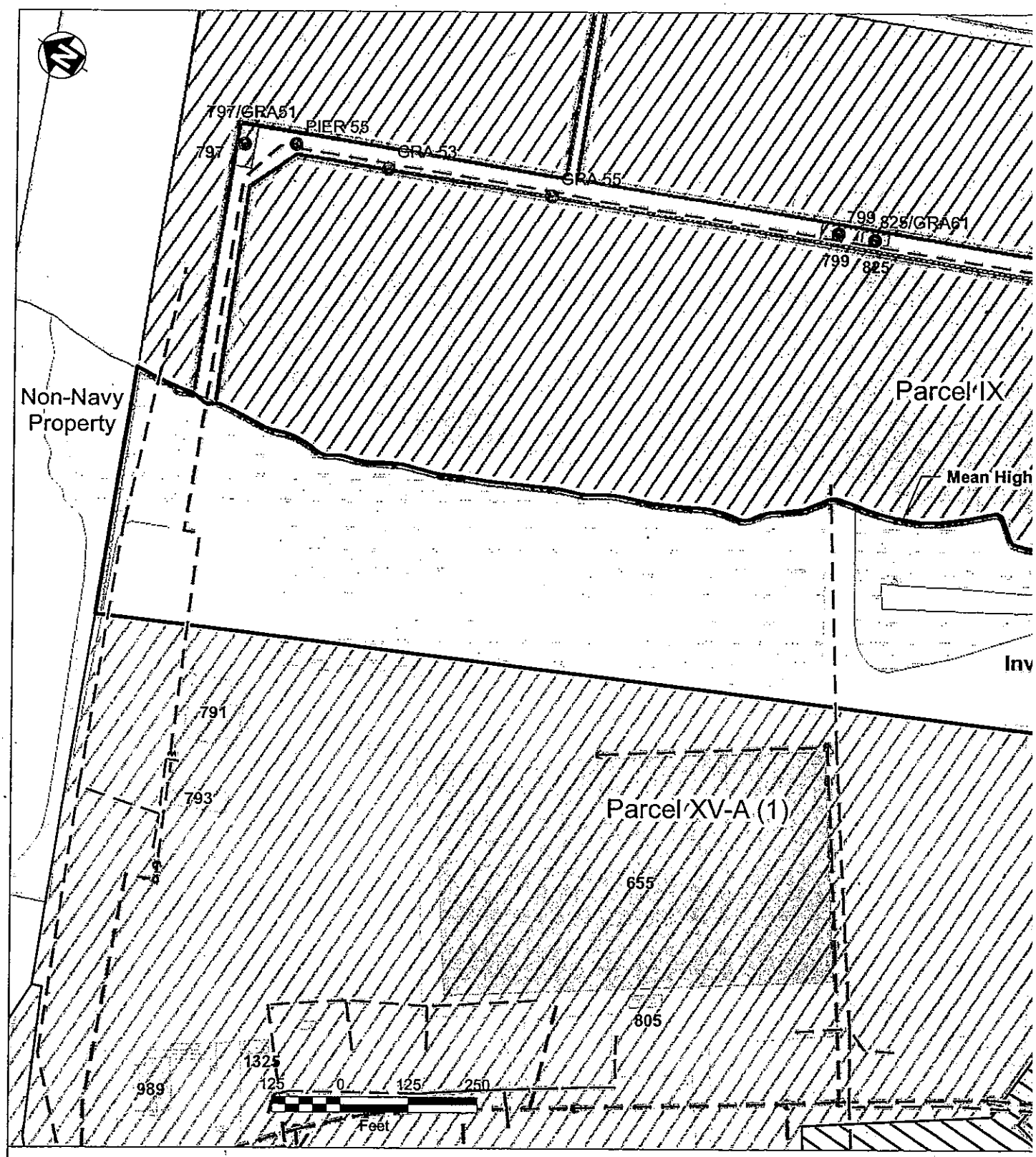
Former Mare Island Naval Shipyard, California

Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 3

PARCEL II DETAIL MAP

Final Finding of Suitability to Transfer
September 2010



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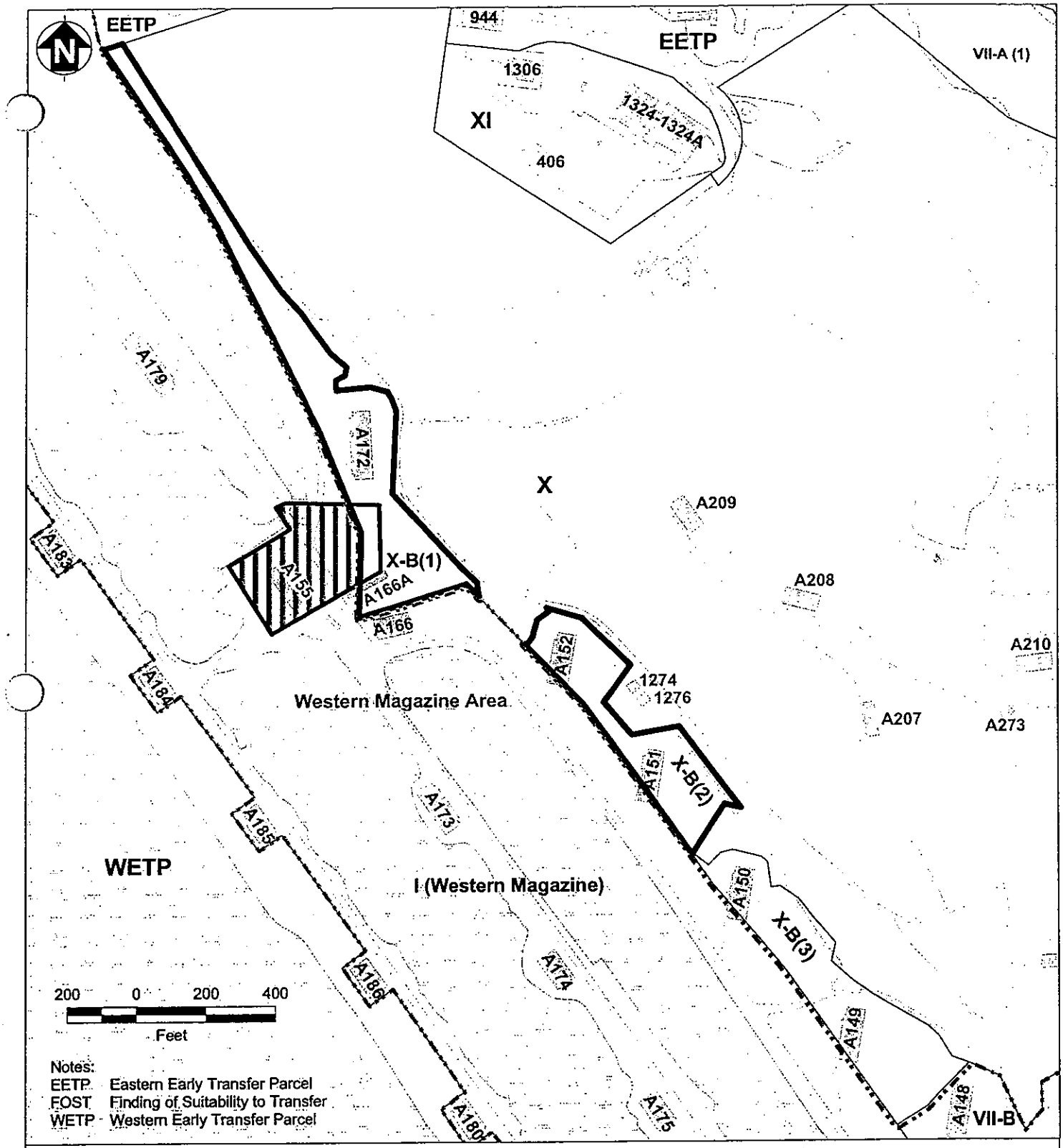

ChaduxTt JV

Former Mare Island Naval Shipyard, California

Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 4
PARCELS X-B(1) AND X-B(2)
DETAIL MAP

Final Finding of Suitability to Transfer
September 2010

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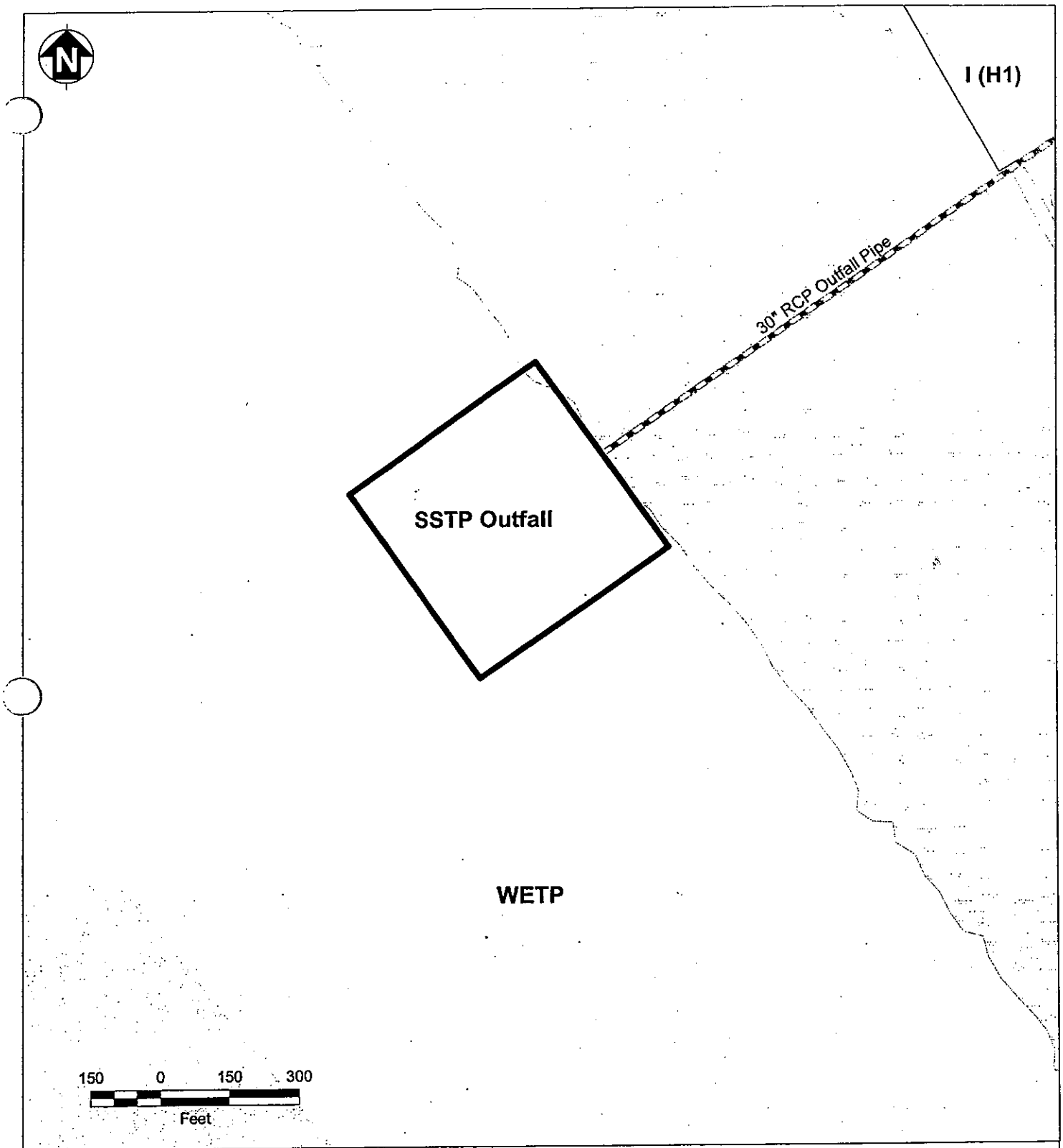

Outfall Pipe
Parcel Subject to the FOST
Other Parcel Boundary
Wetland
Mudflat
Water

Notes:
FOST Finding of Suitability to Transfer
RCP Reinforced concrete pipe
SSTP Sanitary sewage treatment plant
WETP Western Early Transfer Parcel

ChaduxTt JV
Consulting Engineers and Scientists

Former Mare Island Naval Shipyard, California
Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 5

SSTP OUTFALL DETAIL MAP

Final Finding of Suitability to Transfer
September 2010

2010-09-10 v:\mare island\projects\056_a2_x-b_outfall_fost\figure_5_sstp.mxd TtEMI-AL simon.cardinale

TABLES

TABLE 1: BUILDINGS AND STRUCTURES

Parcel Number	Building Number	Former Use/Description	Construction Materials	Square Footage	Year Built
II	491	Sentry House / Phone Switch	Concrete	71	1936
	589	Storage	Concrete	2,842	1942
	593	Electrical Distribution Center	Concrete	2,848	1942
	641	North Fire Station	Concrete, Wood, Steel on Concrete	5,284	1941
	797	Pump House and Electrical Distribution Center	Reinforced Concrete	2,137	1941
	799	Electrical Distribution Station and Public Works Center Work Area	Metal	1,481	1946
	825	Boat House	Wood, Corrugated Metal, Concrete	1,868	1951
X-B(1)	A172	Magazine	Reinforced Concrete	9,950	1938
	A166A [a]	Barn/Stable	Unknown	3,500	Unknown
X-B(2)	A151 [a]	Magazine	Reinforced Concrete	7,701	1931
	A152 [a]	Magazine	Reinforced Concrete	7,701	1931

Note:

a Building is partially included within the transfer boundary.

Source:

Supervisor of Shipbuilding, Conversion, and Repair, Portsmouth, Virginia, Environmental Detachment, Vallejo (SSPORTS). 1994. "Basewide Environmental Baseline Survey/Community Environmental Response Facilitation Act Report for Mare Island Naval Shipyard, Vallejo, California." December 15.

TABLE 2: ENVIRONMENTAL FACTORS CONSIDERED

Environmental Factors Considered	Applicable to the Parcels		
	Parcel II	Parcels X-B(1) and X-B(2)	SSTP Outfall of Parcel I
Presence of Hazardous Substances	Y	Y	Y
CERCLA/RCRA	Y	Y	Y
Presence of Petroleum Products and Derivatives	Y	N	N
UST and AST	N	N	N
Munitions and Explosives of Concern	N	Y	N
Asbestos-Containing Material	Y	Y	N
Lead-Based Paint	Y	Y	N
Polychlorinated Biphenyls	Y	N	N [a]

Notes:

a Polychlorinated biphenyls at the SSTP Outfall were addressed under a CERCLA response.

AST Aboveground storage tank
CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
N No
RCRA Resource Conservation and Recovery Act
SSTP Sanitary Sewage Treatment Plant
UST Underground storage tank
Y Yes

TABLE 3: SITE CLOSURE ACTIONS

Parcel Number	Program	Site Name	Closure Action	Site Closure Year
II	CERCLA	FNBW Area	None necessary; no unacceptable risk to human health or the environment was identified in the RI (Tetra Tech 2008). Thus, a no action ROD/RAP was developed for IA A2, which includes the FNBW site (Navy 2010a). The DTSC, Water Board, and EPA concurred with the no action decision in the ROD/RAP (Navy 2010a).	August 2010
		Former Skeet Range	The fan of a former skeet range was partially located on Parcel II, though the majority of the former skeet range and fan were located on the adjacent Parcel XV-B(1) property. The skeet range was identified in the ordnance PA (PRC 1995b) and was not recommended for further action. A technical memorandum was prepared in 2001 (Navy 2001) and concluded there was no indication the skeet range resulted in a release of contaminated materials; thus, no action was appropriate. DTSC concurred with the technical memorandum in 2002 (DTSC 2002b).	February 2002
		Building 589	A radiological decommissioning survey was completed at Building 589 as part of the G-RAM study (Navy 1996a) and NNPP study (Navy 1996b). Areas inside of Building 589 and tunnels beneath exhibited elevated levels of radioactivity. The materials were removed from the building and tunnel surfaces. DTSC, Water Board, DHS, and EPA provided a closure letter with a finding of NFA for radioactivity at the Building 589 site to the Navy for both the G-RAM and NNPP surveys (DTSC, Water Board, and DHS 1996a,b; DTSC 1997; EPA 1996a,b).	March 1996
		Building 593	A radiological decommissioning survey was completed at Building 593 as part of the G-RAM study (Navy 1996a). Soil outside of Building 593 that exhibited elevated levels of radioactivity was removed. In addition, a portion of the concrete inside of the building was removed. DTSC, Water Board, DHS, and EPA provided a closure letter with a finding of NFA for radioactivity at the Building 593 site to the Navy (DTSC, Water Board, and DHS 1996a; DTSC 1997; EPA 1996a).	March 1996
		Building 643	Former Building 643 was used as a radioactive liquid solidification facility and was included in the 1996 basewide NNPP survey. Based on the 1996 survey, no radioactivity above NNPP limits remains at Building 643 (Navy 1996b). The Navy received NFA concurrence for Building 643 from DTSC, Water Board, DHS, and EPA in March 1996 (DTSC, Water Board, and DHS 1996b; EPA 1996b). Building 643 was demolished in 2009 during abatement of PCBs.	March 1996

TABLE 3: SITE CLOSURE ACTIONS (CONTINUED)

Parcel Number	Program	Site Name	Closure Action	Site Closure Year
II (cont'd)	RCRA	SWMU 2, Building 593	Building 593 was designated as SWMUs 2 and 108 because of historic radiological activities conducted at the building. The Navy conducted radiological surveys and remediation under a separate radiological program under CERCLA (see the discussion for Building 593 above). The Navy received NFA closure of SWMU 2 and portions of SWMU108 that are located within Parcel II from DTSC as part of the RCRA Corrective Action Complete Determination included in Attachment 4.	September 2010
		SWMU 108, Building 593		
		SWMU 93, Storm Sewer System	Portions of SWMU 93, storm sewer system, are located within Parcel II. Based on the conceptual model presented in the Group II/III accelerated study (Tetra Tech 1998), the storm sewer system in its entirety was excluded as a site requiring further investigation though catch basins would be selected for investigation if sampling was warranted. No concerns were identified for the storm sewer system during the remedial investigation of the FNBW Area. The Navy received NFA closure for portions of SWMU 93 that are located within Parcel II from DTSC as part of the RCRA Corrective Action Complete Determination included in Attachment 4.	September 2010
		SWMU 106, Sanitary Sewer System	Portions of SWMU 106, sanitary sewer system, are located within Parcel II. Based on the conceptual model presented in the Group II/III accelerated study (Tetra Tech 1998), DOMs were sampled to determine if further investigation of the sanitary sewer system was necessary. The Navy sampled the two closest DOMs (DOM1 and DOM2) to Parcel II in 1998; sample results did not exceed screening criteria. The Navy received NFA concurrence for DOM1 and DOM2 from DTSC and EPA in May 2000 (DTSC 2000; EPA 2000). No further investigation of the sanitary system was necessary at Parcel II. The Navy received NFA closure for portions of SWMU 106 that are located within Parcel II from DTSC as part of the RCRA Corrective Action Complete Determination included in Attachment 4.	September 2010
	Petroleum	FNBW Area	A PCAP was prepared to address soils at 17 locations (of which, 16 locations are within Parcel II) containing TPH at concentrations exceeding the screening criterion of 1,000 mg/kg (TN & Associates, Inc. 2009). Implementation of the PCAP consisted of the excavation and removal of 3,378 cubic yards of TPH impacted soil from depths of up to 3 feet bgs. The impacted soils were sent off-site for disposal, confirmation sampling was performed, and the excavations were backfilled with imported borrow fill. The Water Board provided a closure letter with a finding of NFA for TPH at IA A2 (Water Board 2009a).	October 2009

TABLE 3: SITE CLOSURE ACTIONS (CONTINUED)

Parcel Number	Program	Site Name	Closure Action	Site Closure Year
II (cont'd)	PCBs	Building 589	This site was identified as an area where a PCB spill may have occurred. Investigations supported a finding that no PCB spills or leaks have been reported or identified and the Navy requested EPA concurrence to site closure for the potential PCB spill site through the Self-Implementing Program (SulTech 2009). In addition, potential PCB-containing cable insulation was identified in cut-off electrical conduit and subsequently closed in-place. EPA concurred with NFA for this site (EPA 2010g).	June 2010
		Building 591	The walls of Building 591 have been demolished. Four concrete screening samples were collected at the demolished Building 591 in April 1997; PCBs were not detected in any of these samples. EPA concurred with NFA for this site (EPA 2010a).	February 2010
		Building 593	Two former PCB transformers, including one (T-1204) reported as leaking, were documented in historical records for Building 593. One concrete sample contained PCBs. Abatement by concrete scabbling was conducted where PCBs were detected. EPA concurred with NFA for this site (EPA 2010k,l).	August 2010
		Building 641	The site is a former fire station within the FNBW Area. Two inactive transformers (T-710 and T-715) that contain PCB oils are located in the area of Building 641. PCBs were detected in samples near Building 641; however, they were below the TSCA screening level. In addition, potential PCB-containing cable insulation was identified in cut-off electrical conduit and subsequently closed in-place. EPA concurred with NFA for this site (EPA 2010h).	June 2010
		Building 643	The site is a former electrical substation. The Navy removed soil that exceeded the TSCA screening level at Building 643 during sampling and abatement activities. During abatement in 2009, the building was demolished. EPA concurred with NFA for this site (EPA 2010i).	June 2010
		Building 799	Building 799 is located on the FRP. Transformers and electrical cables, including electrical equipment known to contain PCBs, were located at the site. Abatement was conducted on the vault lid (foundation floor). EPA concurred with NFA for this site (EPA 2010m).	August 2010
		GRA 53	GRA 53 was formerly located approximately 290 feet southeast of Building 797 on the FRP. Abatement was conducted on the concrete. In addition, liquid and solid residues from the interior surfaces of the vault were removed. EPA concurred with NFA for this site (EPA 2010d).	June 2010

TABLE 3: SITE CLOSURE ACTIONS (CONTINUED)

Parcel Number	Program	Site Name	Closure Action	Site Closure Year
II (cont'd)	PCBs (cont'd)	GRA 55	Building history indicates that GRA 55 was associated with an adjacent load control center that housed four transformers on the FRP. PCB contamination above 1 ppm was documented on the load control center pad and in the subsurface vault associated with GRA 55 and the load center. There were two AOCs at the GRA 55/load control center. AOC 1 consisted of the concrete slab where the three former transformers were removed and the concrete pier surface in the area where former GRA 55 was located. AOC 2 consisted of the electrical vault and vault contents. In addition, potential PCB-containing cable insulation was identified in cut-off electrical conduit and subsequently closed in-place. EPA concurred with NFA for this site (EPA 2010n).	August 2010
		GRA 63	GRA 63 is located on the FRP. The concrete pier deck at the site was characterized and PCBs were not detected above the TSCA screening level. Liquid and solid residues were removed from the vault and cleaned with an alkaline surfactant. EPA concurred with NFA for this site (EPA 2010e).	June 2010
		GRA 65	GRA 65 is located on the FRP. Two AOCs were identified for GRA 65. AOC 1 is concrete around the load control center, which was scabbled during abatement. AOC 2 is a vault that sampled and subsequently abated. EPA concurred with NFA for this site (EPA 2010j).	June 2010
		Building 797/ GRA 51	Building 797 and GRA 51 are located on the FRP. Five PCB screening solid samples of cable insulation were collected inside Building 797. Electrical equipment and the concrete transformer slab were subsequently removed. Confirmation samples collected indicated the maximum PCB concentration was below the TSCA screening level. EPA concurred with NFA for this site (EPA 2010b).	June 2010
		Building 825/ GRA 61	Building 825 and GRA 61 are located on the FRP. GRA 61 is documented to have contained PCBs. The loose soil on the rocker arm pad at GRA 61 was removed and concrete samples at the rocker arm pad were below the TSCA screening level. EPA concurred with NFA for this site (EPA 2010c).	June 2010
		Pier 55	Pier 55 is located on the FRP. PCBs above 1 ppm were identified in vault "residue" at two manhole locations. Liquid and solid residues from vaults were removed and cleaned with an alkaline surfactant. EPA concurred with NFA for this site (EPA 2010f).	June 2010

TABLE 3: SITE CLOSURE ACTIONS (CONTINUED)

Parcel Number	Program	Site Name	Closure Action	Site Closure Year
X-B(1) and X-B(2)	CERCLA	WMA (Horse Stables Area [HSA])	A TCRA was conducted in September 2008 at the HSA (Weston 2010a). No visible ABM remained at the HSA after the removal action. The TCRA results indicated that a NFA designation is appropriate for the small portion of the HSA within Parcel X-B(1) because confirmation samples indicate that all ABM-contaminated soil has been adequately removed (Weston 2010a). The Navy received NFA concurrence from DTSC regarding hazardous substances at Parcel X-B(1) in May 2010, including the small portion of the HSA within Parcel X-B(1) (DTSC 2010). The remainder of the HSA is not part of this FOST and will be closed out through a separate concurrence process for the WMA.	May 2010
		WMA	A UXO intrusive investigation was completed between 1997 and 1998 to investigate geophysical anomalies that had been identified during the UXO site investigation of the WMA (SSPORTS 1998). DGM was conducted in 2006 and was followed by a DGM anomaly investigation (Weston 2006, 2008). All recovered munitions items were unfired and were classified as DMM that had been intentionally discarded (Weston 2009a). Surveys completed to-date do not indicate the presence of MEC on Parcels X-B(1) and X-B(2); therefore, the parcels were removed from the WMA footprint (Weston 2010b). The Navy requested NFA concurrence on the visual survey for MEC at Parcels X-B(1) and X-B(2) (Navy 2010b). The Navy received NFA concurrence from DTSC regarding MEC and MDAS for Parcels X-B(1) and X-B(2) (DTSC 2010).	May 2010
I	CERCLA	SSTP Outfall	Elevated levels of contaminants were detected in sediment at the SSTP Outfall in 2002, which led to further characterization between 2003 and 2009 to delineate the horizontal and vertical extent of mercury and PCBs within the SSTP Outfall. Based on the previous nature and extent characterization sampling, additional dredging was performed in December 2009 adjacent to the SSTP Outfall discharge pipe to remove mercury-contaminated sediment (Weston 2010c). The Navy submitted a final Remedial Action Completion Report for the SSTP Outfall to request NFA concurrence from the regulatory agencies in May 2010 (Weston 2010c), and received concurrence from the DTSC and Water Board on May 27, 2010 (DTSC and Water Board 2010).	May 2010

Notes:

ABM	Abrasive blast material	DOM	Domestic pump station
AOC	Area of concern	DTSC	Department of Toxic Substances Control
bgs	Below ground surface	EPA	U.S. Environmental Protection Agency
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	FNBW	Former North Building Ways
		FRP	Fleet Reserve Pier
DGM	Digital geophysical mapping	GRA	Grounded rocker arm
DHS	Department of Health Services	G-RAM	General radioactive material
DMM	Discarded military munitions	HSA	Horse Stables Area

TABLE 3: SITE CLOSURE ACTIONS (CONTINUED)

IA	Investigation area
MDAS	Material documented as safe
MEC	Munitions and explosives of concern
mg/kg	Milligram per kilogram
Navy	Department of the Navy
NFA	No further action
NNPP	Naval Nuclear Propulsion Program
PA	Preliminary assessment
PCAP	Petroleum corrective action plan
PCB	Polychlorinated biphenyl
ppm	Parts per million
PRC	PRC Environmental Management Inc.
RAP	Remedial action plan
RCRA	Resource Conservation and Recovery Act
RI	Remedial investigation
ROD	Record of decision
SSPORTS	Supervisor of Shipbuilding, Conversion, and Repair, Portsmouth, Virginia, Environmental Detachment, Vallejo
SSTP	Sanitary Sewage Treatment Plant
SWMU	Solid waste management unit
TCRA	Time-critical removal action
Tetra Tech	Tetra Tech EM Inc.
TPH	Total petroleum hydrocarbons
TSCA	Toxic Substances Control Act
UXO	Unexploded ordnance
Water Board	San Francisco Bay Regional Water Quality Control Board
Weston	Weston Solutions, Inc.
WMA	Western Magazine Area

Sources:

California Environmental Protection Agency's Department of Toxic Substances Control (DTSC), San Francisco Bay Regional Water Quality Control Board (Water Board), and California Department of Health Services (DHS). 1996a. Letter Regarding the "Mare Island Naval Shipyard (Mare Island) Final Release Report, General Radioactive Material (G-RAM) Radiological Survey Plan, Volumes 1 and 2, Dated 3/28/1996, and with Change Pages Received 3/29/96." From Chip Gribble, DTSC, to Robert. D. O'Brien, Radiological Control Office, Mare Island. March 29.

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TABLE 3: SITE CLOSURE ACTIONS (CONTINUED)

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___. 2010b. Concurrence Letter Regarding Final Closure Report for Building 797 and Grounded Rocker Arm (GRA) 51 PCB Site in IA A2, Mare Island, Vallejo, California. From Mr. Michael Montgomery, Assistant Director, Federal Facility and Site Branch Cleanup, to Mr. Anthony Megliola, Department of the Navy. June 7.

___. 2010c. Concurrence Letter Regarding Final Closure Report for Building 825 and GRA 61 PCB Site in IA A2, Mare Island, Vallejo, California. From Mr. Mike Montgomery, Assistant Director, Federal Facility and Site Branch Cleanup, to Mr. Anthony Megliola, Department of the Navy. June 7.

___. 2010d. Concurrence Letter Regarding Final Closure Report for GRA 53 PCB Site in IA A2, Mare Island, Vallejo, California. From Mr. Michael Montgomery, Assistant Director, Federal Facility and Site Branch Cleanup, to Mr. Anthony Megliola, Department of the Navy. June 7.

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___. 2010g. Concurrence Letter Regarding Revised Final Closure Report for Building 589 PCB Site in IA A2, Mare Island, Vallejo, California. From Mr. Michael Montgomery, Assistant Director, Federal Facility and Site Branch Cleanup, to Mr. Anthony Megliola, Department of the Navy. June 18.

___. 2010h. Concurrence Letter Regarding Revised Final Closure Report for Building 641 PCB Site in IA A2, Mare Island, Vallejo, California. From Mr. Michael Montgomery, Assistant Director, Federal Facility and Site Branch Cleanup, to Mr. Anthony Megliola, Department of the Navy. June 18.

___. 2010i. Concurrence Letter Regarding Final Closure Report for Building 643 PCB Site in IA A2, Mare Island, Vallejo, California. From Mr. Michael Montgomery, Assistant Director, Federal Facility and Site Branch Cleanup, to Mr. Anthony Megliola, Department of the Navy. June 18.

___. 2010j. Concurrence Letter Regarding Final Closure Report for GRA 65/Load Control Center PCB Site in IA A2, Mare Island, Vallejo, California. From Mr. Michael Montgomery, Assistant Director, Federal Facility and Site Branch Cleanup, to Mr. Anthony Megliola, Department of the Navy. June 18.

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TABLE 3: SITE CLOSURE ACTIONS (CONTINUED)

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TABLE 4: SUMMARY OF ASBESTOS SURVEYS

Parcel Number	Building Number	Description	Square Footage	Year Built	1996 Asbestos Survey Results[a]	Abatement Completed[b]	2004 Visual Survey Results[c]
II	491	Sentry House / Phone Switch	71	1936	Nonfriable ACM	NA	No new asbestos hazard was identified.
	589	Storage	2,842	1942	Nonfriable ACM	NA	No new asbestos hazard was identified.
	593	Electrical Distribution Center	2,848	1942	Nonfriable ACM	NA	No new asbestos hazard was identified.
	641	North Fire Station	5,284	1941	Friable ACM; Abatement performed in 1996	Yes (torn and exposed TSI was removed)	No new asbestos hazard was identified.
	797	Pump House and Electrical Distribution Center	2,137	1941	Damaged friable ACM; Abatement performed in 1996	Yes (several damaged TSI pipes and fittings removed)	Damaged and exposed friable ACM was identified. The building was secured and a hazard notice was posted.
	799	Electrical Distribution Station and Public Works Center Work Area	1,481	1946	Nonfriable ACM	NA	No new asbestos hazard was identified.
	825	Boat House	1,868	1951	Damaged friable ACM; Abatement performed 1996	Yes (torn and exposed TSI was removed)	No new asbestos hazard was identified.
X-B(1)	A172	Magazine	9,950	1938	Nonfriable ACM	NA	No new asbestos hazard was identified.
	A166A	Barn/Stable	3,500	Unknown	NA[d]	NA[d]	NA[d]
X-B(2)	A151	Magazine	7,701	1931	Nonfriable ACM	NA	No new asbestos hazard was identified.
	A152	Magazine	7,701	1931	Nonfriable ACM	NA	No new asbestos hazard was identified.

TABLE 4: SUMMARY OF ASBESTOS SURVEYS (CONTINUED)

Notes:

a Based on Navy (1996).
b Abatement conducted between 1996 and 1998, as detailed in SSPORTS (1999).
c Visual survey conducted in 2004 to support the SEBS report (SulTech 2005).
d Building A166A is a barn/stable; thus, no ACM survey was conducted.

ACM Asbestos containing material
NA Not applicable; no ACM abatement was necessary based on previous survey or no ACM survey was conducted.
SEBS Supplemental environmental basewide survey
TSI Thermal system insulation

Sources:

Department of the Navy (Navy). 1996. "Asbestos Building Survey Report." December.
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SulTech. 2005. "SEBS Remaining Navy Owned Upland Property, Mare Island, Vallejo, California." August 1.

ATTACHMENT 1
RESPONSES TO COMMENTS

TABLE OF CONTENTS

[1] Parcel X-B(3) was included in the draft final version of the FOST that was available for public review and comment, but has since been removed from the transfer property and is no longer described in this FOST.

2. **Comment:** **Section 6.1: Revise the text to correctly reflect that the non-time critical removal action for removal of residual free-phase product is planned, but has not yet been completed.**

Response: The Draft FOST was prepared using future tense to describe site conditions that will be completed at the time of the Final FOST. All site conditions will be updated to accurately reflect their status before the Final FOST is issued.

RESPONSES TO DTSC COMMENTS, DATED APRIL 26, 2010

1. **Comment:** **Section 4.3.1 and Table 3. The text in Section 4.3.1 notes that Building 797 contains friable asbestos and that the building has been secured to prevent access because of this. However, the table indicates that asbestos abatement was completed in 1999.**

Response: Please see the Navy's response to Water Board Comment #1.

2. **Comment:** **Section 4.3, Asbestos-Containing Material.**

a. **Parcel II. There are a number of buildings in Parcel II. Please verify all of the buildings present within this parcel were surveyed for ACM and provide the date they were surveyed.**

b. **Parcel II and Parcels X-B (1, 2 and 3). The FOST references a 2004 visual survey of buildings containing ACM to determine if any was accessible, damaged or friable. Although none was found in 2004, this may not represent current conditions as buildings may not have been actively maintained.**

Response: a. The text in Section 4.3 and Table 4 was revised to provide additional information on the ACM surveys that were completed in 1996 and 2004 (Navy 1996; SulTech 2005), including the abatement conducted in 1996 (SSPORTS 1999).

b. Section 4.0, which summarizes the environmental conditions and notifications that apply to the FOST property, was revised to address the potential for changed conditions associated with friable, accessible, or damaged asbestos. Specifically, the second paragraph of Section 4.3 of the FOST was revised as follows:

> "Hazardous materials in the form of asbestos or ACM have been found and are otherwise presumed to exist in buildings and structures in Parcels II and X-B (1, 2, and 3). <u>All buildings within these parcels were identified as containing asbestos in the 1996 survey were visually inspected again in 2004 as part of the SEBS (SulTech 2005) to determine if known ACM</u>

remained intact or if friable, accessible, or damaged asbestos was present as a result of changed building conditions. Information on the existence, extent, and condition of ACM at these buildings is provided in Table 4. The potential exists for ACM that was found to be intact at the time of the 2004 visual site inspection may have subsequently become friable, accessible, or damaged. In the event that friable, accessible, or damaged asbestos is discovered by the transferee, except for short-term and emergency maintenance, then access, use, or occupancy is prohibited until either (1) any necessary ACM abatement has been completed, or (2) the building is demolished by the transferee, in accordance with all applicable local, state, and federal laws and other requirements relating to asbestos or ACM. Until abatement or demolition is complete, the transferee must manage the ACM in accordance with all applicable local, state, and federal laws and requirements."

In addition, Section 5.1 of the FOST was revised as follows:

"The transferee will be required to comply with the specific restrictions listed below for ACM that has been identified within the parcels. Information on the existence, extent, and condition of ACM at buildings within Parcels II, X-B(1), X B(2), and X-B(3) is provided in Table 4. In addition to the restrictions listed below, in the event that friable, accessible, or damaged asbestos is discovered by the transferee in buildings not listed below, except for short-term and emergency maintenance, then access, use, or occupancy is prohibited until either (1) any necessary ACM abatement have been completed, or (2) the building is demolished by the transferee, in accordance with all applicable local, state, and federal laws and other requirements relating to asbestos or ACM. Until abatement or demolition is complete, the transferee must manage the ACM in accordance with all such applicable local, state, and federal laws and requirements."

3. **Comment:** **Attachment 3, Hazardous Substances Notification Table. The table indicates that mercury and PCBs in the SSTP Tidal Mudflats were released to land. It may be better to state that these chemicals were released to sediments.**

Response: The Navy modified Attachment 5 (formerly Attachment 3) to remove the hazardous conditions column referenced in the comment; the information is not required for a hazardous substances notification table per Title 40 *Code of Federal Regulations* Part 373.3. Section 4.1.3 accurately describes the background associated with the SSTP tidal mudflats.

RESPONSES TO DFG COMMENTS, DATED MAY 4, 2010

1. **Comment:** **Page 1, Section 2.0 Property Description; Figures 3, 4, and 5. Please include a description of the biological resources present in each parcel. This description should include all sensitive habitats (including wetlands, mudflats, and upland areas) and a list of sensitive species (i.e., salt marsh harvest mouse, California Clapper Rail, California Black Rail, California Brown Pelican, White-tailed Kite, Barn Owl, green sturgeon, and delta smelt) including their State and Federal status, that are present or potentially present within the parcel transfer boundaries.**

   Response: The FOST was prepared in compliance with the Navy Base Realignment and Closure Project Management Office (BRAC PMO) "Procedures for Processing Findings of Suitability to Transfer or Lease," dated December 2008, and the Department of Defense's (DoD) "Base Redevelopment and Realignment Manual (BRRM)," dated March 1, 2006, neither of which prescribes this level of detail. This guidance has been changed from previous guidance to limit the scope of the FOST to only address matters specifically related to hazardous substances, petroleum products and other regulated materials (e.g., asbestos) on the property and to not include information such as the suggested biological resources information listed in the comment. Therefore, no change was made to the document.

2. **Comment:** **Page 3, Section 4.0 Summary of Environmental Conditions and Notifications. There are various Federal and State laws and regulations that protect sensitive habitats and species. The transferee should be notified that any future activities the transferee conducts that may impact sensitive habitats and species may require consultation with the resource agencies and/or permits to determine appropriate avoidance, minimization, and mitigation measures to implement. These resource agencies include the US Fish and Wildlife Service, NOAA's National Marine Fisheries Service, and DFG for impacts to habitat and species, and the Army Corps of Engineers, the California Regional Water Quality Control Board, and DFG for impacts to wetlands, waters of the United States, and waters of the State.**

   Response: Please see the Navy's response to DFG Comment #1.

RESPONSES TO EPA COMMENTS, DATED MAY 4, 2010

1. **Comment:** **Page 2. Regulatory Coordination. The draft FOST needs to also reference coordination and clearances for compliance under National Environmental Policy Act (NEPA).**

Response: The FOST was prepared in compliance with the Navy BRAC PMO "Procedures for Processing Findings of Suitability to Transfer or Lease," dated December 2008, and the DoD's "BRRM," dated March 1, 2006, neither of which prescribes this level of detail. This guidance has been changed from previous guidance to limit the scope of the FOST to only address matters specifically related to hazardous substances, petroleum products and other regulated materials on the property and to not include information such as the suggested reference to coordination and clearances for compliance under the National Environmental Policy Act (NEPA). Therefore, no change was made to the document. However, we note that a NEPA Environmental Impact Statement and Record of Decision for the disposal of Mare Island property, including the property covered by this FOST, was completed in 1998.

2. **Comment:** **Page 3. First Paragraph. RCRA corrective action determinations are required for Parcels II, X-B (1, 2, and 3) and the STP [sic] outfall. These must be completed before the FOST can be finalized.**

Response: Comment noted. DTSC prepared a draft Resource Conservation and Recovery Act (RCRA) corrective action complete determination for inclusion with the Draft Final FOST. It is Navy's understanding that DTSC intends to complete the final RCRA corrective action complete determination prior to Navy's execution of the Final FOST.

3. **Comment:** **Section 4, Summary of Environmental Conditions. The draft FOST lacks discussion of condition of these parcels with respect to groundwater contamination and to pesticides. Please address these conditions in the next version.**

Response: Text will be added to the FOST in Sections 4.1.1, 4.1.2, and 4.1.3 for Parcels II, X-B(1, 2, and 3), and SSTP Outfall of Parcel I to state that impacts to groundwater have not been identified at these sites. Please see Attachment 5 (formerly Attachment 3) of the FOST for a discussion of pesticides.

4. **Comment:** **Page 5. MRP. While Parcels X- (1, 2 and 3) [sic] may be free of MEC they may still be within the explosive Safety Quantity Distance (ESQD) of parcels that still contain MEC hazards. The WMA Property may not be transferred until mitigation of munitions and explosives of concern has been completed and the regulatory agencies have certified completion.**

Response: The text in Section 4.1.2 notifies the transferee that explosive safety quantity distance (ESQD) arcs may apply to these FOST parcels. Per DoD Instruction 4165.72, the deed will also include the notification. The Navy has included such notifications in prior deeds at Mare Island, including the Eastern Early Transfer Parcel conveyance. The Navy plans

to coordinate with the transferee when it is conducting any munitions and explosives of concern (MEC) response actions on adjacent property, as it has in the past. The Navy received no further action (NFA) concurrence from DTSC related to MEC and material documented as safe (MDAS) for Parcels X-B(1), X-B(2) and X-B(3) (DTSC 2010).

5. **Comment:** **Page 6. Agency certifications of concurrence with No Further Action Recommendations for the Horse Stables Area and STP [sic] Outfall must be completed before the FOST can be finalized.**

Response: The DTSC provided NFA concurrence for Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) contaminants within Parcel X-B(1) on May 6, 2010 (DTSC 2010). The Draft Remedial Action Completion Report for the SSTP Outfall (Weston 2010) was submitted to the regulatory agencies for their review and concurrence. The Navy anticipates concurrence from agencies prior to submission of a Final FOST.

6. **Comment:** **Page 7. Asbestos. The draft FOST indicates that accessible, friable and damaged asbestos remains in building 797 on the Fleet Reserve Pier. This is a public health concern, as many Mare Island buildings have already been broken into and vandalized. Abatement of the asbestos needs to be completed prior to transfer, or the transferee needs to provide financial assurance that the abatement work will be completed within a reasonable time frame and not left abandoned in place. For buildings where asbestos remains in acceptable habitable condition, deed notices will be required.**

Response: Abatement of ACM hazards is not required by law, regulation or DoD guidance prior to property transfer and the buildings will be transferred as-is. The FOST currently includes a notification and restrictions required by the transferee for any damaged, friable ACM present within Parcel II at Building 797. Please also see the Navy's response to DTSC Comment #2b; which references certain updates to the ACM discussion in the FOST.

7. **Comment:** **Lead Based Paint, pages 7-8. The presence of lead based paint in buildings indicates a deed restriction will be required to prevent residential use until characterization and necessary abatement has been completed.**

Response: A deed restriction, as suggested, is not required by law, regulation, or DoD guidance; however, the FOST gives notice of the likely presence of lead-based paint (LBP). Specifically, the text in Section 4.4 states, "If the transferee intends to demolish and redevelop for residential use after transfer of any non-residential buildings, the transferee may, under

applicable law or regulation, be required by DTSC or other regulatory agencies to evaluate the soil adjacent to the non-residential buildings for the hazards of lead in soil." The deed will also contain language notifying the transferee of its obligation to comply with applicable LBP regulations. No changes were made based on this comment.

8. **Comment:** **PCBs, page 8. While Navy is actively working on achieving TSCA closure on the PCB sites in Parcel II/ Investigation Area A2, closure has not actually been completed as the draft FOST states. Closure certification must be completed before the property is transferred. Sites where cut PCB cable have been capped with an epoxy sealant (referenced on page 9) should also be capped with a steel plate for outdoor surfaces subject to weathering, and notification to the deed will also be required.**

Response: The Navy revised the Draft Final FOST to note the current status of closure for all polychlorinated biphenyl (PCB) sites. The Navy has submitted all documentation to support NFA and has requested EPA's concurrence. The Navy is awaiting EPA's response and fully expects to achieve closure for all PCB sites prior to transfer. Based on recent sampling of remaining electrical cables, no concentrations of PCBs were detected above the Toxic Substances Control Act (TSCA) threshold of 50 ppm. The Navy does not plan to add steel plates as a cap for cabling in addition to the epoxy sealant because concentrations of PCBs do not exceed the TSCA threshold. Thus, a deed notification regarding electrical cables will not be necessary for the FOST property.

9. **Comment:** **Page 11. The UST site in Parcel XV-B1 referenced as still under investigation needs to achieve regulatory closure before the property is transferred under the FOST. The non-time critical removal action for IR 17/ Building 503 referenced as having been completed in the draft FOST document has not yet been initiated as of today's date.**

Response: Parcel XV-B(1), which includes Building 993 and the Installation Restoration Site 17 (IR17) and Building 503 Area, is an adjacent property to Parcel II and is not covered under this FOST other than as an adjacent property. The Draft Final FOST will be revised to note that Building 993 is undergoing additional investigation and the IR17 and Building 503 Area is currently undergoing a non-time critical removal action.

10. **Comment:** **SSTP outfall, page 12. Regulatory closure certification must be achieved prior to final transfer of the property.**

Response: Please see the Navy's response to EPA Comment #5.

RESPONSES TO DTSC COMMENTS, DATED JUNE 21, 2010

1. **Comment:** **As noted previously in comments on the Draft Final Record of Decision for Investigation Area A2, DTSC cannot concur that Parcel II, Investigation Area A2, is suitable for transfer until the PCB compliance program has addressed the PCB sites to unrestricted standards within Investigation Area A2.**

   Response: The Navy conducted investigation, abatement, and closure activities for all 13 PCB sites within Parcel II under the Navy's PCB compliance program. The Navy subsequently received closure concurrence from the EPA for all 13 PCB sites (EPA 2010a-n).

REFERENCES

California Environmental Protection Agency's Department of Toxic Substances Control (DTSC). 2010. Letter Regarding No Further Action Required for Parcels X-B(1), X-B(2), X-B(3). From Barbara J. Cook, to Michael Bloom, Department of the Navy. May 6.

Department of the Navy (Navy). 1996. "Asbestos Building Survey Report." December.

Supervisor of Shipbuilding, Conversion, and Repair, Portsmouth, Virginia, Environmental Detachment, Vallejo (SSPORTS). 1999. "Asbestos Remediation Completion Report. Volumes 1-5." August.

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U.S. Environmental Protection Agency (EPA). 2010a. Concurrence Letter Regarding Navy's Request for No Further Action for PCB Site Building 591, IA A2, Mare Island, Vallejo, California. From Mr. Mike Montgomery, Assistant Director, Federal Facility and Site Branch Cleanup, to Mr. Michael Bloom, Department of the Navy. February 8.

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_____. 2010l. Letter Regarding TSCA Closure of PCB Transformer 1204, Mare Island, Vallejo, California. From Mr. Michael Montgomery, Assistant Director, Federal Facilities and Site Branch Cleanup, to Mr. Anthony Megliola, Department of the Navy. August 17.

_____. 2010m. Concurrence Letter Regarding Final Closure Report for Building 799 PCB Site in IA A2, Mare Island, Vallejo, California. From Mr. Michael Montgomery, Assistant Director, Federal Facility and Site Branch Cleanup, to Mr. Anthony Megliola, Department of the Navy. August 17.

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Weston Solutions, Inc (Weston). 2010. "Draft Remedial Action Completion Report, Sanitary Sewage Treatment Plant Outfall, Former Mare Island Naval Shipyard, Vallejo, California." April.

RESPONSE TO PUBLIC COMMENTS ON THE DRAFT FINAL FINDING OF SUITABILITY TO TRANSFER FOR PARCELS II, X-B (1, 2, AND 3)[1], AND SANITARY SEWAGE TREATMENT PLANT OUTFALL OF PARCEL I, FORMER MARE ISLAND NAVAL SHIPYARD, VALLEJO, CALIFORNIA

This document presents the Department of the Navy's responses to public comments received on the "Draft Final Finding of Suitability to Transfer (FOST) for Parcels II, X-B (1, 2, and 3)[1], and Sanitary Sewage Treatment Plant (SSTP) Outfall of Parcel I, Former Mare Island Naval Shipyard (Mare Island), Vallejo, California," dated May 2010. The comment period began on May 17, 2010, and ended on July 1, 2010.

The Navy received written comments during the public comment period from Mr. Fred Ousey, EnviroTech Services Company, dated June 1, 2010. The following responsiveness summary presents the views of the public and documents the consideration of public comments on the FOST.

COMMENTS FROM MR. FRED OUSEY, ENVIROTECH SERVICES COMPANY, DATED JUNE 1, 2010

GENERAL COMMENT

1. **Comment:** **In October 2009, I began a comprehensive research of this area and submitted 20 comments to the US Navy, EPA and DTSC regarding why I felt this area was not suitable for early transfer. Following that, I received a response from the navy through a Weston Letter of Response, and an E-mail from Janet Naito with the DTSC. The EPA did not respond to me directly. Both of the responses by the Navy and DTSC detailed that this area was ready for early transfer and essentially my concerns were not sufficient enough to warrant additional investigation at this site. Regarding those responses by the Navy and DTSC, I have the following comments to be entered in to the public record. I maintain that my efforts show this area is not suitable for early transfer. I undertook a careful evaluation of the site with the advice and counsel of other environmental professionals and my 30 years of experience working in different capacities as a Geologist. I can not hope to persuade the Navy, EPA and DTSC of all my concerns so will outline four specific areas of concern for the public record.**

   Response: The Navy is not planning an early transfer of the property and instead is planning a transfer of the subject property to the City of Vallejo with the Comprehensive Environmental Response, Compensation, and Liability

[1] Parcel X-B(3) was included in the draft final version of the FOST that was available for public review and comment, but has since been removed from the transfer property and is no longer described in this FOST.

Act (CERCLA) covenant warranting that "all remedial action necessary to protect human health and the environment with respect to any hazardous substance identified...remaining on the property has been taken before the date of this deed." The Navy interprets the commenter's reference to "early transfer" to be a general reference to transfer.

In addition, the Navy does not understand the reference in the above comment with regard to the following sentence: *"I received a response from the navy through a Weston Letter of Response."* The Navy has not issued a letter of response to the commenter, either directly or via a consultant to the Navy, with the exception of providing the commenter a draft copy of the responsiveness summary in the Record of Decision/Remedial Action Plan (ROD/RAP), Investigation Area (IA) A2, Former North Building Ways (FNBW) Area, in an e-mail dated January 20, 2010.

The Navy assumes that when the commenter refers to "this area", he is referring to Parcel II, a parcel subject to transfer under this FOST. The majority of the IA A2 and FNBW Area are encompassed by Parcel II, and the commenter previously submitted comments on the IA A2, FNBW Area Proposed Plan/Draft Remedial Action Plan (Navy 2009). Navy responses to each of Mr. Ousey's comments dated September 23, September 30, October 20, and November 3, 2009 have been provided previously and may be found in Attachment D to the "Final ROD/RAP, IA A2, FNBW Area" (Navy 2010). The California Environmental Protection Agency's Department of Toxic Substances Control (DTSC) also received written comments from Mr. Ousey in an e-mail dated January 22, 2010, and DTSC provided written responses to Mr. Ousey in an e-mail dated April 29, 2010. The regulatory agencies that oversee the Navy's environmental cleanup at Mare Island – the DTSC, the San Francisco Bay Regional Water Quality Control Board (Water Board), and the U.S. Environmental Protection Agency (EPA) – have concurred with the no further action decision and Final ROD/RAP (Navy 2010).

During development of the ROD/RAP for IA A2, FNBW Area, the Navy considered each of the comments provided by Mr. Ousey and addressed his concerns as appropriate. Actions taken by the Navy in response to Mr. Ousey's comments included removing drums consisting of concrete and waste oil, covering open manholes, and re-securing buildings to prevent further trespassing. The Navy also walked the site to ensure no additional hazards remained and occasionally visits the site to ensure site conditions have not changed. Additionally, DTSC conducted a field investigation of the storm sewer in response to Mr. Ousey's email dated January 22, 2010. Until the property is transferred, the Navy is obligated to maintain it in a condition that does not pose a threat to human health, the environment, or public safety. All other concerns were appropriately discussed in the

Navy's responses to Mr. Ousey's comments (see Attachment D of the ROD/RAP [Navy 2010]). The Navy and DTSC did not identify any condition that would warrant additional intrusive investigation of the site after all of the concerns raised by Mr. Ousey had been considered; thus, no additional subsurface investigation was conducted by the Navy.

SPECIFIC COMMENTS

1. **Comment:** **The prevailing argument by the Navy, EPA and DTSC was this area was adequately studied in earlier reports from a hydro geologic perspective. I maintain this is not the case because the entire sampling model was taken from a conceptual model that was inaccurate and did not take into account accurate high resolution historical aerial photographs of ongoing Pre World War II building activities which clearly delineate areas of concern for the possible release of past contamination into the 30 acre fill area known as the North Building Ways. The conceptual model which was the basis for investigation, sampling and analysis report was inaccurate.**

Response: The Navy previously responded to this concern in Appendix D of the IA A2, FNBW Area ROD/RAP (Navy 2010); however, a summary is provided here for the reader's convenience. The Navy agrees that surveying historical aerial photographs can help identify previous activities at the site. As described and presented in the Group II/III Field Sampling and Analysis Plan (FSAP) (Tetra Tech EM Inc. [Tetra Tech] 1998), an accurate and complete conceptual site model (CSM) for IA A2 was developed based on a thorough review of Mare Island microfiche files, personnel and community interviews, along with information presented in a 1992 site inspection (SI) report (PRC Environmental Management, Inc. [PRC] 1992). These microfiche files contained aerial photos, facility maps, and detailed building and infrastructure plans related to IA A2. Over time, the CSM originally developed in 1998 was refined and currently presents an accurate depiction of potential source areas and exposure pathways at IA A2.

Development of the Group II and III sites came from a number of previous reports that documented conditions at Mare Island. Group II sites were identified based on the following: the Resource Conservation and Recovery Act facility assessment (A.T. Kearny, Inc. 1987), preliminary assessment (PA)/SI for nonradiological sites (PRC 1995a), the PA for ordnance sites (PRC 1995b), and an SI covering five additional sites (PRC 1995c). Group III sites were targeted by the Navy, regulatory agencies, the environmental baseline survey (Supervisor of Shipbuilding, Conversion, and Repair, Portsmouth, Virginia, Environmental Detachment, Vallejo [SSPORTS] 1994), and the Restoration Advisory Board as uninvestigated areas of possible contamination (Tetra Tech 1998).

The Group II/III FSAP (Tetra Tech 1998) proposed soil sample locations based on the CSM. Initial surface soil sampling was followed by deeper soil sampling at locations where surface samples exceeded the screening criteria. Initial sampling at IA A2 did not indicate CERCLA contaminants were present at significant levels and did not identify specific spill or source areas. Without a specific source of contamination in soil, the impact to groundwater was expected to be minimal, and therefore a limited number of groundwater samples were required to sufficiently evaluate areas of soil where elevated constituents were identified. The Group II/III FSAP (Tetra Tech 1998) was reviewed and approved by the regulatory agencies, and this iterative sampling approach was implemented at all Group II/III sites on Mare Island. Additionally, throughout the iterative sampling, the Navy and the regulatory agencies met regularly to review results and agree on adequate characterization of each site investigated under the Group II/III program. As with the other Group II/III sites, the Navy and regulatory agencies came to agreement on the adequate characterization methodology of IA A2, sampling was concluded, and the Navy documented the site characterization and risk assessment in the remedial investigation (RI) report for IA A2 (Tetra Tech 2008). Contrary to the commenter's assertions, the Parcel II area was extensively investigated and evaluated in an iterative and collaborative process, resulting in a complete and accurate conceptual model of the site.

2. **Comment:** **Furthermore, the resulting study did not provide a hydrogeologic report that was based on the accurate acquisition of field data. To support my claims, I cited a letter from a University Professor who reviewed the boring logs conducted during the investigation and he reported they were poorly done and could not be reliable. This undeniably concludes, in my opinion, the data was flawed, therefore the report is flawed. To support the argument that this entire 64 acre area has not be adequately studied, let me state by my review of the documents and reports, I have not seen a single hydro geologic groundwater gradient map compiled of area. I state the area can not be classified as having been completely studied without compiling an accurate groundwater gradient map.**

Response: The Navy previously responded to this concern in Appendix D of the IA A2, FNBW Area ROD/RAP (Navy 2010); however, a summary is provided here for the reader's convenience. The Navy conducted a hydrogeologic investigation, in accordance with a sampling plan (Tetra Tech 1998), with the intent to characterize the groundwater quality in support of an evaluation of the potential threat to human health and the environment. Grab groundwater samples were collected from locations where detections of chemicals in subsurface soil had exceeded applicable screening levels because no source areas were identified during historical research of the site. Based on the detections in soil, the Navy collected 17

groundwater samples from across the FNBW Area. These groundwater samples provided the basis for the hydrogeologic evaluation. Groundwater data did not indicate a release of contaminants to groundwater; therefore, permanent monitoring wells were not installed and hydraulic modeling of chemicals at IA A2 was not deemed necessary. A hydrogeologic gradient map cannot be developed without data from permanent monitoring wells; thus, a map was not created. However, based on the proximity of the Mare Island Strait, groundwater is expected to flow toward the adjacent body of water.

The Navy used conventional methods to collect groundwater samples at the site. The methods were presented in a sampling plan (Tetra Tech 1998) that was approved by the regulatory agencies before sampling commenced. Deviations from the sampling plan that occurred in the field were discussed immediately with the regulatory agencies and are described in the RI report (Tetra Tech 2008). Temporary wells were installed after soil sample results were received and within 3 feet of those original soil borings that showed subsurface contamination may exist. The grab groundwater samples were collected from the temporary wells using a peristaltic pump, which is an industry-standard method for collection of these samples. No soil cores were collected or logged at that time because the purpose of the temporary well was to collect a grab groundwater sample. However, soil cores immediately adjacent to the temporary well locations were logged previously, and those logs were used to select the screened interval for the temporary well. All boring logs created during the RI investigation were presented in the RI report (Tetra Tech 2008). The groundwater samples were also collected in accordance with the approved sampling plan (Tetra Tech 1998), and therefore, the results are considered valid and definitive. The Navy and regulatory agencies came to agreement on the adequate characterization of groundwater at IA A2, sampling was concluded, and the Navy proceeded to document the site characterization and risk assessment in the RI report for IA A2 (Tetra Tech 2008).

3. **Comment:** **Using a MiniRAE 2000 Photo ionization Detector (PID) I personally acquired elevated levels of volatile organic compounds (VOC's) along a ¼ mile stretch of sewer line underneath the roadway in the North Buildings Ways area. The data I collected was simply denounced as being false due to rising tides and/or humidity variances. As the owner of EnviroTech, a Company that sells environmental equipment for 22 years, and an active distributor of RAE Systems, a PID manufacturer, I believe this response is completely inadequate for this case. The releases of VOC's in this area was more likely due to high temperatures (90 degrees plus on this day) volatilizing organic compound's in the sewer line and it is worthy of investigation. Further investigation is also supported by the elevated levels of VOC**

whose source has not been isolated and is outlined in the sampling analysis reports in this area. This DTSC and Navy response is inadequate to resolve the likely potential for constituents of concern along this ¼ mile road and I simply conclude that until the source of the elevated levels of VOC's is determined, you have a contamination problem.

Response: The Navy previously responded to this concern in Appendix D of the IA A2, FNBW Area ROD/RAP (Navy 2010). The Navy has not identified a source area of volatile organic compounds (VOCs) and no VOCs were identified in soil or groundwater at concentrations that exceed the regulatory comparison criteria; thus, volatile chemicals are not expected to occur within the IA A2 storm water system as a result of historical site activities. Furthermore, the results for soil and grab groundwater samples collected at numerous locations across the site supported the CSM; that is, contamination was mostly confined to the surface and no point sources were identified. There is nothing in any of the extensive investigation and analysis performed at IA A2 that would suggest the presence of VOC sources in Parcel II at levels presenting a risk to human health or the environment.

In response to Mr. Ousey's concerns as communicated in his written comments to DTSC dated January 22, 2010, a DTSC industrial hygienist subsequently conducted air monitoring of the storm water system manholes on February 25, 2010, using a photoionization detector (PID) multi-gas meter capable of detecting VOCs. No elevated PID readings were measured during the survey and no other concerns were identified when the open storm water manholes were inspected. DTSC responded to Mr. Ousey's email on April 29, 2010, and included a summary of the February 25, 2010, site visit. The Navy and DTSC's conclusion was that Mr. Ousey's readings may have been affected by high humidity associated with elevated temperatures and tidal influence in the storm drains when his readings were collected.

4. **Comment:** **The North Pier area was never allowed to be fully investigation by the public during the entire public response period because it was locked and inaccessible. I do not understand how the Navy can expect to comply with a public response period by not allowing the public to view the area. The locking of the North Piers occurred during the public response period in October 2009 and it has occurred during this May 2010 RCRA Corrective Action public response period. It is my opinion that the Navy is not in full compliance by locking the areas which are designated for public access. This is especially true of this North pier area which historical photographs (never reviewed in any prior report) saw active usage during World War II, the Korean and Vietnamese Wars. Some of the actions in this area could have**

involved the wash down of ships deployed for the World War II Crossroads Project whereby they may have been had radioactive exposure from nuclear detonation testing at Bikini Island.

Response: The Navy previously responded to this concern in Appendix D of the IA A2, FNBW Area ROD/RAP (Navy 2010); however, a summary is provided here for the reader's convenience. The public comment period is held to invite the public to review site documents and technical reports regarding historical activities, present site conditions, describe the nature and extent of any contamination, and set forth the Navy's plans for regulatory close out of the site. The Navy has maintained the security fencing on all Mare Island piers since the base was closed in 1995. The Navy does not allow public access to the pier areas based on safety and liability concerns.

The Navy reviewed historical photos of the site during development of the CSM. The Navy is fully aware that ships were historically berthed at the Fleet Reserve Pier based on former naval base personnel interviews and historical photos. According to the Historical Radiological Assessment for Mare Island (Radiological Control Office 1996a, 1996b), seven ships were brought to Mare Island for mooring and decontamination after Operation CROSSROADS. The ships were reportedly moored at the north piers (which would include the Fleet Reserve Pier) before they were decontaminated in dry dock. Though the report does not specify the exact dry docks used for the decontamination work, it could not have been in the FNBW Area because dry docks were not present there. Decontamination at the dry docks included flushing sea water piping in ships with acid and scraping the hulls prior to sandblasting (Radiological Control Office 1996b). The generated waste was controlled and managed prior to disposal.

The Navy has conducted numerous radiological surveys at Mare Island to support the Navy's nuclear license under the General Radioactive Material Program and the Naval Nuclear Propulsion Program, and to obtain radiological release of the base from the regulatory agencies for base closure.

Sampling for radioactivity was not necessary during the RI phase of investigation because radiological concerns were addressed at IA A2 prior to base closure in 1996, and concurrence had been obtained from the regulatory agencies (DTSC, Water Board, and DHS 1996a,b; DTSC 1997; EPA 1996a,b). There is nothing in any of the extensive investigation and analysis performed at IA A2 that would suggest any concerns with respect to Operation CROSSROADS or radiological materials in general at Parcel II.

5. **Comment:** **In closing, I feel it is the responsibility of the Navy, DTSC and EPA to assure that this 64 acre parcel is properly studied and evaluated with respect to the presence of contamination and the public has an adequate opportunity to access the area to provide comments before this it is transferred by the Navy. I conclude that as of this date, this has not been completed and I suspect this area has specific hard-to-find areas of contamination or "hot spots" within the fill zone and possibly in, and around, the North Pier area. I conclude my comments for this area of continued concern.**

Response: The Navy is committed to meeting its obligation to transfer Mare Island property in a condition that does not pose a threat to human health or the environment.

The Navy identified the FNBW Area as an area of potential contamination based on historical uses of the property for assembling ships. After numerous rounds of sampling had been conducted, the RI report (Tetra Tech 2008) concluded that CERCLA contaminants at the site were not detected at levels that would warrant additional cleanup. The human health and ecological risk assessment results, which are used to determine whether a remedial action is necessary, indicated that chemicals were not present at levels that pose a threat to human health or the environment. In addition, the grid-based approach to sampling the site allowed for unbiased sample collection across the site. During the RI (Tetra Tech 2008), none of the sample results indicated sources or hot spots of contamination.

The Navy has not detected CERCLA contaminants above concentrations that would require additional action. All other environmental compliance concerns (such as polychlorinated biphenyls or total petroleum hydrocarbons) for the property were fully addressed by the Navy before transfer.

The Navy has conducted the RI at IA A2 under the guidelines set forth in CERCLA and in coordination with the regulatory agencies that oversee the Navy's cleanup at Mare Island. All sampling investigations were conducted according to an approved, site-specific sampling and analysis plan (field sampling plan/quality assurance project plan) that was accepted in advance by the Navy, its contractors, and the regulatory agencies. The results of each phase of the investigation, including any deviations from the sampling plan, were presented to and discussed with representatives from the regulatory agencies, who validated the consistency of these results with project objectives. This extensive effort over the entire site is documented in the administrative record and there is no evidence to suggest the presence of unidentified contamination or "hot spots" within Parcel II.

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_____. 1996b. Letter Regarding the "NNPP Radiological Survey Plan for Decommissioning Mare Island, Volume I, dated 2/28/96, and NNPP Radiological Final Report for Decommissioning Mare Island, dated 4/1/96." From Tom Huetteman, EPA, to Robert O'Brien, Radiological Control Office, Mare Island.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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San Francisco, CA 94105

AUG 25 2010

Mr. Anthony Megliola
Dept of the Navy
Base Realignment and Closure
Program Management Office
1455 Frazee Road, Suite 900
San Diego, CA 92108-4301

RE: Draft Final Finding of Suitability to Transfer (FOST) for Parcels II, X-B (1, 2 and 3), and Sanitary Sewage Treatment Plant Outfall of Parcel I Former Mare Island Naval Shipyard, Vallejo, California, May 2010; Responses to EPA Comments

Dear Mr Megliola:

EPA has reviewed the Navy's responses to EPA's comments on the March 8, 2010 Draft FOST for Parcels II, X-B (1, 2 and 3), and Sanitary Sewage Treatment Plant Outfall of Parcel I at former Mare Island Naval Shipyard. For the most part, EPA's comments have been satisfactorily addressed; however, the following comment remains to be addressed:

EPA Comment #6: **Page 7. Asbestos. The draft FOST indicates that accessible, friable and damaged asbestos remains in building 797 on the Fleet Reserve Pier. This is a public health concern, as many Mare Island buildings have already been broken into and vandalized. Abatement of the asbestos needs to be completed prior to transfer, or the transferee needs to provide financial assurance that the abatement work will be completed within a reasonable time frame and not left abandoned in place. For buildings where asbestos remains in acceptable habitable condition, deed notices will be required.**

Navy response: Abatement of ACM hazards is not required by law, regulation or DoD guidance prior to property transfer and the buildings will be transferred as-is. The FOST currently includes a notification and restrictions required by the transferee for any damaged, friable ACM present within Parcel II at Building 797.

In a letter dated July 15, 2010 regarding closure of PCB transformer 1204 associated with Building 593, the Navy writes:

"... please recognize the future transfer deed for the property from the Navy to the City of Vallejo will include a covenant made pursuant to CERCLA § 120(h)(3)(A)(ii) and (B) warranting that "all remedial action necessary to protect human health and the environment with respect to any hazardous substance identified pursuant to § 120(h)(3)(A)(i) (I) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 remaining on the property has been taken before the date of this deed" and that "any additional remedial action found to be

necessary after the date of such transfer shall be conducted by the United States." This language can also be found in the Navy's Draft Final Finding of Suitability to Transfer (FOST) document for Parcels II, X-B (1,2and 3) and the Sanitary Sewage Treatment Plant Outfall of Parcel I (DON 2010)."

This statement appears to be in conflict with the Navy's statement above regarding the asbestos in building 797.

Asbestos is a "Class A" known human carcinogen, and a CERCLA hazardous substance. Navy's statement that there is no law requiring abatement of asbestos hazards is misinformed. EPA has listed a number of sites to the National Priorities List where asbestos is the primary contaminant of concern. The conditions of vandalism on the Fleet Reserve Piers have created a potential for the release of a CERCLA hazardous substance and possible exposure of downwind residents. As of today's date, from discussions with the City of Vallejo, it is unclear who would be taking title to the Fleet Reserve Pier and who will be responsible for maintaining the security of the building to ensure that asbestos is not released to the atmosphere. EPA finds it unacceptable for the property to be abandoned in its current condition. Removal of the asbestos is necessary before EPA can support the final transfer of this property.

Please contact Carolyn d'Almeida of this office if you have and questions about this letter. She can be reached at (415) 972-3150.

Sincerely,

Michael Montgomery
Assistant Director
Federal Facility and Site Cleanup Branch

cc: Janet Naito, DTSC
Elizabeth Wells, RWQCB
Myrna Hayes, Mare Island RAB
Gil Hollingsworth, City of Vallejo

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SER BPMOW.BP/0747

SEP 07 2010

Mr. Michael Montgomery
United States Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, CA 94105

Dear Mr. Montgomery:

SUBJECT: DRAFT FINAL FINDING OF SUITABILITY TO TRANSFER FOR PARCELS II, X-B (1, 2, AND 3), AND SANITARY SEWAGE TREATMENT PLANT OUTFALL OF PARCEL I, FORMER MARE ISLAND NAVAL SHIPYARD VALLEJO, CALIFORNIA

The Department of the Navy (DON) is responding to a letter from the United States Environmental Protection Agency (EPA) dated August 25, 2010 regarding the Draft Final Finding of Suitability to Transfer (FOST) for Parcels II, X-B (1, 2 & 3) and Sanitary Sewage Treatment Plant Outfall of Parcel I, Former Mare Island Naval Shipyard (MINS), Vallejo, California. In its letter, the EPA acknowledged that its comments on the Draft Final FOST have been adequately addressed by the DON, with the exception of a single comment relating to the potential existence of asbestos in Building 797. The DON would like to clarify any misunderstandings between the parties and reaffirm to the EPA that asbestos at the former MINS has been and will continue to be managed in accordance with applicable law and in a manner that is protective of human health and the environment.

As the DON's previous responses in the Draft Final FOST explained, any asbestos within Building 797 (and elsewhere at the former MINS) has been and will be managed in accordance with applicable requirements. In accordance with the Memorandum of Agreement (MOA) for the Economic Development Conveyance (EDC) of the MINS and Associated Properties within City of Vallejo dated 30 September 1999 between the DON and the City, Article 6, Section 6.1 "City Obligations", the City is responsible for "Building Maintenance" including "managing asbestos containing materials (ACM) and lead based paint properly and comply[ing] with all applicable Federal, State and local laws related to asbestos and lead based paint". This same section in the MOA states that the City is responsible for "General Security". These City obligations currently apply to all EDC parcels.

Based on a 2004 survey, friable, accessible or damaged ACM may be present within Building 797, which is located on Fleet Reserve Pier 56. In accordance with the EDC MOA, the City has restricted access to the building by locking the building, locking the 8-ft high fencing that provides a barrier to land access to the pier and posting asbestos warning signs on the building itself. Given the aforementioned security/restrictive access measures, there is no public health concern regarding asbestos prior to transfer.

Post transfer, if asbestos poses a threat to human health, it will abated by the transferee prior to the building be accessed or occupied. Alternatively, if the transferee intends to demolish the subject building, they can forego abatement of the asbestos condition provided they prohibit occupation of the building and otherwise manage the asbestos in accordance with applicable requirements prior to and during the demolition. Apart from its independent obligation to comply with applicable asbestos requirements, the property transferee, in the present case, the City of Vallejo (City), is obligated to undertake such measures under the terms of its transfer agreement with the Navy. The City will be further obligated under the terms of the deed for the transfer of the parcel containing Building 797 which will contain terms notifying the City of the potential presence of asbestos in buildings being conveyed and of the City's responsibility to manage asbestos in accordance with applicable law.

The EPA letter also states. "...it is unclear who would be taking title to the Fleet Reserve Pier [pier 56] and who would be responsible for maintaining the security of the building to ensure that asbestos is not released to the atmosphere." It has long since been established in the EDC MOA that City will be taking title to Parcel II, including the Fleet Reserve Pier 56 as an appurtenance, and is responsible for the proper management of any asbestos present. For the avoidance of doubt, the DON recently confirmed with City representatives the City will be taking title to the Parcel II and the appurtenance (pier 56). As such, the City will be responsible for management of any ACM within the buildings on the parcel as described above.

Finally, there is no inconsistency between the circumstances and processes described above, and the covenant that the DON intends to include in the transfer deed that "all remedial action necessary to protect human health and the environment with respect to any hazardous substance identified pursuant to § 120(h)(3)(A)(i)(I) of the Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] of 1980 remaining on the property has been taken before the date of this deed." While asbestos may exist in the building, it has not been released to the environment, and as described above, the building has been secured. If present at Building 797, ACM is located entirely within the building, and is not a threat to human health or the

environment. Any hypothetical future release or threat to human health or the environment, including as a result of demolition, will be managed in a timely fashion by the City. This is consistent with CERCLA Section 104(a)(3), with past EPA and DON practice at numerous Federal Facilities, and with the EPA's guidance on "Response Actions at Sites with Contamination Inside Buildings" (OSWER Directive 9360.3-12, August 12, 1993).

We hope we have clarified any misunderstanding with respect to Building 797 and the DON's management of asbestos in general at the Former MINS, and we trust that we have adequately addressed the EPA's final comment on the Draft Final FOST. We look forward to continued collaboration with EPA on the important mission of facilitating the transfer and redevelopment of remaining properties at the Former MINS. I can be reached at (619) 532-0765 or anthony.megliola.navy.mil if you have any questions or comments.

Sincerely,

ANTHONY M. MEGLIOLA
Base Closure Manager
By direction of the Director

SEP 07 2010

Copy to:

Ms. Elizabeth Wells Regional Water Quality Control Board San Francisco Bay Region 1515 Clay Street, Suite 1400 Oakland, CA 94612	Ms Janet Naito California Environmental Protection Agency Department of Toxic Substances Control 700 Heinz Avenue, Suite 200 Berkeley, CA 94710-2737
Ms. Carolyn d' Almeida U.S. Environmental Protection Agency Mail Code SFD 8-1 75 Hawthorne Street, 9th Floor San Francisco, CA 94105-3901	Ms. Tami Nakahara CA Department of Fish and Game Office of Spill Prevention and Response (OSPR) 1700 K Street, Suite 250 Sacramento, CA 95811
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Mr. Gil Hollingsworth City of Vallejo 555 Santa Clara Street Vallejo, CA 94590-5934	Mr. Dennis Kelly Tetra Tech EM, Inc. 1999 Harrison Street, Suite 500 Oakland, CA 94612

ATTACHMENT 2
NAVY INITIATED REVISIONS TO THE DRAFT FINAL FINDING OF SUITABILITY TO TRANSFER

NAVY INITIATED REVISIONS TO THE DRAFT FINAL FINDING OF SUITABILITY TO TRANSFER

The Navy initiated changes to the Finding of Suitability to Transfer (FOST) for Parcels II, X-B (1, 2, and 3), and Sanitary Sewage Treatment Plant (SSTP) Outfall of Parcel I, between the draft final and final versions. These changes were unrelated to the comments received during the Public Comment period. One major change to the final FOST is the exclusion of Parcel X-B(3); it will be addressed in the future through a subsequent FOST and property transfer. In addition, changes were incorporated to ensure consistency within the document based on updated site status for the FOST property and adjacent sites. Minor changes were made to the following: Sections 3.1, 3.2, 4.0, 4.1, 4.3, 4.4, 4.4.2, 5.2, 5.2.2, 6.0, 6.1, 9.0, and 10.0, and Attachment 6 (formerly Attachment 4). The Navy also made major changes to Sections 1.0, 2.0, 3.0, 4.1.1, 4.1.2, 4.1.3, 4.3.2, 4.5.1, 5.1, and 6.2, Figures 2, 3, and 4, Table 3, and Attachments 1, 4 (formerly Attachment 2), and 5 (formerly Attachment 3), which are described below. Attachments were reordered in the final FOST for consistency with the main text. In addition, estimates of acreage provided in Section 2.0 of the final FOST vary from previous drafts of the FOST because legal descriptions were not yet finalized and Parcel X-B(3) was removed. The Navy is unable to edit the references to these acreages in Attachments 1, 3, and 4 because they were cited by the public and regulatory agencies.

Section 1.0 was revised to indicate (1) this FOST was also prepared in accordance with the Base Realignment and Closure Program Management Office Policy for Processing Findings of Suitability for Transfer or Lease (BRAC PMO Policy) (Navy 2008), and (2) that additional information is contained in the supporting documents referenced in the FOST, which are available in the Navy's public information repository and administrative record[1] for Mare Island.

Section 2.0 was revised to present the acreage described in the legal description for Parcel II (approximately 60.7 acres). The revised total area of the FOST property is 74.2 acres. In addition, a statement was added to the SSTP Outfall of Parcel I to indicate it is also known as the Western Early Transfer Parcel Exception Parcel 6.

Section 3.0 was revised to indicate the Navy received public comments on the draft final FOST, and they are included in Attachment 1 with comments also received by the regulatory agencies. In addition, Section 3.0 was revised to indicate that the California Department of Toxic Substances Control (DTSC) and San Francisco Bay Regional Water Quality Control Board (Water Board) provided their concurrence on the final FOST; the concurrence letter is included as Attachment 3.

Section 4.1.1 was revised to include two basewide solid waste management unit (SWMU) sites under the Resource Conservation and Recovery Act (RCRA) subheader because portions of these basewide SWMUs are located within Parcel II. These SWMUs include: SWMU 93, basewide storm sewer system, and SWMU 106, sanitary sewer system. The Navy requested no further action (NFA) under RCRA for the portions of these SWMUs that are located within

[1] Documents and relevant information relied on in the remedy selection process are available in a public information repository (John F. Kennedy Library, 505 Santa Clara Avenue, Vallejo, California 94590, (866) 572-7587) and the Navy's administrative record (Naval Facilities Engineering Command Southwest, Administrative Records Coordinator, Attn: Ms. Diane Silva, 1220 Pacific Highway, Code EV33, NBSD Building 3519, San Diego, California 92132, (619) 556-1280).

Parcel II. The DTSC concurred with the NFA recommendation in the RCRA corrective action determination letter included in Attachment 4 (formerly Attachment 2) of the FOST. Figure 3 was revised to indicate the locations of SWMUs 93 and 106 within Parcel II.

Section 4.1.2 was revised to indicate that the Navy received NFA concurrence from DTSC regarding hazardous substances at Parcel X-B(1) in May 2010 (DTSC 2010), which includes the small portion of the Horse Stables Area (HSA) within Parcel X-B(1). In addition, the text was revised to state that the remainder of the HSA is not included in the FOST property and will be closed out through a separate concurrence process for the Western Magazine Area.

Section 4.1.3 was revised to indicate that the Navy has submitted a Final Remedial Action Completion Report for the SSTP Outfall. The Navy received NFA concurrence from DTSC and Water Board for the SSTP Outfall in May 2010 (DTSC and Water Board 2010).

Section 4.3.2 was revised to remove specific asbestos-containing material information for Parcel X-B(3), which is no longer property subject to this FOST.

Section 4.5.1 was revised to state that the Navy received regulatory closure for all thirteen PCB sites within Parcel II.

Section 5.1 was revised to state that Building 797 in Parcel II is the only building that will require an asbestos-containing material restriction; all other buildings were previously abated for asbestos concerns.

Section 6.2 was revised to include a description for Parcel X-B(3), which is adjacent property to Parcel X-B(2). Figures 2 and 4 were revised to remove Parcel X-B(3), which is no longer property subject to this FOST.

Table 3 was revised to provide the current status for sites located within the FOST property and to include basewide SWMUs 93 and 106 under Parcel II.

Attachment 1 was revised to present the Navy's responses to comments received by the public, as well as a comment letter from EPA and a response letter from the Navy.

Attachment 4 (formerly Attachment 2) was revised to include the DTSC's final RCRA Corrective Action Complete Determination package. The package includes (1) a letter which certifies no further remedial actions are necessary, terminates the RCRA Corrective Action, and modifies the facility permit boundaries for Parcels II, X-B(1), and X-B(2), and SSTP Outfall of Parcel I, and (2) the California Environmental Quality Act Notice of Exemption. The previous contents of this attachment were removed.

Attachment 5 (formerly Attachment 3) was revised to include information for radiological isotopes identified within Parcel II and provide information on metals that typically comprise abrasive blast material.

REFERENCES:

California Environmental Protection Agency's Department of Toxic Substances Control (DTSC). 2010. Letter Regarding No Further Action Required for Parcels X-B(1), X-B(2), X-B(3). From Barbara J. Cook, to Michael Bloom, Department of the Navy. May 6.

DTSC and San Francisco Bay Regional Water Quality Control Board (Water Board). 2010. Letter Regarding Concurrence on the Final Remedial Action Completion Report, Sanitary Sewage Treatment Plant Outfall, Mare Island, Vallejo, California. From Janet Naito, Project Manager, to Anthony Megliola, Department of the Navy. May 27.

Department of the Navy (Navy). 2008. *Procedures for Processing Findings of Suitability to Transfer or Lease.* Base Realignment and Closure Program Management Office. December.

ATTACHMENT 3
REGULATORY AGENCY CONCURRENCE

Linda S. Adams
Secretary for
Environmental Protection

Department of Toxic Substances Control

Maziar Movassaghi
Acting Director
700 Heinz Avenue
Berkeley, California 94710-2721

Arnold Schwarzenegger
Governor

September 9, 2010

Anthony Megliola
Department of the Navy
BRAC Program Management Office West
1455 Frazee Road, Suite 900
San Diego, California 92108

Dear Mr. Megliola:

The Department of Toxic Substances Control (DTSC) and San Francisco Bay Regional Water Quality Control Board (Water Board) concur with the Finding of Suitability to Transfer (FOST) for Parcels II, X-B(1), X-B(2), and the Sanitary Sewage Treatment Plant Outfall of Parcel I. The enclosed map depicts the parcels and their location on the former Mare Island Naval Shipyard.

Parcel II consists of approximately 64 acres located in the northeastern portion of Mare Island. It is made up of the majority of Investigation Area A2. The eastern boundary of the parcel is the shoreline, which is defined as the mean high water line. Parcel II has two appurtenant structures (Fleet Reserve Pier and remnants of the former building ways and associated berthing) and seven buildings (Building 491, 589, 593, 641, 797, 799 and 825). The parcel contains upland habitat and tidal wetlands adjacent to Mare Island Strait and the approximately 40-acre former North Building Ways Area. The parcel is currently vacant. The General Plan designation is for Open Space – wetlands adjacent to Mare Island Strait and for Mixed Use – Planned Development for the remainder of the Parcel.

Actions to address petroleum hydrocarbons within IA A2 were conducted under the Water Board's Petroleum Corrective Action Program. On October 29, 2009, the Water Board issued a letter determining that no further actions related to petroleum hydrocarbons were required for the Former North Building Ways area within IA A2. The Navy addressed polychlorinated biphenyl (PCB) releases at IA A2 through its PCB Program under the oversight of EPA. The Navy received closure for Building 591 in February 2010; Buildings 589, 641, and 643, Building 797/GRA 51, Building 825/GRA 61, GRA 53, GRA 63, GRA 65, and Pier 55 in June 2010, and Buildings 593 and 799 and GRA 55 in August 2010. Three radiological sites (Buildings 589, 593, and 643) were identified at Parcel II and addressed under the Navy's radiological program.

DTSC, the Water Board, California Department of Public Health, and U.S. EPA concurred that no further action was required at these three sites in March 1996. These response actions are documented in the Final Record of Decision/Remedial Action Plan, Investigation Area A2, Former North Building Ways Area, Former Mare Island Naval Shipyard, Vallejo, California dated August 24, 2010.

All or portions of four solid waste management units (SWMUs) were identified within Investigation Area A2. In March 1996, DTSC issued a letter concurring with the no further action determinations for two (SWMU 2 – Building 593 Radiological Materials Storage Area and SWMU 108 – Building 593 Areas of Potential Radium Releases) that were closed under the Navy's radiological program. The portions of the two remaining SWMUs (SWMU 93 – Storm Sewer System and SWMU 106 – Sanitary Sewer System) within IA A2 were evaluated as part of the overall investigation of IA A2. DTSC signed the Final ROD for Investigation Area A2 in August 2010 concurring that no further action is required with respect to this Investigation Area, which includes these SWMUs.

Parcels X-B(1) and X-B(2) consist of approximately 7.8 acres of land in the southwestern portion of Mare Island. Parcel X-B(1) contains building A172 and a portion of building A166A. Parcel X-B(2) contains the majority of buildings A151 and A152. These buildings are non-residential structures, each of which was constructed prior to 1978. The parcel is currently vacant and zoned for Open Space.

The Horse Stables Area (HSA) partially overlaps with Parcel X-B(1). Abrasive blast materials (ABM) were removed as part of two removal actions from this area. DTSC concurred that no further action is necessary to address chemical constituents for the overlap portion of the HSA and the transfer parcel X-B(1) in May 2010.

A visual survey was completed in 2010 that did not indicate the presence of munitions and explosives of concern or munitions debris (Weston, 2010, Visual Survey for MEC at WMA Buildings A-149, A-150, A151, A152, A166A and A172 Located within Transfer Parcels X-B(1), X-B(2) and X-B(3)). Additionally, no munitions or explosives of concern or munitions debris were encountered during the removal actions associated with parcel X-B(1). DTSC concurred that no further action is necessary to address MEC or MDAS in transfer parcels X-B(1) and X-B(2) in May 2010.

The *Sanitary Sewage Treatment Plant (SSTP) Outfall of Parcel I* consists of approximately 5.7 acres of land submerged beneath San Pablo Bay off the western shore of Mare Island. There is a 30-inch concrete outfall pipe that terminates within this parcel. A Remedial Investigation (RI), Feasibility Study (FS) and Remedial Action Plan (RAP) were prepared to address elevated levels of metals and PCBs detected in sediment. Dredge excavation and offsite disposal of sediment was conducted in June 2002 and December 2009 to address these contaminants. Sampling results in the area indicate no further action is necessary to address chemical constituents in the SSTP

Outfall portion of Parcel I. DTSC approved the Completion Report documenting implementation of these remedial actions in May 2010.

The U.S. Navy developed a FOST for Parcels II, X-B(1), X-B(2), and the Sanitary Sewage Treatment Plant Outfall of Parcel I to document that environmental condition requirements and notifications for hazardous substances, petroleum products, and other regulated materials on the properties have been satisfied and that the parcels are suitable for transfer from Federal ownership. DTSC and the Water Board reviewed the draft and draft final versions of the FOST and provided comments. The U.S. Navy revised the FOST and submitted a redline/strikeout version of the Final FOST to DTSC and the Water Board for review. DTSC and the Water Board find the changes made to the Final FOST acceptable and concur with the FOST.

DTSC and the Water Board reserve the right to address any appropriate environmental or human health related issues, should additional information concerning the environmental condition of the property become available in the future. In the event of a newly discovered release, the owner of the parcel shall notify DTSC and the Water Board within 30 days and the no further action determination will be reevaluated to decide whether any corrective action is required.

If you have any questions, please contact Janet Naito of my staff at (510) 540-3833 or jnaito@dtsc.ca.gov.

Sincerely,

Barbara J. Cook

Barbara J. Cook, P.E.
Acting Assistant Deputy Director
Brownfields and Environmental Restoration Program – Berkeley Office

Enclosure

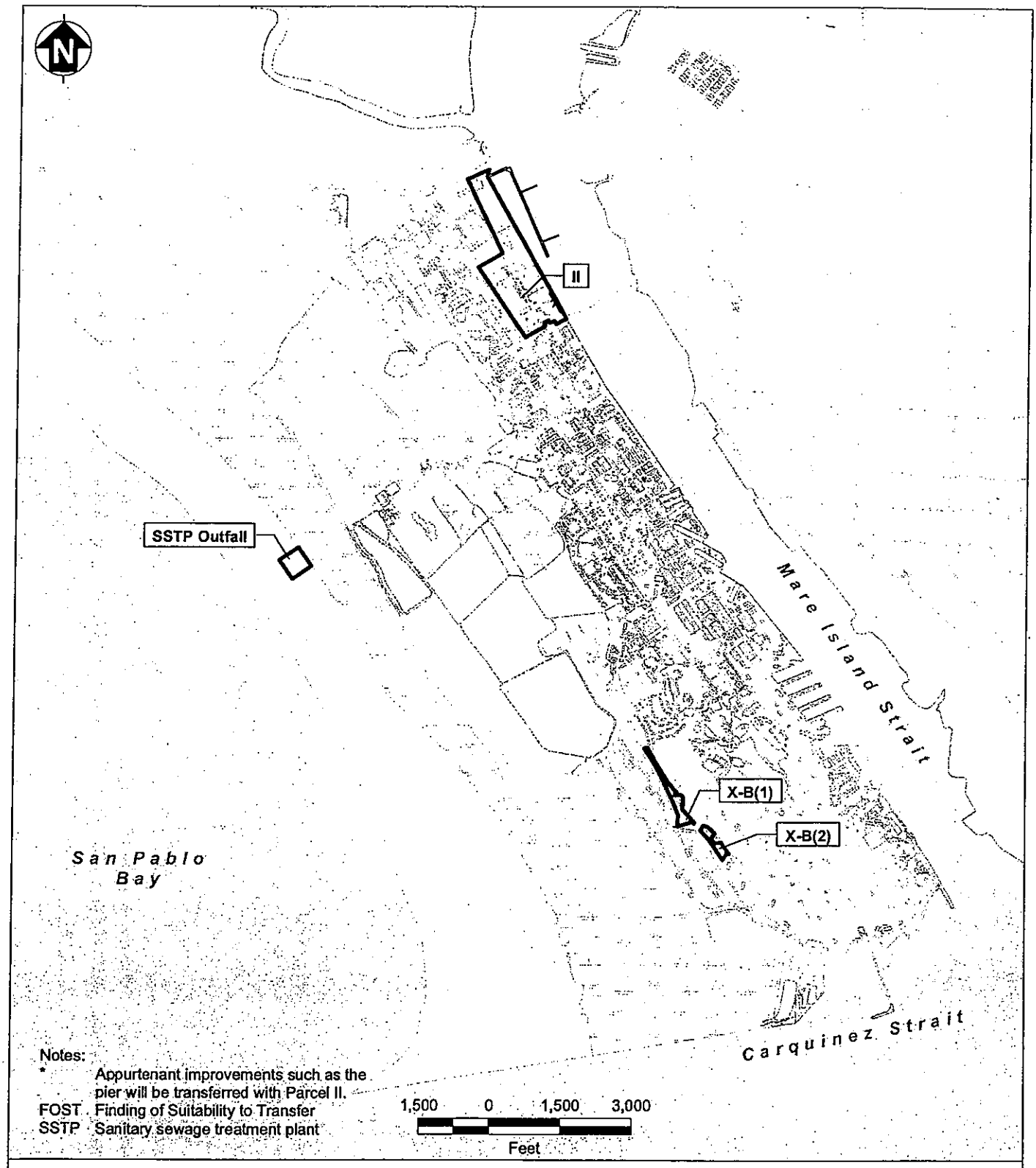
cc: See next page

cc: Elizabeth Wells (via electronic mail to: Ewells@waterboards.ca.gov)
San Francisco Bay Regional Water Quality Control Board

Tami Nakahara (via electronic mail to: TNakahar@ospr.dfg.ca.gov)
CA Department of Fish and Game

Carolyn D'Almeida (via electronic mail to: dAlmeida.carolyn@epamail.epa.gov)
U. S. Environmental Protection Agency

Brooks Pauly (via electronic mail to: brooks.pauly.ctr@navy.mil)
Department of the Navy
BRAC Program Management Office West



Parcels Subject to the FOST

Appurtenant Improvement to Parcel II*

Building/Structure

Road

Site Feature

Wetland

Mudflat

Water

ChaduxTt JV

Former Mare Island Naval Shipyard, California

Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 2

PARCELS SUBJECT TO THE FINDING OF SUITABILITY TO TRANSFER

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ATTACHMENT 4
RESOURCE CONSERVATION AND RECOVERY ACT CORRECTIVE ACTION COMPLETE DETERMINATION PACKAGE

TABLE OF CONTENTS

Department of Toxic Substances Control

Linda S. Adams
Secretary for
Environmental Protection

Mazlar Movassaghi
Acting Director
700 Heinz Avenue
Berkeley, California 94710-2721

Arnold Schwarzenegger
Governor

August 31, 2010

Anthony Megliola
Department of the Navy
BRAC Program Management Office West
1455 Frazee Road, Suite 900
San Diego, California 92108

Dear Mr. Megliola:

The Department of Toxic Substances Control (DTSC) certifies no further remedial actions are necessary, terminates the RCRA Corrective Action and modifies the facility permit boundaries for Parcels II, X-B(1) and X-B(2), and Sanitary Sewage Treatment Plant (SSTP) Outfall of Parcel I. The enclosed map depicts the parcels and their location on the former Mare Island Naval Shipyard.

Parcel II consists of approximately 64 acres located in the northeastern portion of Mare Island. It is made up of the majority of Investigation Area A2. The eastern boundary of the parcel is the shoreline, which is defined as the mean high water line. Parcel II has two appurtenant structures (Fleet Reserve Pier and remnants of the former building ways and associated berthing) and seven buildings (Building 491, 589, 593, 641, 797, 799 and 825). The parcel contains upland habitat and tidal wetlands adjacent to Mare Island Strait and the approximately 40-acre former North Building Ways Area. The parcel is currently vacant. The General Plan designation is for Open Space – wetlands adjacent to Mare Island Strait and for Mixed Use – Planned Development for the remainder of the Parcel.

Actions to address petroleum hydrocarbons within IA A2 were conducted under the Water Board's Petroleum Corrective Action Program. On October 29, 2009, the Water Board issued a letter determining that no further actions related to petroleum hydrocarbons were required for the Former North Building Ways area within IA A2. The Navy addressed polychlorinated biphenyl (PCB) releases at IA A2 through its PCB Program under the oversight of EPA. Three radiological sites (Buildings 589, 593, and 643) were identified at Parcel II and addressed under the Navy's radiological program. DTSC, the Water Board, California Department of Public Health, and U.S. EPA concurred that no further action was required at these three sites in March 1996. These response actions are documented in the Final Record of Decision/Remedial Action

Plan, Investigation Area A2, Former North Building Ways Area, Former Mare Island Naval Shipyard, Vallejo, California dated August 24, 2010.

All or portions of four solid waste management units (SWMUs) were identified within Investigation Area A2. In March 1996, DTSC issued a letter concurring with the no further action determinations for two (SWMU 2 – Building 593 Radiological Materials Storage Area and SWMU 108 – Building 593 Areas of Potential Radium Releases) that were closed under the Navy's radiological program. The portions of the two remaining SWMUs (SWMU 93 – Storm Sewer System and SWMU 106 – Sanitary Sewer System) within IA A2 were evaluated as part of the overall investigation of IA A2. DTSC signed the Final ROD for Investigation Area A2 concurring that no further action is required with respect to this Investigation Area, which includes these SWMUs.

Parcels X-B(1) and X-B(2) consist of approximately 7.8 acres of land in the southwestern portion of Mare Island. Parcel X-B(1) contains building A172 and a portion of building A166A. Parcel X-B(2) contains the majority of buildings A151 and A152. These buildings are non-residential structures, each of which was constructed prior to 1978. The parcel is currently vacant and zoned for Open Space.

The Horse Stables Area (HSA) partially overlaps with Parcel X-B(1). Abrasive blast materials (ABM) were removed as part of two removal actions from this area. No visible abrasive blast material remained at the HSA after the removal actions. Sampling results within Parcel X-B(1) indicate that response actions addressed metals to standards appropriate for unrestricted use of the property. In its March 4, 2010 letter, DTSC concurred that no further action is necessary to address chemical constituents for the overlap portion of the HSA and the transfer parcel X-B(1).

A visual survey was completed in 2010 that did not indicate the presence of munitions and explosives of concern or munitions debris (Weston, 2010, Visual Survey for MEC at WMA Buildings A-149, A-150, A151, A152, A166A and A172 Located within Transfer Parcels X-B(1), X-B(2) and X-B(3)). Additionally, no munitions or explosives of concern or munitions debris were encountered during the removal actions associated with parcel X-B(1) (Weston, 2010, Final Time-Critical Removal Action Completion Report, Horse Stables Area). In its March 4, 2010 letter, DTSC concurred that no further action is necessary to address MEC or MDAS in transfer parcels X-B(1) and X-B(2).

The *Sanitary Sewage Treatment Plant (SSTP) Outfall of Parcel I* consists of approximately 5.7 acres of land submerged beneath San Pablo Bay off the western shore of Mare Island. There is a 30-inch concrete outfall pipe that terminates within this parcel. A Remedial Investigation (RI), Feasibility Study (FS) and Remedial Action Plan (RAP) were prepared to address elevated levels of metals and PCBs detected in sediment. Dredge excavation and offsite disposal of sediment was conducted in June 2002 and December 2009 to address these contaminants. DTSC approved the Completion Report documenting implementation of these remedial actions on May 27,

2010. Sampling results in the area indicate no further action is necessary to address chemical constituents in the SSTP Outfall portion of Parcel I.

A notice of public comment period for the Draft Final Finding of Suitability to Transfer (FOST) document containing a copy of the draft RCRA Corrective Action Complete Determination and draft California Environmental Quality Act (CEQA) Notice of Exemption was published in a newspaper of local circulation on May 17, 2010. A fact sheet was mailed to interested community members for a 45-day public comment period which began on May 17, 2010 and ended on July 01, 2010. No comments were received on the Corrective Action Complete Determination or CEQA Notice of Exemption. Comments were received from one community member on the FOST and they are addressed in both the Final Record of Decision and Final FOST documents. Based upon our review of the completed environmental and human health investigations and evaluations, remedial and corrective actions, and the related public review process, DTSC hereby terminates the RCRA Corrective Action within Parcels II, X-B(1) and X-B(2), and Sanitary Sewage Treatment Plant (SSTP) Outfall of Parcel I pursuant to Health and Safety Code Chapter 6.5 and certifies, pursuant to California Health and Safety Code Chapter 6.8, that no further corrective action is necessary for these parcels.

DTSC reserves the right to address any appropriate environmental or human health related issues, should additional information concerning the environmental condition of the property become available in the future. In the event of a newly discovered release, the owner of the parcel shall notify DTSC within 30 days and the no further action determination will be reevaluated to decide whether any corrective action is required.

If you have any questions, please contact Janet Naito of my staff at (510) 540-3833 or jnaito@dtsc.ca.gov.

Sincerely,

Barbara J. Cook, P.E.
Acting Assistant Deputy Director
Brownfields and Environmental Restoration Program – Berkeley Office

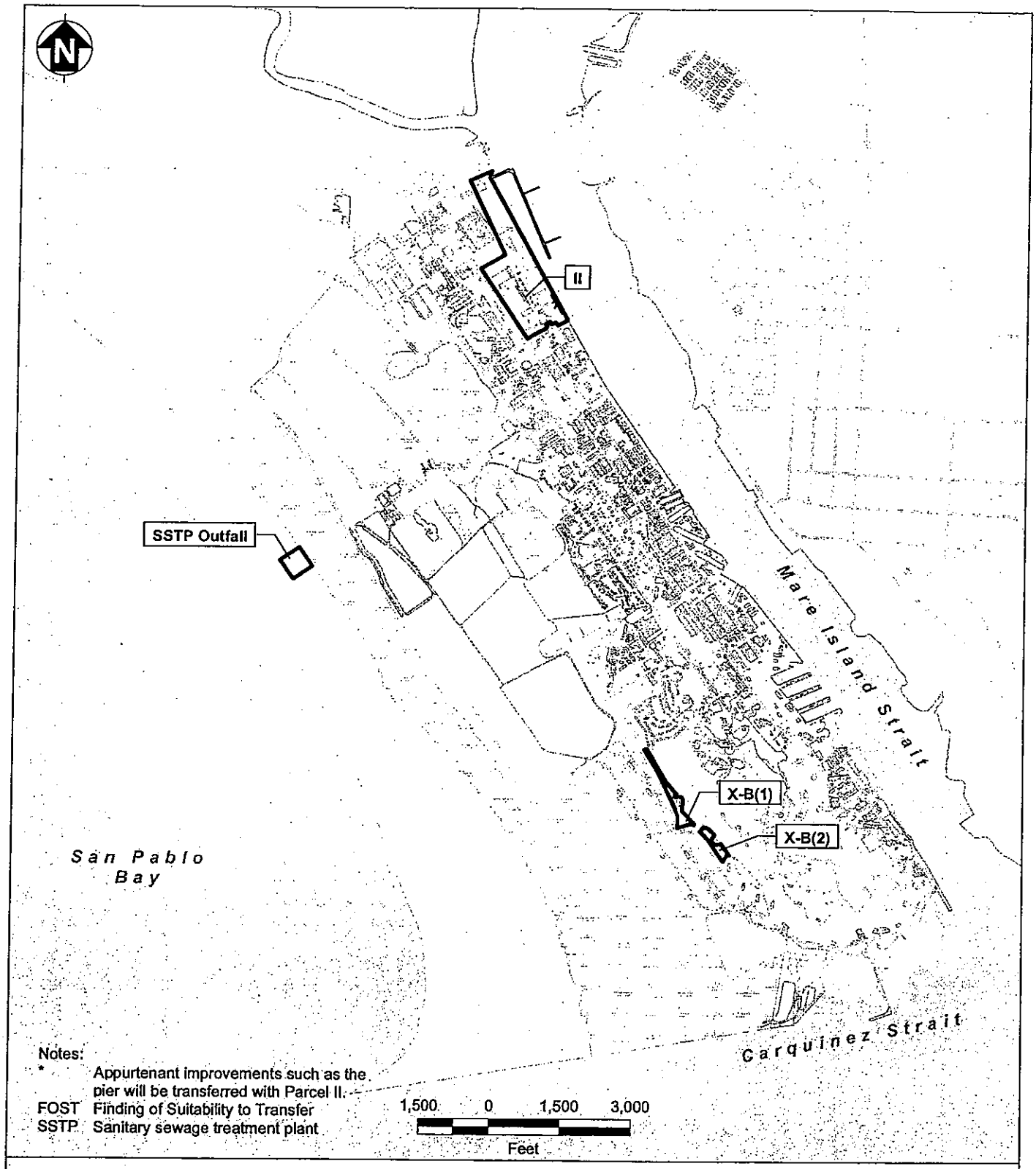
cc: See next page

cc: Elizabeth Wells (via electronic mail to: Ewells@waterboards.ca.gov)
San Francisco Bay Regional Water Quality Control Board

Tami Nakahara (via electronic mail to: TNakahar@ospr.dfg.ca.gov)
CA Department of Fish and Game

Carolyn D'Almeida (via electronic mail to: dAlmeida.carolyn@epamail.epa.gov)
U. S. Environmental Protection Agency

Brooks Pauly (via electronic mail to: brooks.pauly.ctr@navy.mil)
Department of the Navy
BRAC Program Management Office West



Notes:

* Appurtenant improvements such as the pier will be transferred with Parcel II.

FOST Finding of Suitability to Transfer

SSTP Sanitary sewage treatment plant

Parcels Subject to the FOST

Appurtenant Improvement to Parcel II*

Building/Structure

Road

Site Feature

Wetland

Mudflat

Water

ChaduxTt JV

Former Mare Island Naval Shipyard, California

Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 2

PARCELS SUBJECT TO THE FINDING OF SUITABILITY TO TRANSFER

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CALIFORNIA ENVIRONMENTAL QUALITY ACT
NOTICE OF EXEMPTION

To: Office of Planning and Research
State Clearinghouse
P.O. Box 3044
1400 Tenth St., Room 212
Sacramento, CA 95812-3044

From: Department of Toxic Substances Control
Brownfields and Environmental Restoration Program
Berkeley Office
700 Heinz Avenue
Berkeley, California 94710

I. Project Title: Corrective Action Complete Determination for Finding of Suitability to Transfer (FOST) Parcels II, X-B(1), X-B(2), and Sanitary Sewage Treatment Plant (SSTP) Outfall of Parcel I and Change of Facility Boundaries at former Mare Island Naval Shipyard

II. Project Location: Mare Island is located on the Mare Island peninsula that extends south into San Pablo Bay, 25 miles northeast of San Francisco. Parcel II is located in the northeastern portion of Mare Island, Parcels X-B(1), X-B(2) are located in the southwestern portion of Mare Island, and the SSTP Outfall of Parcel I is located within submerged land off the western shore of Mare Island.

Project Description: The California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) has made a determination that corrective action has been completed for the FOST Parcels II, X-B(1), X-B(2), and SSTP Outfall of Parcel I, owned by the United States Department of the Navy (Navy). These parcels consist of approximately 77.5 acres located at the former U.S. Navy Mare Island Naval Shipyard (MINS) in Vallejo, Solano County, California. These parcels are subject to corrective action requirements of the California Hazardous Waste Control Law and the federal Resource Conservation and Recovery Act (RCRA) because they were part of the property of the MINS, which is an inactive RCRA hazardous waste facility. MINS had a RCRA permit. The RCRA corrective action requirements for the parcels have been completed through investigation and cleanup actions overseen by DTSC, the Regional Water Quality Control Board, San Francisco Bay Region (Water Board), and the United State Environmental Protection Agency (EPA) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). This RCRA corrective action complete determination allows the Navy to transfer the parcels to new owners without transferring the associated RCRA corrective action liability. There are no additional physical activities associated with this corrective action complete determination by DTSC. The Navy has developed a Draft Final FOST document for these parcels.

All environmental studies and remedial action under CERCLA necessary to protect human health and the environment with respect to hazardous substances on the properties have been taken. On this basis, DTSC finds that RCRA corrective action is complete for these parcels and the RCRA facility boundary should be changed.

Name of Public Agency Approving Project: California Environmental Protection Agency, Department of Toxic Substances Control

Name of Person or Agency Carrying Out Project: United States Department of Navy
Exemption Status:

☐ Class 30 Categorical Exemption: Cal. Code Regs., tit. 14, §15330
☒ General Rule: Cal. Code Regs., tit. 14, §15061(b)(3)

Reasons Why Project is Exempt:

DTSC has determined that the project is exempt from the application of the California Environmental Quality Act (CEQA) and the Guidelines for the following reasons:

1. The project does not involve any physical activities at the former MINS. The project is an administrative decision by DTSC that previously completed investigations and cleanup activities conducted under the oversight of DTSC, Water Board and U.S. EPA on the transferring parcels identified in the FOST have satisfied Corrective Action requirements under RCRA and the California Hazardous Waste Control Law. The boundary defining the former MINS is being modified to exclude the property being transferred. No offsite impacts will occur as a result of moving the facility boundaries. It can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment.
2. The project activity is covered by the general exemption rule (as provided in California Code of Regulations, title 14, section 15061(b)(3)) that the California Environmental Quality Act (CEQA) applies only to projects which have potential for causing a significant effect on the environment.

Evidence to support the above reasons is documented in the project file record, available for inspection at:

Department of Toxic Substances Control
Brownfields and Environmental Restoration Program
Berkeley Office
700 Heinz Avenue
Berkeley, California 94710

APPROVAL:

Barbara J. Cook		5/31/2010
Performance Manager Signature		Date
Barbara J. Cook	Acting Assistant Deputy Director	(510) 540-3843
Performance Manager Name (Print)	Performance Manager Title (Print)	Phone #

TO BE COMPLETED BY OPR/SCH ONLY Date NOE Filed:

ATTACHMENT 5
HAZARDOUS SUBSTANCES NOTIFICATION TABLE

ATTACHMENT 5: HAZARDOUS SUBSTANCES NOTIFICATION TABLE

Parcel Number	Building Number	Area Type	Hazardous Substance [a,b]	Reportable Quantity [a]	CAS Number [a]	Quantity Stored, Released, or Disposed [c]	Date Stored, Released, or Disposed [c]	RCRA Waste Code [a]
II	Multiple [d]	Electrical substations, Pier GRAs	PCBs	NA	NA	Unknown	Unknown	NA
	589, 593, and 643	Radioactive storage (589), decontamination (593), and liquid solidification facilities (643)	Radium-226 [e]	0.1 curie	Atomic No. 88	Unknown	Unknown	NA
			Thorium-232 [e]	0.001 curie	Atomic No. 90	Unknown	Unknown	NA
			Cesium-137 [e]	1 curie	Atomic No. 55	Unknown	Unknown	NA
			Cobalt-60 [e,f]	10 curies	Atomic No. 27	Unknown	Unknown	NA
X-B(1)	NA	Horse Stables Area	ABM [g]	NA	NA	Unknown	Unknown	NA
SSTP Outfall	NA	Tidal mudflat	PCBs	NA	NA	Unknown	Unknown	NA
	NA	Tidal mudflat	Mercury	1 pound	7439-97-6	Unknown	Unknown	U151

Notes:

a This table was prepared in accordance with 40 CFR 373 and 40 CFR 302.4. The substances which do not have chemicals-specific break down (and associated annual reportable quantity) are not listed in 40 CFR 302.4, and therefore have no corresponding CAS number, no regulatory synonyms, no RCRA waste numbers, and no reportable quantities. Hazardous substances listed in this table were compiled based on known contamination at the sites.

b The Property may contain pesticide residue from pesticides that have been applied in the management of the Property. The Grantor knows of no use of any registered pesticide in a manner inconsistent with its labeling and believes that all applications were made in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA - 7 U.S.C. Sec. 136, et seq.), its implementing regulations, and according to the labeling provided with such substances. It is the Grantor's position that it shall have no obligation under the covenants provided pursuant to Section 120(h)(3)(A)(ii) of CERCLA, 42 U.S.C. Sections 9620(h)(3)(A)(ii), for the remediation of legally applied pesticides.

c The quantity stored, released, or disposed, and the date stored, released, or disposed, is unknown because documentation related to storage, release, or disposal of these hazardous substances was not available during records searches for the property.

d Thirteen PCB sites (Buildings 589, 591, 593, 641, 643, 799, GRA 53, 55, 63, 65, Building 797/GRA 51, Building 825/GRA 61, and Pier 55) were identified within Parcel II, where storage, release, or disposal of PCBs has been identified.

e The listed radioactive isotope includes its daughter products.

f No detectable levels of cobalt-60 were measured at Building 593.

g Abrasive blast material, or "greensand," typically consists of the following metals: chromium, copper, nickel, tributyltin, and zinc.

ABM Abrasive blast material
CAS Chemical abstract system
CERCLA Comprehensive Environmental Response, Compensation and Liability Act of 1980
CFR *Code of Federal Regulations*
GRA Grounded rocker arm
NA Not available
PCB Polychlorinated biphenyl
RCRA Resource Conservation and Recovery Act
SSTP Sanitary sewage treatment plant
U.S.C. United States Code

ATTACHMENT 6
PETROLEUM PRODUCTS NOTIFICATION TABLE

ATTACHMENT 6: PETROLEUM PRODUCTS NOTIFICATION TABLE

Parcel Number	Building Number	Area Type	Petroleum Products [a]	Dates of Operation [b]	Activities Conducted at Site
II	641	North Fire Station	Oil, unknown quantity [c]	5/21/1992 [c]	Release [c]
	Pier 55	Pier -- Berthing	Oil, 1 gallon [d]	2/1/1989 [d]	Release [d]
	NA	Former North Building Ways Area	TPH-mr and TPH-dr, unknown quantities [e]	Early 1940s through early 1950s [e]	Release [e]

Notes:

a Includes only petroleum products that fall within the scope of the CERCLA petroleum exclusion set forth in CERCLA Section 101(14).

b Dates of specific spills are provided when known, otherwise the dates of operation are provided.

c Unknown quantity of oil spilled on concrete at Building 641, as identified in the basewide EBS (Navy 1994).

d One gallon of oil spilled on Pier 55, as identified in the basewide EBS (Navy 1994).

e Petroleum products listed for the Former North Building Ways Area were compiled based on known contamination at the site; however, the quantity of petroleum products released is unknown.

CERCLA Comprehensive Environmental Response, Compensation and Liability Act of 1980
EBS Environmental baseline survey
NA Not applicable
TPH-dr Total petroleum hydrocarbons, diesel range
TPH-mr Total petroleum hydrocarbons, motor oil range

Source:

Department of the Navy (Navy). 1994. "Final Basewide Environmental Baseline Survey/Community Environmental Response Facilitation Act Report for Mare Island Naval Shipyard, Volume II." Prepared by Mare Island Naval Shipyard Code 106.4. December 15.

EXHIBIT "C"

HAZARDOUS SUBSTANCES NOTIFICATION TABLE

Parcel Number	Building Number	Hazardous Substance [a,b]	Reportable Quantity [a]	CAS Number [a]	Quantity Stored, Released, or Disposed [c]	Date Stored, Released, or Disposed [c]	RCRA Waste Code [a]	Action Taken
II	Multiple [d]	PCBs	NA	NA	Unknown	Unknown	NA	Abatement conducted
	589, 593, and 643	Radium-226 [e]	0.1 curie	Atomic No. 88	Unknown	Unknown	NA	Material Removed
		Thorium-232 [e]	0.001 curie	Atomic No. 90	Unknown	Unknown	NA	Material Removed
		Cesium-137 [e]	1 curie	Atomic No. 55	Unknown	Unknown	NA	Material Removed
		Cobalt-60 [e,f]	10 curies	Atomic No. 27	Unknown	Unknown	NA	Material Removed
X-B(1)	NA	ABM [g]	NA	NA	Unknown	Unknown	NA	Soil Removed

Notes:

a This table was prepared in accordance with 40 CFR 373 and 40 CFR 302.4. The substances which do not have chemicals-specific break down (and associated annual reportable quantity) are not listed in 40 CFR 302.4, and therefore have no corresponding CAS number, no regulatory synonyms, no RCRA waste numbers, and no reportable quantities. Hazardous substances listed in this table were compiled based on known contamination at the sites.

b The Property may contain pesticide residue from pesticides that have been applied in the management of the Property. The Grantor knows of no use of any registered pesticide in a manner inconsistent with its labeling and believes that all applications were made in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA - 7 U.S.C. Sec. 136, et seq.), its implementing regulations, and according to the labeling provided with such substances. It is the Grantor's position that it shall have no obligation under the covenants provided pursuant to Section 120(h)(3)(A)(ii) of CERCLA, 42 U.S.C. Sections 9620(h)(3)(A)(ii), for the remediation of legally applied pesticides.

c The quantity stored, released, or disposed, and the date stored, released, or disposed, is unknown because documentation related to storage, release, or disposal of these hazardous substances was not available during records searches for the property.

d Thirteen PCB sites (Buildings 589, 591, 593, 641, 643, 799, GRA 53, 55, 63, 65, Building 797/GRA 51, Building 825/GRA 61, and Pier 55) were identified within Parcel II, where storage, release, or disposal of PCBs has been identified.

e The listed radioactive isotope includes its daughter products.

f No detectable levels of cobalt-60 were measured at Building 593.

g Abrasive blast material, or "greensand," typically consists of the following metals: chromium, copper, nickel, tributyltin, and zinc.

ABM Abrasive blast material
CAS Chemical abstract system
CERCLA Comprehensive Environmental Response, Compensation and Liability Act of 1980
CFR *Code of Federal Regulations*
GRA Grounded rocker arm
PCB Polychlorinated biphenyl
NA Not available
RCRA Resource Conservation and Recovery Act
SSTP Sanitary sewage treatment plant
U.S.C. United States Code

EXHIBIT "D"

LEGAL DESCRIPTION OF CONSERVATION AREA WITHIN PARCEL II

LEGAL DESCRIPTION
FOR
CONSERVATION AREA 1
MARE ISLAND, VALLEJO, CALIFORNIA

A tract of land being a portion of the Former Mare Island Shipyard lying in the City of Vallejo, Solano County, State of California being described as follows:

A portion of Public Trust Parcel II as described in the Mare Island Property Settlement and Exchange Agreement between the State of California and the City of Vallejo on pages 55 through 59 as recorded in Deed Document Number 2002-00037955 in the Official Records of Solano County on March 26, 2002; and a portion of Trust Termination Parcel II as described in Mare Island Property Settlement and Exchange Agreement between the State of California and the City of Vallejo on pages 134 and 135 as recorded in Deed Document Number 2002-00037955 in the Official Records of Solano County on March 26, 2002, and a portion of Public Trust Parcel XV as described in the Mare Island Property Settlement and Exchange Agreement between the State of California and the City of Vallejo on pages 89, 90, and 91as recorded in Deed Document Number 2002-00037955 in the Official Records of Solano County on March 26, 2002; also said Trust Termination Parcel II and said Public Trust Parcel II comprising all of EDC Parcel II is shown on Record of Survey Map filed in Book 24, Surveys, Page 74, Solano County Records, Solano County, and corrected by a certificate of Correction filed 3/12/2002 at Series Number 2002-31491, Solano County, State of California, and this tract of land is more particularly described as follows:

Commencing for a Point of Reference at the northeasterly corner of said Public Trust Parcel II and being the Point of Beginning for said Public Trust Parcel II:

(I) thence along the northeasterly boundary line of said Public Trust Parcel II and the northeasterly boundary line of said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S11°02'09"W (Record per Deed Document Number 2002-00037955 = S11°02'09"E is in error), 161.83 feet;

(II) thence continuing along the northeasterly boundary line of said Public Trust Parcel II and the northeasterly boundary line of said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S30°17'51"E, 21.43 feet to the **POINT OF BEGINNING** of this Legal Description;

1. thence from said Point of Beginning and leaving the northeasterly boundary line of said Public Trust Parcel II and the northeasterly boundary line of said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S65°45'19"W, 160.61 feet;

LEGAL DESCRIPTION
FOR
CONSERVATION AREA 1
MARE ISLAND, VALLEJO, CALIFORNIA
(Continued)

2. thence through said Public Trust Parcel II and through said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S19°37'39"E, 156.21 feet;

3. thence continuing through said Public Trust Parcel II and through said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S64°57'03"W, 228.71 feet to the intersection of the easterly boundary line of said Public Trust Parcel XV;

4. thence along said easterly boundary line of said Public Trust Parcel XV. S26°55'36"E, 762.57 feet;

5. thence leaving said easterly boundary line of said Public Trust Parcel XV and and through said Public Trust Parcel II and through said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S30°40'08"E, 149.39 feet;

6. thence through said Public Trust Parcel II and crossing the southwesterly boundary line of said Public Trust Parcel II and into and through the lands of said Trust Termination Parcel II and EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S40°17'29"E, 584.20 feet;

7. thence through said Trust Termination Parcel II and through said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Page 74, S41°28'26"E, 143.72 feet;

8. thence through said Trust Termination Parcel II and through said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Page 74, S36°49'09"E, 55.39 feet to the terminus of course number 17 on the southwesterly boundary line of said Public Trust Parcel II as described on page 56 of said Public Trust Parcel II as recorded in said Deed Document Number 2002-00037955 in the Official Records of Solano County on March 26, 2002;

9. thence through said Public Trust Parcel II and through said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S41°12'12"E, 74.44 feet;

LEGAL DESCRIPTION
FOR
CONSERVATION AREA 1
MARE ISLAND, VALLEJO, CALIFORNIA
(Continued)

10. thence through said Public Trust Parcel II and through said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S26°58'15"E, 87.80 feet;

11. thence through said Public Trust Parcel II and through said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S18°00'47"E, 97.36 feet;

12. thence through said Public Trust Parcel II and through said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S3°43'40"E, 107.05 feet;

13. thence through said Public Trust Parcel II and through said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S6°37'08"W, 135.25 feet;

14. thence through said Public Trust Parcel II and through said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S31°22'35"E, 518.57 feet;

15. thence through said Public Trust Parcel II and through said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, N64°47'45"E, 79.26 feet;

16. thence through said Public Trust Parcel II and through said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S29°58'09"E, 60.86 feet;

17. thence through said Public Trust Parcel II and through said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S21°52'48"E, 291.39 feet;

18. thence through said Public Trust Parcel II and through said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S83°55'49"E, 205.03 feet;

LEGAL DESCRIPTION
FOR
CONSERVATION AREA1
MARE ISLAND, VALLEJO, CALIFORNIA
(Continued)

19. thence through said Public Trust Parcel II and through said EDC Parcel II as shown on said Record of Survey Map filed in Book 24, Surveys, Page 74, S31°53'44"E, 118.17 feet to the most northeasterly corner of Parcel One of the Mare Island Causeway as shown on Record of Survey Map filed in Book 25 of Surveys, Page 101 on July 21, 2003;

20. Thence along the northwesterly boundary line of said Mare Island Causeway as shown on said Record of Survey Map filed in Book 25 of Surveys, Page 101, N62°21'41"E, 90.00 feet, more or less, to the Shoreline of the Mare Island Strait based on the Mean High Water Line = 5.18 feet-NAD 88 Established in 1989 by the National Ocean Survey (NOS);

21. thence northwesterly along said Shoreline of the Mare Island Strait to the **Point of BEGINNING.** (Tie from the beginning of course # 21 to the **Point of BEGINNING** = N27°33'27"W, 3379.77').

The bearings and distances as mentioned in this legal description are based on the California State Coordinate System, Zone II, (NAD 1983).

All distances are ground, and to obtain grid distances multiply ground distance by 1.000062043

END OF DESCRIPTION

ALL AS SHOWN ON "PLAT TO ACCOMPANY LEGAL DESCRIPTION FOR CONSERVATION AREA 1 AT MARE ISLAND, VALLEJO CALIFORNIA", ATTACHED HERETO AND MADE APART HEREOF.

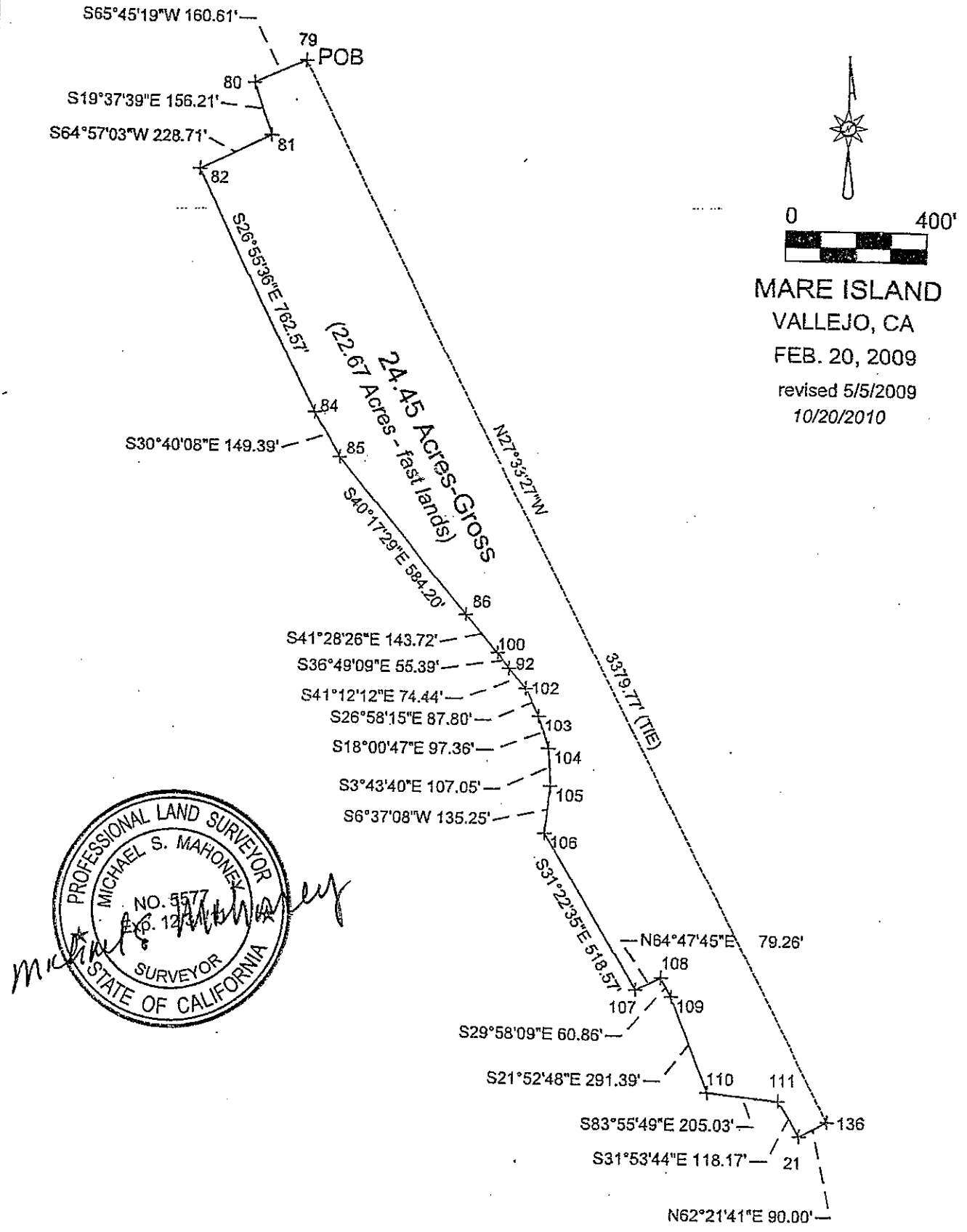
Said Tract of Land contains 22.67 acres, more or less.

PROFESSIONAL LAND SURVEYOR
MICHAEL S. MAHONEY
NO. 5577
Exp. 12/31/11
SURVEYOR
STATE OF CALIFORNIA

PREPARED BY:

Michael S. Mahoney
Michael S. Mahoney, P.L.S. 2/19/2009
Revised 5/5/2009 and 10/20/2010

REVIEWED & ACCEPTED
TAP CADASTRAL
DATE 12/21/2010



CLOSURE PLAT
(CONSERVATION AREA 1)

EXHIBIT "E"

BIOLOGICAL OPINION

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
Sacramento Field Office
3310 El Camino Ave., Suite 130
Sacramento, California 95821-6340

IN REPLY REFER TO:

In Reply Refer To:
1-1-95-F-143

May 23, 1997

Mr. John H. Kennedy
Head, Environmental Planning Branch
U.S. Department of the Navy
Engineering Field Activity, West
Naval Facilities Engineering Command
900 Commodore Drive
San Bruno, California 94066-5006

Subject: Endangered Species Formal Consultation on the Proposed Mare Island Naval Shipyard Disposal and Reuse, Solano County, California

Dear Mr. Kennedy:

This is in response to your request for formal consultation and conference on a proposal by the U.S. Department of the Navy (Navy), for disposal of Navy property and community reuse by the City of Vallejo (City) on Mare Island Naval Shipyard (MINSY) in Solano County, California. Your request for initiation of formal consultation was received by the U.S. Fish and Wildlife Service (Service) on September 12, 1995. This document includes the Service's biological opinion on the effects of that action on the endangered California clapper rail (*Rallus longirostris obsoletus*), endangered salt marsh harvest mouse (*Reithrodontomys raviventris*), and threatened delta smelt (*Hypomesus transpacificus*), as well as a conference opinion on the project effects on the proposed threatened Sacramento splittail (*Pogonicthys macrolepidotus*), in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act).

No critical habitat has been designated for the California clapper rail, salt marsh harvest mouse, or Sacramento splittail. Delta smelt critical habitat is contained within the "legal Delta" for the Sacramento-San Joaquin estuary, upstream of the project area. Therefore, this project will not adversely modify or destroy critical habitat for any of these species.

The Service has determined that the proposed action is not likely to adversely affect the endangered California brown pelican (*Pelecanus occidentalis californicus*), American peregrine falcon (*Falco peregrinus anatum*), California freshwater shrimp (*Syncaris pacifica*), threatened coastal population of the western snowy plover (*Charadrius alexandrinus nivosus*), proposed endangered soft bird's beak (*Cordylanthus mollis mollis*), and Suisun thistle (*Cirsium hydrophilum*). Therefore, these species are not addressed in this biological opinion.

This biological and conference opinion is based on (1) the Mare Island Naval Shipyard Disposal and Reuse Draft Environmental Impact Statement/Environmental Impact Report, dated August 1995 (DEIS); (2) a letter from the Navy to the Service dated April 11, 1997, describing revisions to the project description in the DEIS; (3) the Biological Opinion for the Endangered Species Formal Consultation on the Dredge Spoil Program at Mare Island Naval Shipyard, dated July 28, 1988 (Service File Reference 1-1-88-F-26); (4) the Memorandum of Understanding Between U.S. Fish and Wildlife Service and Mare Island Naval Shipyard, dated July 28, 1988 (MOU); (5) the Base Realignment and Closure Cleanup Plan for Mare Island Naval Shipyard, dated March 1, 1995 (BCP); (6) a letter from the California State Lands Commission (SLC) to the Service dated April 21, 1997; (7) a letter from the City to the Service dated April 17, 1997; (8) other information in Service files; and (9) additional oral and written communications between the Navy, Service, City, and SLC. A complete administrative record of this consultation is on file in the Service's Sacramento Field Office for Ecological Services.

CONSULTATION HISTORY

On September 12, 1995, the Service received the Navy's September 11, 1995, request for initiation of section 7 formal consultation, under the Act, for the proposed project. On February 12, 1996, the Navy provided the Service with additional information on the potential adverse effects of the proposed project on the threatened delta smelt and proposed threatened Sacramento splittail. On March 13, 1996, the Service provided the Navy with a draft biological and conference opinion for the proposed project for review by the Navy and City. On November 6, 1996, the Navy responded in writing to this draft opinion. On April 11, 1997, the Navy provided the Service with a revised project description and requested that the Service issue a final biological opinion for the project as revised.

BIOLOGICAL OPINION

Description of the Proposed Action

MINSY is located in the San Francisco Bay area on the western edge of Vallejo, and is situated on a flat peninsula approximately 3.5 miles long and one mile wide. The Navy currently owns a total of about 4600 acres at MINSY. Of the 4600 acres, approximately 1484 acres of MINSY is Federal surplus property, which the Navy is proposing to dispose from Federal ownership. The Navy would transfer approximately 192 acres of property to other Federal agencies to meet ongoing mission requirements of these agencies at MINSY. These Federal-to-Federal agency transfers would include about 161.8 acres to the Service's National Wildlife Refuge System, 18.16 acres to the U.S. Department of Army, 11.17 acres to the U.S. Forest Service, and 0.67 acres to the U.S. Coast Guard. Also, about 2924 acres of MINSY would automatically revert to the ownership of the State of California when the land is no longer needed for military purposes.

MINSY is bounded by Mare Island Strait on the east, San Pablo Bay on the west, Carquinez Strait on the south, and Napa Marsh and other marshlands on the north. The MINSY facility includes Mare Island, a causeway connecting Mare Island and Vallejo, the Roosevelt Terrace housing complex located off the peninsula, the main entrance, and a railroad spur which extends from the peninsula through Vallejo. MINSY currently contains about 960 buildings, totaling 10.5 million square feet, which were used for industrial, office, residential, educational, commercial, recreational, cultural, and institutional uses.

Pursuant to the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510) and specific base closure decisions approved by the U.S. Congress in September 1993, MINSY operationally closed on March 30, 1996. The Navy proposes to dispose of the non-reversionary Navy surplus property at MINSY in a manner that is consistent with the Mare Island Reuse Plan approved by the City in July 1994. The Navy action alternatives in the DEIS are the disposal of Federal surplus property at Mare Island from Federal ownership, or retention of the property in Federal ownership and caretaker status under the No Action Alternative. The City action in the DEIS is reuse of Federal surplus property at MINSY under the Mare Island Reuse Plan (Reuse Plan). The DEIS also evaluates two additional reuse alternatives, the Medium Density Alternative and the Open Space Alternative. Disposal of Federal surplus lands by the Navy will be a component of each of the proposed reuse alternatives by the City. MINSY is now in caretaker status under the administrative responsibility of the Navy's Engineering Field Activity West Office (EFA West).

The DEIS identifies 13 reuse areas on MINSY: (1) Reuse Area 1-North Light Industry (192 acres), (2) Reuse Area 2-Neighborhood Center (85 acres), (3) Reuse Area 3-Mixed Use: Office/Light Industry (111 acres), (4) Reuse Area 4-Historic Area (47 acres), (5) Reuse Area 5-Heavy Industry (119 acres), (6) Reuse Area 6-Farragut Village (107 acres), (7) Reuse Area 7-Developed Recreation (48 acres), (8) Reuse Area 8-Coral Sea Village (70 acres), (9) Reuse Area 9-Education/Office (101 acres), (10) Reuse Area 10-Marina/Residential (94 acres), (11) Reuse Area 11-Golf Course (172 acres), (12) Reuse Area 12-Regional Park (228 acres), and (13) Reuse Area 13-Recreation/Open Space (92 acres). Tidal and non-tidal wetlands and dredge disposal areas (1,594 acres) on MINSY are discussed and evaluated separately in the DEIS, and are not identified as reuse areas. In addition, the main entrance along State Route 37 and the Roosevelt Terrace residential complex along State Route 37 adjacent to White Slough are discussed and evaluated separately.

The proposed action of disposal of Federal surplus land and implementation of the preferred alternative for reuse under the Mare Island Reuse Plan would result in substantial industrial, commercial, and community reuse of MINSY. About 5.7 million square feet of nonresidential building space and 1836 residential units both on and off MINSY would exist at full buildout of the Reuse Plan. Approximately 18 miles of streets would be improved, and seven miles of new road would be built. Nine signalized traffic intersections would be constructed. Off-site improvements would include constructing a southern crossing and its approach, and redeveloping the Roosevelt Terrace Housing.

Under the preferred reuse alternative, the total number of residential units would increase from 1,083 units to 1,836 units at buildout, an approximately 59 percent increase. The projected population of MINSY at buildout would be 5175, including residents at Roosevelt Terrace, and the projected employment would be 9669 workers.

On July 28, 1988, the Service and Navy signed the MOU pursuant to the Biological Opinion prepared for the endangered species section 7 consultation (1-1-88-F-26) for the dredge spoil program at MINSY and also dated July 28, 1988. The MOU was signed to ensure compliance of the Navy's maintenance dredging program for Mare Island Strait with the Reasonable and Prudent Measures required in the Biological Opinion. Actions in the MOU included establishment of standards and conditions for maintenance dredging activities and management of dredge disposal ponds and establishment of a program for promoting the conservation of federally listed species, especially the salt marsh harvest mouse, on MINSY. The MOU included protection of endangered species habitat in perpetuity. The specific details of the Biological Opinion and the agreement identified in the MOU are hereby incorporated by reference. According to the DEIS, prior to actual disposal of State reversionary and Federal surplus lands and while they are under Navy caretaker status, the active and/or inactive dredge disposal ponds could be leased to the City or other entities for disposal of dredged material.

The western half of MINSY contains active and inactive dredge disposal ponds and other open space lands, including tidal and non-tidal wetlands. A significant portion of these lands were granted by the State of California (State) to the Federal government in 1854 when MINSY was originally established as a Federal military installation. This grant was conditioned on the continued use by the Federal government of the area for military purposes. Under the grant, the land reverts to the State when military operations of MINSY cease. According to the DEIS, the ownership of the western half of MINSY will revert to the State of California upon actual disposal of Federal surplus land by the Navy, as mandated in the State of California statute which granted the land to the Federal government. After reversion of the land to the State, the Navy asserts that the State will be required to consult with the Service under either section 7 or 10 of the Act on potential adverse effects to federally listed species and to facilitate the continued use of any of the active or inactive dredge disposal ponds. Similarly, the Navy proposes that any Federal or non-Federal entities which acquire lands with dredge ponds will be required to consult with the Service to operate the dredge ponds. The DEIS indicates that future compliance with requirements of the Act after actual land disposal will be the responsibility of the public or private entities proposing projects in disposed lands that may affect federally listed species and that the Navy will not be responsible for compliance with the Act by other public or private entities after the land has been turned over to them.

According to the BCP, there are 24 Installation Restoration Program (IRP) sites at MINSY which might represent a threat to human health or the environment as a result of past contamination from Navy activities. There are 143 Preliminary Assessment/Site Inspection sites which could become IRP sites after additional investigations are completed. Furthermore, portions of MINSY

contain unexploded ordnance and also could become IRP sites after further surveys. The BCP provides the status of ongoing environmental restoration programs and associated compliance and natural resources programs at MINSY. The BCP provides thorough evaluations and presentations of the status of various cleanup programs, but further evaluations and updates will be conducted based upon the dynamic circumstances of the environmental programs until full restoration at MINSY is accomplished. The specific details of the planning process, strategies, and master implementation schedules for the environmental restoration programs at MINSY identified in the BCP are hereby incorporated by reference into the project description for the proposed action. The DEIS and BCP do not evaluate potential adverse effects on listed or proposed species which could result from environmental cleanup programs such as the Navy's IRP. Prior to disposal of these areas to the City or other non-Federal entities and reversion to the State, the Navy will retain responsibility for remediation of contaminated areas within MINSY

The DEIS identifies the following impacts to endangered terrestrial species from potential activities in the reuse areas: (1) increased levels of disturbance and loss of endangered species habitat from human and pet use in wetland areas adjacent to Reuse Areas 6 and 8, (2) increased levels of predation from domestic and feral animals emanating from Reuse Areas 6 and 8 into adjacent endangered species habitat, (3) loss of salt marsh harvest mouse habitat resulting from development of Reuse Area 10, and (4) development of trails or access routes in adjacent endangered species habitat from increased recreational use of Reuse Areas 12 and 13. No other potential impacts to endangered terrestrial species or their habitat are identified in the DEIS for reuse areas. To avoid and minimize potential adverse impacts to federally listed or proposed species identified above and others identified during formal consultation with the Service, the Navy and City propose to implement a number of mitigation measures as part the Navy disposal and subsequent community reuse of MINSY by the City under the Mare Island Reuse Plan.

1. The following measures would be implemented to protect the endangered California clapper rail (clapper rail) and salt marsh harvest mouse (harvest mouse):

   (a) The Navy shall ensure that a detailed, active, annual, predator management plan of not to exceed 20 hours per week of field effort which effectively manages predators on all portions of MINSY is developed and implemented during caretaker status within 6 months after a Record of Decision has been certified on the Final Environmental Impact Statement/Environmental Impact Report (FEIS). The plan will continue indefinitely and be subject to review and approval by the Service. The City will implement an active predator management program of not to exceed 20 hours per week which effectively manages predators upon transfer of MINSY from the Navy to the City or other non-Federal entities. The City will be responsible for the annual predator management of each parcel as it is transferred from Navy ownership. The Navy will maintain responsibility for predator management on leased parcels, but may seek reimbursement from lessees for predator management actions on leased areas. The Navy will provide its Predator Management Plan to the City prior to any property transfer to assist the City in

meeting their requirement for providing predator management in the future. The plan shall include, but not be limited to, provisions for continuous monitoring and management of predators on MINSY by qualified predator management personnel. Personnel shall be experienced and/or trained in performing predator management activities in or adjacent to clapper rail or harvest mouse habitat. The Navy will ensure that during caretaker status, predator management personnel can operate on all Navy property necessary to complete their mission. Upon property transfer to the City or other non-Federal entities, the City will ensure that predator management personnel can operate on all City property. The City also will require subsequent property owners to allow access to predator management personnel as a condition of property transfer from the City to private entities. The Navy and City will fund predator management activities as part of their standard annual budgeting processes, consistent with all fiscal laws. Performance standards and associated contingency measures will be developed as part of the predator management plan.

(b) The Navy shall develop a detailed plan which effectively manages public access human use and activity during caretaker status in and adjacent to clapper rail or harvest mouse habitat on MINSY. The plan shall assure enforceability and maintenance of proposed public access to protect the clapper rail and harvest mouse during caretaker status. The City will be responsible for enforceability and maintenance of proposed human use management upon transfer of MINSY. This plan shall be subject to review and written approval by the Service within 6 months after the Record of Decision has been certified for the FEIS. The Navy will provide its Public Access Human Use Management Plan to the City prior to any property transfer to assist the City in meeting this requirement after the property is transferred to the City.

(c) Prior to implementation of any aspect of the Base Cleanup Plan, the Navy shall consult with the Service pursuant to section 7 of the Act to ensure that the proposed cleanup work is not likely to adversely affect clapper rails or harvest mice, or any other federally listed or proposed species. Should the Navy determine that any listed or proposed species are likely to be affected by the proposed cleanup work, the Navy shall initiate section 7 formal consultation with the Service.

(d) The Navy shall ensure that the local mosquito abatement district submits an annual work plan for their proposed mosquito abatement work on MINSY to the Service and the Navy each year. Prior to implementation of any aspect of an annual work plan, the Navy shall consult with the Service pursuant to section 7 of the Act to ensure that the proposed mosquito abatement work is not likely to adversely affect clapper rails or harvest mice, or any other federally listed or proposed species, on MINSY. Should the Navy determine that any listed or proposed species are likely to be affected by the proposed mosquito abatement work in the work plan, the Navy shall initiate section 7 formal consultation with the Service.

(e) The Navy will prepare legally-binding perpetual conservation easements or a similar real estate instrument to protect all nonreversionary Navy property on MINSY which is suitable habitat for the clapper rail or the harvest mouse prior to Navy disposal of such property from Federal ownership. The amount of these easements is anticipated to be about 81 acres. The language in the easements shall be subject to review and written approval by the Service. The easements shall be recorded prior to disposal of these areas from Federal ownership by the Navy. The easements shall ensure preservation and management of these lands for the protection of these endangered species and their habitat, regardless of any future changes in land ownership. A copy of the recorded easement documents shall be provided to the Service within 30 days of actual recordation.

2. To protect harvest mouse habitat, the Navy shall ensure that the purpose and objectives, as well as the standards and conditions established in the MOU between the Service and Navy and dated July 28, 1988, continue to be implemented for the management of dredge disposal ponds at MINSY while the facility is in caretaker status. The Navy shall adhere to this requirement under any future operational scenarios including, but not limited to, leasing during caretaker status prior to reversion of these properties to the State of California. The Navy shall consult with the Service if any changes in the scope and/or extent of dredge pond management beyond that identified in the MOU are proposed. The Navy also shall provide the Service with data on contaminant levels in dredged material proposed for placement in any dredge ponds to ensure that the material is not likely to affect harvest mice. The data shall be provided to the Service for review and written approval prior to placement of dredged material in any dredge pond at MINSY. The Navy shall advise the State of California regarding the presence of endangered and threatened species on reversionary property at the time of reversion.

3. The following measures shall be taken by the Navy and the City to protect the delta smelt and Sacramento splittail during caretaker status and subsequent community reuse:

(a) Prior to transfer or lease of the dry docks or any other area where in-water activities may adversely affect delta smelt or Sacramento splittail, the Navy shall inform the future owner or user that federally endangered or threatened fish species occasionally occur in the vicinity of the Mare Island Naval Shipyard and that an Endangered Species incidental take permit may be required from the Service, National Marine Fisheries Service, and California Department of Fish and Game. The following avoidance and minimization measures are typically included in such permits from the Service:

(1) Minimize the impacts on delta smelt resulting from the permanent loss of spawning and refugial habitat due to destruction of emersed plants caused by placement of rip-rap, or construction of intake or outtake structures, dredging or placing of piles by avoiding areas having emersed plants. If destruction of emersed plants through avoidance is not possible, then habitat shall be acquired, enhanced,

or created at a 3:1 ratio for the impacted areas, and maintained in perpetuity by DFG or another appropriate management group. To determine the proper area to be acquired, the total surface area of affected emersed plants shall be measured through underwater survey. A plan that details the extent of affected areas, and describes proposed replacement areas, shall be submitted to the Service for approval at least 30 days prior to soil excavation, placement of rip-rap, or construction of recreation facilities or intake and outtake structures. Upon approval, the plan shall be implemented within one year of the completion of any of these activities.

(2) All emergent and submergent vegetation shall be avoided to the maximum extent practicable. If there are unavoidable impacts on delta smelt resulting from the permanent loss of spawning and refugial habitat due to destruction of submersed aquatic plants, and habitat shall be acquired, enhanced, or created at a 3:1 ratio, based on total acres of habitat affected, for the impacted areas, and maintained in perpetuity by DFG or another appropriate management group. A plan that details the extent of affected areas, and describes proposed replacement areas, shall be submitted to the Service for approval at least 30 days prior to soil excavation, placement of rip-rap, or construction of recreation facilities or intake and outtake structures. Upon approval, the plan shall be implemented within one year of the completion of any of these activities.

(3) Minimize the impacts on delta smelt resulting from the killing or harassment of delta smelt adults, juveniles, and larvae by screening all diversions associated with any future actions, using a maximum approach velocity of 0.2 feet per second.

(4) Avoid impacts to delta smelt critical habitat resulting from disposal of dredge spoils by not disposing of any dredge spoils in the critical habitat area defined in the December 19, 1994, Federal Register (59 FR: 65256).

Species Account/Environmental Baseline

California Clapper Rail

The clapper rail was federally listed as endangered in 1970 (35 FR: 1604). A detailed account of the taxonomy, ecology, and biology of the California clapper rail is presented in the approved Recovery Plan for this species (Service 1984). Supplemental information is provided below.

Of the 193,800 acres of tidal marsh that bordered San Francisco Bay (Bay) in 1850, about 30,100 acres currently remain (Dedrick 1993). This represents an 84 percent reduction from historical conditions. Furthermore, a number of factors influencing remaining tidal marshes limit their habitat values for clapper rails. Much of the East Bay shoreline from San Leandro to Calaveras Point is rapidly eroding, and many marshes along this shoreline could lose their clapper rail populations in the future, if they have not already. In

addition, an estimated 600 acres of former salt marsh along Coyote Creek, Alviso Slough, and Guadalupe Slough, has been converted to fresh- and brackish-water vegetation due to freshwater discharge from south Bay wastewater facilities and is of lower quality for clapper rails. This conversion has at least temporarily stabilized as a result of the drought since the early 1990s.

The suitability of many marshes for clapper rails is further limited, and in some cases precluded, by their small size, fragmentation, and lack of tidal channel systems and other micro-habitat features. These limitations render much of the remaining tidal marsh acreage unsuitable or of low value for the species. In addition, tidal amplitudes are much greater in the south Bay than in San Pablo or Suisun bays (Atwater *et al.* 1979). Consequently, many tidal marshes are completely submerged during high tides and lack sufficient escape habitat, likely resulting in nesting failures and high rates of predation. The reductions in carrying capacity in existing marshes necessitate the restoration of larger tracts of habitat to maintain stable populations.

Throughout the Bay, the remaining clapper rail population is besieged by a suite of mammalian and avian predators. At least 12 native and 3 non-native predator species are known to prey on various life stages of the clapper rail (Albertson 1995). Artificially high local populations of native predators, especially raccoons, result as development occurs in the habitat of these predators around the Bay margins (J. Takekawa, pers. comm.). Encroaching development not only displaces lower order predators from their natural habitat, but also adversely affects higher order predators, such as coyotes, which would normally limit population levels of lower order native and non-native predators, especially red foxes (Albertson 1995). Hunting intensity and efficiency by raptors on clapper rails also is increased by electric power transmission lines, which criss-cross tidal marshes and provide otherwise-limited hunting perches (J. Takekawa, pers. comm.). Non-native Norway rats (*Rattus norvegicus*) long have been known to be effective predators of clapper rail nests (DeGroot 1927, Harvey 1988, Foerster *et al.* 1990). Placement of shoreline riprap favors rat populations, which results in greater predation pressure on clapper rails in certain marshes. These predation impacts are exacerbated by a reduction in high marsh and natural high tide cover in marshes.

The proliferation of non-native red foxes into tidal marshes of the South Bay since 1986 has had a profound effect on clapper rail populations. As a result of the rapid decline and almost complete elimination of rail populations in certain marshes, the San Francisco Bay National Wildlife Refuge (Refuge) implemented a predator management plan in 1991 (Foerster and Takekawa 1991) with an ultimate goal of increasing rail population levels and nesting success through management of red fox predation. This program has proven successful in increasing the overall south Bay populations from an all-time low (see below); however, it has been difficult to effectively conduct predator management over such a large area as the south Bay, especially with the many constraints associated with conducting the work in urban environments (J. Takekawa, pers. comm.).

Predator management for clapper rails is not being regularly practiced in the North Bay, and rail populations in this area remain susceptible to red fox predation. Red fox activity has been documented west of the Petaluma River and along Dutchman Slough at Cullinan Ranch (J. Collins, pers. comm.). Along Wildcat Creek near Richmond, where recent red fox activity has been observed, the rail population level in one tidal marsh area has declined considerably since 1987 (J. Evens, pers. comm.), even though limited red fox management was performed in 1992 and 1993 (J. Takekawa, pers. comm.).

Mercury accumulation in eggs is perhaps the most significant contaminant problem affecting clapper rails in San Francisco Bay, with the South Bay containing the highest mercury levels. Mercury is extremely toxic to embryos and has a long biological half-life. The Service collected data from 1991 and 1992 on mercury concentrations in rail eggs in the southern portion of the estuary and found that the current accumulation of mercury in rail eggs occurs at potentially harmful levels. The percentage of non-viable eggs ranged from 24 to 38 percent (mean = 29 percent).

The California clapper rail was listed as endangered primarily as a result of habitat loss. The factors described above have contributed to the more recent population reduction, which has occurred since the mid-1980s. Although Gill (1979) may have overestimated the total California clapper rail population in the mid-1970s at 4,200 to 6,000 birds, surveys conducted by the CDFG and the Service estimated that the clapper rail population was approximately 1,500 birds in the mid-1980s (Harvey 1988). In 1988, the total rail population was estimated to be 700 individuals, with 400-500 rails in the South Bay (Foerster 1989). The total rail population reached an estimated all-time historical low of about 500 birds in 1991, with about 300 rails in the South Bay (Service unpubl. data; E. Harding-Smith, pers. comm.). In response to predator management, the South Bay rail population has since rebounded from this lowest population estimate and is now estimated to be approximately 500 to 600 individuals (Service unpubl. data; J. Albertson, pers. comm.), while a conservative estimate of the north Bay population, including Suisun Bay, is 195-282 pairs (Evens et al. 1994). Although many factors are at work, predation by native and non-native predators, in conjunction with extensive habitat loss and fragmentation, are the current primary threats. With historic populations at Humboldt Bay, Elkhorn Slough, and Morro Bay now extinct, the Bay represents the last stronghold and breeding population of this subspecies.

Evens and Page (1983) concluded from research in a North Bay marsh that the clapper rail breeding season, including pair bonding and nest construction, may begin as early as February. Field observations in South Bay marshes suggest that pair formation also occurs in February in some areas (J. Takekawa, pers. comm.). The end of the breeding season is typically defined as the end of August, which corresponds with the time when eggs laid during renesting attempts have hatched and young are mobile.

Clapper rails have been observed breeding and foraging in tidal marshes in the western half of MINSY. Evens et al. (1994) detected clapper rails during the 1992 breeding season in the tidal marsh at the southwestern end of MINSY. Just north of MINSY, Evens et al. (1994) detected breeding clapper rails at

the mouth of Dutchman Slough on the western shore of the Napa River. Along the Napa River, breeding rails have been documented across from MINSY in the Wilson Avenue South/River Park tidal marshes along the eastern shore of the Napa River between the Napa River/State Highway 37 bridge and the Causeway Street bridge in Vallejo. Evens et al. (1994) also estimated a maximum of 15 pairs of rails in the White Slough tidal marshes north of the Roosevelt Terrace residential complex.

Salt Marsh Harvest Mouse

The harvest mouse was federally listed as endangered in 1970 (35 FR: 1604). A detailed account of the taxonomy, ecology, and biology of the salt marsh harvest mouse (harvest mouse) is presented in the approved Recovery Plan for this species (Service 1984). Supplemental information on the harvest mouse is provided below and in the Service's August 31, 1990, biological opinion on Corps permit application no. 15283E49, which is hereby incorporated by reference.

Harvest mice may be affected by mercury in the intertidal zone. Clark et al. (1992) found that harvest mice were captured only at sites where concentrations of mercury or PCBs were below specific levels in house mice (*Mus musculus*). Their results (Clark et al. 1992) seem to suggest a southern source of mercury contamination, with mercury an order of magnitude higher in livers of house mice at Calaveras Point than at any other point measured in the Bay.

High population numbers of harvest mice have been documented for the tidal marsh and non-tidal wetlands, including dredge disposal ponds, on the western half of MINSY. Harvest mice also are presumed to occur in three isolated tidal marshes on MINSY along the western shore of the Napa River and at the southeastern tip of the peninsula. Along the northwestern boundary of MINSY, harvest mice are known to occur in the extensive tidal marshes south of State Route 37. According to results from trapping surveys conducted since August 1994, a significant number of harvest mice are presumed to reside in this tidal marsh which is continuous with tidal marsh areas supporting harvest mice on MINSY. Harvest mice also are known to occur in the White Slough tidal marshes north of the Roosevelt Terrace residential complex.

Delta Smelt

Please refer to Service (1993, 1994a, 1994b) and DWR and Reclamation (1994) for additional information on the biology and ecology of the delta smelt. The delta smelt is a slender-bodied fish with a steely blue sheen on the sides and seems almost translucent (Moyle 1976). The delta smelt, which has a lifespan of one year, has an average length of 60 to 70 mm (about 2 to 3 inches) and is endemic to Suisun Bay upstream of San Francisco Bay through the Delta in Contra Costa, Sacramento, San Joaquin, and Solano counties, California. Historically, the delta smelt is thought to have occurred from Suisun Bay upstream to at least the city of Sacramento on the Sacramento River and Mossdale on the San Joaquin River (Moyle et al. 1992, Sweetnam and Stevens 1993). The delta smelt is an euryhaline species (tolerant of a wide salinity range) that spawns in fresh water and has been collected from estuarine waters

up to 14 ppt salinity (Moyle et al. 1992). For a large part of its annual life span, this species is associated with the freshwater edge of the mixing zone (saltwater-freshwater interface), where the salinity is approximately 2 ppt (Ganssle 1966, Moyle et al. 1992, Sweetnam and Stevens 1993).

The delta smelt is adapted to living in the highly productive Estuary where salinity varies spatially and temporally according to tidal cycles and the amount of freshwater inflow. Despite this tremendously variable environment, the historical Estuary probably offered relatively constant suitable habitat conditions for delta smelt, because they could move upstream or downstream with the mixing zone (Moyle, pers. comm., 1993). The final rule to list the delta smelt as threatened describes in detail the factors that have contributed to this species' decline (Service 1993a).

Shortly before spawning, adult delta smelt migrate upstream from the brackish-water habitat associated with the mixing zone to disperse widely into river channels and tidally-influenced backwater sloughs (Radtke 1966, Moyle 1976, Wang 1991). Migrating adults with nearly mature eggs were taken at the CVP's Tracy Pumping Plant from late December 1990 to April 1991 (Wang 1991).

Delta smelt spawn in shallow, fresh, or slightly brackish water upstream of the mixing zone (Wang 1991). Most spawning occurs in tidally-influenced backwater sloughs and channel edge waters (Moyle 1976; Wang 1986, 1991; Moyle et al. 1992). Although delta smelt spawning behavior has not been observed in the wild (Moyle et al. 1992), the adhesive, demersal eggs are thought to attach to substrates such as cattails, tules, tree roots, and submerged branches (Moyle 1976, Wang 1991).

Spawning locations appear to vary widely from year to year (DWR and Reclamation 1993). Sampling of larval delta smelt in the Delta suggests spawning has occurred in the Sacramento River, Barker, Lindsey, Cache, Georgiana, Prospect, Beaver, Hog, and Sycamore sloughs, in the San Joaquin River off Bradford Island including Fisherman's Cut, False River along the shore zone between Frank's and Webb tracts, and possibly other areas (Dale Sweetnam, DFG, pers. comm.; Wang 1991). Delta smelt also may spawn north of Suisun Bay in Montezuma and Suisun sloughs and their tributaries (Lasa Meng, Service, pers. comm.; Sweetnam, DFG, pers. comm.).

The spawning season varies from year to year and may occur from late winter (December) to early summer (July). Moyle (1976) collected gravid adults from December to April, although ripe delta smelt were most common in February and March. In 1989 and 1990, Wang (1991) estimated that spawning had taken place from mid-February to late June or early July, with peak spawning occurring in late April and early May. A recent study of delta smelt eggs and larvae (Wang and Brown 1994 as cited in DWR and Reclamation 1994) confirmed that spawning may occur from February through June, with a peak in April and May. Spawning has been reported to occur at about 7° to 15° C. Initial results from a University of California at Davis (UCD) study (Cech and Swanson 1993 as cited in DWR and Reclamation 1994) indicate that although delta smelt tolerate a wide range of temperatures (<8° C to >25° C), warmer water temperatures restrict their distribution more than colder water temperatures.

Laboratory observations indicate that delta smelt are broadcast spawners that spawn in a current, usually at night, distributing their eggs over a local area (Lindberg 1992 and Mager 1993 as cited in DWR and Reclamation 1994). The eggs form an adhesive foot that appears to stick to most surfaces. Eggs attach singly to the substrate, and few eggs were found on vertical plants or the sides of a culture tank (Lindberg 1993 as cited in DWR and Reclamation 1994).

Delta smelt eggs hatched in 9 to 14 days at temperatures from 13° to 16° C during laboratory observations in 1992 (Mager 1992 as cited in Sweetnam and Stevens 1993). In this study, larvae began feeding on phytoplankton on day four, rotifers on day six, and *Artemia* nauplii at day 14. In laboratory studies, yolk-sac fry were found to be positively phototaxic, swimming to the lightest corner of the incubator, and negatively buoyant, actively swimming to the surface. The post-yolk-sac fry were more evenly distributed throughout the water column (Lindberg 1992 as cited in DWR and Reclamation 1994). After hatching, larvae and juveniles move downstream toward the mixing zone where they are retained by the vertical circulation of fresh and salt waters (Stevens *et al.* 1990). The pelagic larvae and juveniles feed on zooplankton. When the mixing zone is located in Suisun Bay where there is extensive shallow-water habitat within the euphotic zone (depths less than four meters), high densities of phytoplankton and zooplankton may accumulate (Arthur and Ball 1978, 1979, 1980). In general, estuaries are among the most productive ecosystems in the world (Goldman and Horne 1993). Estuarine environments produce an abundance of fish as a result of plentiful food and shallow, productive habitat.

Delta smelt swimming behavior. Observations of delta smelt swimming in the swimming flume and in a large tank show that these fish are unsteady, intermittent, slow-speed swimmers. At low velocities in the swimming flume (<3 body lengths per second), and during spontaneous, unrestricted swimming in a 1-meter tank, delta smelt consistently swam with a "stroke and glide" behavior. This type of swimming is very efficient; Weihs (1974) predicted energy savings of about 50 percent for "stroke and glide" swimming compared to steady swimming. However, the maximum speed delta smelt are able to achieve using this preferred mode of swimming, or gait, was less than 3 body lengths per second, and the fish did not readily or spontaneously swim at this or higher speeds. Forced swimming at these speeds in a swimming flume was apparently stressful; the fish were prone to swimming failure and extremely vulnerable to impingement. Unlike fish for which this type of measurements have been made in the past, delta smelt swimming performance was limited by behavioral rather than physiological or metabolic constraints (e.g., metabolic scope for activity; Brett 1976).

Sacramento splittail

Please refer to Service (1994b) and DWR and Reclamation (1994) for additional information on the biology and ecology of the Sacramento splittail. The Sacramento splittail is a large cyprinid that can reach greater than 12 inches in length (Moyle 1976). Adults are characterized by an elongated body, distinct nuchal hump, and a small blunt head with barbels usually present at the corners of the slightly subterminal mouth. This species can be

distinguished from other minnows in the Central Valley of California by the enlarged dorsal lobe of the caudal fin. Sacramento splittail are a dull, silvery-gold on the sides and olive-grey dorsally. During the spawning season, the pectoral, pelvic and caudal fins are tinged with an orange-red color. Males develop small white nuptial tubercles on the head.

Sacramento splittail are endemic to California's Central Valley where they were once widely distributed in lakes and rivers (Moyle 1976). Historically, Sacramento splittail were found as far north as Redding on the Sacramento River and as far south as the site of Friant Dam on the San Joaquin River (Rutter 1908). Rutter (1908) also found Sacramento splittail as far upstream as the current Oroville Dam site on the Feather River and Folsom Dam site on the American River. Anglers in Sacramento reported catches of 50 or more Sacramento splittail per day prior to damming of these rivers (Caywood 1974). Sacramento splittail were common in San Pablo Bay and Carquinez Strait following high winter flows up until about 1985 (Messersmith 1966, Moyle 1976, and Wang 1986 as cited in DWR and Reclamation 1994).

In recent times, dams and diversions have increasingly prevented upstream access to large rivers and the species is restricted to a small portion of its former range (Moyle and Yoshiyama 1989). Sacramento splittail enter the lower reaches of the Feather (Jones and Stokes 1993) and American rivers (Charles Hanson, State Water Contractors, *in litt.*, 1993) on occasion, but the species is now largely confined to the Delta, Suisun Bay, and Suisun Marsh (Service 1994b). Stream surveys in the San Joaquin Valley reported observations of Sacramento splittail in the San Joaquin River below the mouth of the Merced River and upstream of the confluence of the Tuolumne River (Saiki 1984 as cited in DWR and Reclamation 1994).

Sacramento splittail are long-lived, frequently reaching five to seven years of age. Generally, females are highly fecund, producing over 100,000 eggs each year (Daniels and Moyle 1983. Populations fluctuate annually depending on spawning success. Spawning success is highly correlated with freshwater outflow and the availability of shallow-water habitat with submersed, aquatic vegetation (Daniels and Moyle 1983). Sacramento splittail usually reach sexual maturity by the end of their second year at a size of 180 to 200 mm. There is some variability in the reproductive period since older fish reproduce before younger individuals (Caywood 1974). The largest recorded Sacramento splittail have measured between 380 and 400 mm (Caywood 1974, Daniels and Moyle 1983. Adults migrate into fresh water in late fall and early winter prior to spawning. The onset of spawning is associated with rising temperature, lengthening photoperiod, seasonal runoff, and possibly endogenous factors from the months of March through May, although there are records of spawning from late January to early July (Wang 1986). Spawning occurs in water temperatures from 9° to 20° C over flooded vegetation in tidal freshwater and euryhaline habitats of estuarine marshes and sloughs and slow-moving reaches of large rivers. The eggs are adhesive or become adhesive soon after contacting water (Caywood 1974, and Bailey, University of California at Davis, pers. comm. 1994 as cited in DWR and Reclamation 1994). Larvae remain in shallow, weedy areas close to spawning sites and move into deeper water as they mature (Wang 1986).

Sacramento splittail are benthic foragers that feed on opossum shrimp, although detrital material makes up a large percentage of their stomach contents (Daniels and Moyle 1983). Earthworms, clams, insect larvae, and other invertebrates are also found in the diet. Predators include striped bass and other piscivores. Sacramento splittail are sometimes used as bait for striped bass.

Sacramento splittail can tolerate salinities as high as 10 to 18 ppt (Moyle 1976, Moyle and Yoshiyama 1992). Sacramento splittail are found throughout the Delta (Turner 1966), Suisun Bay, and Suisun and Napa marshes. They migrate upstream from brackish areas to spawn in freshwater. Because they require flooded vegetation for spawning and rearing, Sacramento splittail are frequently found in areas subject to flooding.

The 1985 to 1992 decline in Sacramento splittail abundance (Figure 3) is concurrent with hydrologic changes to the Estuary. These changes include increases in water diversions during the spawning period from January through July. Diversions, dams and reduced outflow, coupled with severe drought years, introduced aquatic species, and loss of wetlands and shallow-water habitat (DFG 1992) have reduced the species' capacity to reverse its decline.

Effects of the Proposed Action

The proposed action of disposal and reuse of MINSY could (1) directly eliminate and degrade harvest mouse habitat, (2) increase human disturbances to clapper rails, (3) increase predation pressure on rail and mouse populations in tidal and non-tidal wetlands, and (4) eliminate and degrade delta smelt and Sacramento splittail habitat.

Clapper Rail and Harvest Mouse Habitat Loss/Degradation and Mitigation

Future reuse activities such as construction work or creation of recreational trails could directly eliminate or degrade harvest mouse habitat. To avoid this potential adverse effect, the Navy proposes to prohibit construction in wetland areas and to develop and implement a detailed plan to effectively manages public access human use and activity during caretaker status in and adjacent to clapper rail or harvest mouse habitat on MINSY. The plan would assure enforceability and maintenance of proposed public access to protect the clapper rail and harvest mouse during caretaker status. The City would assume responsibility for enforcing and maintaining human use management under this plan upon transfer of MINSY. This plan would be subject to review and written approval by the Service within 6 months after the Record of Decision has been certified for the FEIS. The Navy would provide its Public Access Human Use Management Plan to the City prior to any property transfer to assist the City in meeting this requirement after the property is transferred to the City.

Future dredge pond use for disposal of dredged material would result in the continued loss and degradation of harvest mouse habitat. According to the biological opinion prepared for the Navy's dredge spoil program at MINSY and dated July 28, 1988, about 198.7 acres of harvest mouse habitat would be eliminated as a result of active use of dredge spoil ponds in Areas 1, 3, 4, 12, 13, and 25, and road construction in Area 5. To offset this habitat loss,

the Navy signed the MOU with the Service which provides for the permanent protection of 180 acres of harvest mouse habitat, creation of 44 acres of new harvest mouse habitat, and enhancement of 24 acres of harvest mouse habitat. In addition to preservation of this 248 acres of harvest mouse habitat, the Navy agreed to designate all tidal wetlands on the western half on MINSY and adjacent to Mare Island Strait north of the Mare Island Causeway as lands dedicated in perpetuity for the preservation of the harvest mouse. The MOU also provides for monitoring, research, and establishment of an overlay National Wildlife Refuge, which collectively would greatly improve the management potential and perpetuation of harvest mouse habitat on MINSY.

Active and/or inactive dredge disposal ponds could be leased to the City or other non-Federal entities for continued disposal of dredged material while the ponds are maintained under Navy caretaker status. According to the DEIS, operations of the active dredge ponds under any lease will be conducted in accordance with the requirements of the MOU. If any changes in the management program identified in the MOU are proposed (including, but not limited to, raising of levees to reactivate inactive dredge ponds), the Navy will consult with the Service under section 7 of the Act on any modifications in the incidental take authorization provided under the Biological Opinion prepared in 1988. In this regard, the DEIS does not identify who may use the dredge ponds for disposal in the future or where the material may come from. There are no available data on contaminant levels in this dredged material to determine if adverse effects to endangered species would occur. Therefore, the Navy proposes to consult with the Service if any changes in the scope and/or extent of dredge pond management beyond that identified in the MOU are proposed and to provide the Service with data on contaminant levels in dredged material proposed for placement in any dredge ponds to ensure that the material is not likely to affect harvest mice. The data shall be provided to the Service for review and written approval prior to placement of dredged material in any dredge pond at MINSY.

After the Navy actually disposes the dredge disposal ponds and reversion of the land to the State occurs, the Navy proposes that the State will be required to consult with the Service under either section 7 or 10 of the Act on potential adverse effects to federally listed species and to facilitate the continued use of any of the active or inactive dredge disposal ponds. Similarly, the Navy proposes that any Federal or non-Federal entities which acquire Federal surplus lands with dredge ponds will be required to consult with the Service to operate the dredge ponds. The DEIS indicates that future compliance with requirements of the Act after land disposal will be the responsibility of the public or private entities proposing projects in disposed lands that may affect federally listed species and that the Navy will not be responsible for compliance with the Act by other public or private entities after the land has been turned over to them.

In a letter dated April 9, 1997, SLC staff stated their intent to recommend to the SLC that a public agency lease for the management of State reversionary lands to the Service (i.e., San Pablo Bay National Wildlife Refuge) for a period of 49 years be approved. Lands covered under this lease would include tidal and nontidal wetlands which provide habitat for clapper rails and/or harvest mice. Under this lease, the Service would have right-of-first refusal

at the end of the 49-year lease term. The right-of-first refusal would not guarantee that a subsequent lease would be provided for endangered species habitat protection, but the new lease could provide for other public trust uses and a lease term as the SLC or another lease applicant might propose at that time. Furthermore, about 161.8 acres of nontidal wetlands which provide habitat for harvest mice would be transferred directly to the Service's National Wildlife Refuge System from the Navy for protection and management. Although not providing for protection and management in perpetuity of tidal and non-tidal lands as identified in the MOU, the 49-year lease and land transfer to the Service would provide a reasonable amount of habitat protection for impacts to endangered species habitat associated with the Navy's dredge disposal program from 1988 through the caretaker status period.

Under caretaker status by EFA West, the Navy will retain responsibility for remediation of contaminated areas within MINSY before disposal of these areas to the City or other non-Federal entities takes place. Future implementation of components of the BCP could result in adverse effects to clapper rail and/or harvest mouse habitat depending on the location and type of work required to remove contaminants and/or ordnance. The DEIS and BCP do not evaluate potential adverse effects on listed or proposed species which could result from environmental cleanup programs such as the Navy's IRP because future survey work is necessary to determine where clean-up is necessary and the level of cleanup work required. Therefore, prior to implementation of any aspect of the BCP, the Navy proposes to consult with the Service pursuant to section 7 of the Act to ensure that the proposed cleanup work is not likely to adversely affect clapper rails or harvest mice, or any other federally listed or proposed species, on MINSY. Should the Navy determine that any listed or proposed species are likely to be affected by the proposed cleanup work, the Navy shall initiate section 7 formal consultation with the Service.

Although not discussed or evaluated in the DEIS, future mosquito abatement work activities on MINSY could result in degradation and/or loss of clapper rail or harvest mice habitat. Use of all-terrain vehicles in tidal and non-tidal wetlands by mosquito abatement personnel could result in destruction of wetland vegetation within these areas, thus diminishing habitat quality for endangered species. To avoid or minimize adverse effects to federally listed species, the Navy proposes to ensure that the local mosquito abatement district submits an annual work plan for their proposed mosquito abatement work on MINSY to the Service and the Navy within each given year. Prior to implementation of any aspect of an annual work plan, the Navy proposes to consult with the Service pursuant to section 7 of the Act to ensure that the proposed mosquito abatement work is not likely to adversely affect clapper rails or harvest mice, or any other federally listed or proposed species, on MINSY. Should the Navy determine that any listed or proposed species are likely to be affected by the proposed mosquito abatement work in the work plan, the Navy proposes to initiate section 7 formal consultation with the Service.

Disturbance Effects on Clapper Rails from Reuse Activities

Development activities identified in the DEIS could result in disruption of clapper rail breeding activities in tidal marshes in the western half of

MINSY. The degree of disturbance likely would depend upon the proximity of individual rails and nests and the timing within the breeding season, and could result in increased competitive interactions, territory boundary shifts, or territory abandonment.

Suitable nesting habitat for rails exists in the tidal marsh on the western half, especially in the southwestern part, of MINSY. At Laumeister Marsh in April 1992, an individual rail abandoned an established territory during the breeding season coinciding with disturbance by a Pacific Gas and Electric work crew. This rail left a small, well-defined territory and subsequently moved throughout a large 37-acre area within the marsh and was unable to establish a new territory within the breeding period (USFWS, unpubl. data). As a result of this territorial abandonment, the opportunity for successful reproduction during the breeding season was eliminated (J. Takekawa, pers. comm.). Data from this telemetered rail suggest that increased human activity and associated noise within a rail's established territory can significantly alter the normal behavioral patterns of rails during the breeding season, possibly resulting in extensive movements, lack of reproductive success, or territorial abandonment.

Should rails shift or abandon their territories within the tidal marsh in the western half of MINSY, the ability of these rails to reestablish new breeding territories would be hampered by the fact that rails tenaciously defend established breeding territories from intrusions by other rails. As observed in the Laumeister Marsh example, rails could be forced to move considerable distances in search of unoccupied territorial habitat. Such movement by rails from established territories could significantly increase the risk of predation and mortality. Survival of displaced rails likely would be less than survival of rails that remain in established territories. Zembal and Massey (1988) noted that three of six telemetered light-footed clapper rails that moved extensively were preyed upon within a relatively short period of time. By comparison, seven other birds that remained sedentary within established territories were not preyed upon during the telemetry period. Loss of any female rails would be compounded by the loss of future progeny.

On numerous occasions at the Corte Madera Ecological Preserve in Marin County, rails have been observed seeking refuge from unrestrained dogs entering tidal marshes from adjacent levees with public access (J. Garcia, pers. comm. 1994). These disturbances have occurred despite the presence of signs notifying users that they are entering sensitive wildlife species areas and that pets must be under restraint while in the preserve area. The effects of disturbance would be greatly amplified during high tide series when available high tide refugial habitat becomes scarce along the levees.

To avoid or minimize adverse effects to clapper rails from human disturbances, the Navy proposes to develop and implement the Public Access Human Use Management Plan as described above. Implementation of this plan during caretaker status by the Navy and, after property transfer, by the City likely would provide a reasonable level of assurance that adverse effects to clapper rails from human disturbances will be adequately minimized or avoided.

Increased Predator Pressure

Proposed reuse development activities, especially a significant increase in the number of residential units, could result in an increase above current conditions in predator pressure on clapper rails and salt marsh harvest mice in the tidal marshes and non-tidal wetlands in and adjacent to MINSY, including the Roosevelt Terrace residential complex. Increased food availability associated with development in the reuse areas likely would attract and support larger small mammal populations, including rats, house mice, feral and domestic cats, and raccoons which could prey upon rails and mice. As on-site predator populations increase, predators forced out of developed areas by population density-dependent factors, or by behavioral dispersal mechanisms, could infiltrate adjacent habitats (M. Small and J. Loven, pers. comm. *in* USFWS 1990), including tidal marshes in San Pablo Bay National Wildlife Refuge.

Increases in the number of domestic and feral animals could cause territorial abandonment by rails in adjacent tidal marshes. Evens and Page (1983) documented 4 rail breeding territories along the Greenbrae boardwalk in the Corte Madera Ecological Preserve. In 1993, no rail breeding territories were discovered along the boardwalk even though rail habitat conditions remained unchanged (J. Garcia, pers. comm.). This territorial abandonment is attributed to an increase in domestic and feral dogs and cats along the boardwalk resulting from new residents moving into nearby residential areas since 1983 (*id.*). According to Foerster *et al.* (1990), predators, especially rats, accounted for nest losses of 24 to 29 percent in certain South Bay marshes. Rats and cats entering nearby tidal marshes and non-tidal wetlands could become prey for higher order predators such as red foxes and raccoons, as well as representing predators to endangered species. Therefore, the carrying capacities for higher and lower order predators could increase substantially above current levels. Not only could the existing rail population on MINSY be subjected to increased predator pressure, but rails dispersing from other locations into the tidal marshes on MINSY could be subjected to artificially high levels of predation resulting from proposed reuse activities.

The Navy's proposal to apply the City's animal control regulations to housing areas on MINSY, and to prepare and adopt a management plan for feral cats likely would not protect rails and mice from increased predator pressures. The level of enforcement of these regulations by the City and, thus, the overall effectiveness of these regulations to reduce predator pressure on endangered species is unknown. No protective measures are proposed for adjacent tidal marshes such as White Slough which could receive higher levels of predation from reuse of the Roosevelt Terrace residential complex. Furthermore, the level of management of feral cats in and adjacent to endangered species habitat has not been specified. If an adequate management program were initiated in the future, the presence of increased numbers of people and pets on levees and trails near endangered species habitat could severely hinder, if not completely eliminate, the effectiveness of predator management efforts. On several levee trails (i.e., Ideal Marsh and Palo Alto Baylands) open to daytime human use in the South Bay, the ability to manage predators has proven to be extremely difficult because of the hazards of

placing traps in areas frequented by people and their pets, vandalism to traplines, and the negative perception of predator management efforts by some people (J. Takekawa and J. Albertson, pers. comm.). To conduct predator management in these areas, predator management personnel must take additional measures to reduce possible contact between the public and the trapping program including the use of cover/uncover trapping techniques, setting traps after dark, checking traps before sunrise, and careful placement of traps to avoid heavily traveled paths. Unfortunately, these extra measures have greatly reduced the effective trapping time and area, while also requiring more personnel to maintain trapping efforts. In several locations where easy human access is provided (e.g., areas near parking lots and trailheads, and the Palo Alto Baylands duck pond), the ability to conduct any predator management has been eliminated by human presence in the area day and night.

To avoid or minimize adverse effects to clapper rails and harvest mice from increased predation pressure, the Navy shall ensure that a detailed, active, annual, predator management plan of not to exceed 20 hours per week of field effort which effectively manages predators on all portions of MINSY is developed and implemented during caretaker status within 6 months after a Record of Decision has been certified on the Final Environmental Impact Statement/Environmental Impact Report (FEIS). The plan will continue indefinitely and be subject to review and approval by the Service. The City will implement an active predator management program of not to exceed 20 hours per week which effectively manages predators upon transfer of MINSY from the Navy to the City. The City will be responsible for the annual predator management of each parcel as it is transferred from Navy ownership. The Navy will maintain responsibility for predator management on leased parcels, but may seek reimbursement from lessees for predator management actions on leased areas. The Navy will provide its Predator Management Plan to the City prior to any property transfer to assist the City in meeting their requirement for providing predator management in the future. The plan shall include, but not be limited to, provisions for continuous monitoring and management of predators on MINSY by qualified predator management personnel. Personnel shall be experienced and/or trained in performing predator management activities in or adjacent to clapper rail or harvest mouse habitat. The Navy will ensure that during caretaker status, predator management personnel can operate on all Navy property necessary to complete their mission. Upon property transfer to the City, the City will ensure that predator management personnel can operate on all City property. The City also will require subsequent property owners to allow access to predator management personnel as a condition of property transfer from the City to private entities. The Navy and City will fund predator management activities as part of their standard annual budgeting processes; consistent with all fiscal laws. Performance standards and associated contingency measures will be developed as part of the predator management plan. Development and implementation of this plan in conjunction with the public access management plan likely would provide a reasonable level of assurance that adverse effects to clapper rails and harvest mice from increased predation pressure will be adequately minimized or avoided during caretaker status by the Navy and subsequent reuse by the City.

Delta Smelt, Delta Smelt Critical Habitat, and Sacramento Splittail

Based on an analysis of occurrence of delta smelt and Sacramento splittail in the vicinity of Mare Island Naval Shipyard done by Ai-Ling Chai, these fish occur on an occasional basis when transported there by high freshwater flows. Delta smelt critical habitat encompasses the "legal Delta"; therefore, Mare Island is not included in delta smelt critical habitat.

Any future project having in-water activities in the vicinity of Mare Island Naval Shipyard, including the use of the dry docks, will have potential adverse effects to delta smelt and Sacramento splittail. These effects include: (1) increases in turbidity; (2) destruction of shallow water refugial habitat through dredging or pile driving; (3) wake induced erosion and oil spills due to boat traffic; and, (4) shading of submersed aquatic plants due to boat docks and other floating platforms.

Cumulative Effects

Cumulative effects include the effects of future State, Tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

Cumulative effects on the clapper rail include ongoing habitat conversion from salt to brackish conditions by fresh water effluent from the San Jose/Santa Clara Water Pollution Control Plant. The San Francisco Bay Regional Water Quality Control Board routinely renews discharge permits that allow marsh conversion to continue. Successful implementation of a proposed tidal marsh restoration project for the 835-acre Baumberg Tract would mitigate for this habitat loss, but the project has yet to be implemented. The City of San Jose currently is exploring potential reuse measures to reduce their discharges in the future. Other cumulative effects include chemical contamination from point and non-point discharges that may adversely affect survival rates and reproductive success.

One of the most serious cumulative effects on the harvest mouse has been the degradation of diked wetlands, typically by the elimination of wetland vegetation by grazing, discing, grubbing, and plowing, and/or the elimination of appropriate hydrologic conditions by installing drains, ditches, and pumps. The extensive conversion of south Bay salt marshes to brackish and freshwater habitat also has appreciably reduced available tidal habitat for this species. Approval of urban developments without maintaining adequate upland habitat adjacent to wetlands also represents a major cumulative effect by likely increasing mortality rates and lowering harvest mouse carrying capacities in affected areas.

Conclusion

After reviewing the current status of the California clapper rail, salt marsh harvest mouse, delta smelt, and Sacramento splittail, the environmental baseline, the effects of the proposed disposal and reuse of Mare Island Naval

Shipyard, and the cumulative effects, it is the Service's biological opinion that the Mare Island Naval Shipyard disposal and reuse, as proposed, is not likely to jeopardize the continued existence of the endangered California clapper rail, endangered salt marsh harvest mouse, and threatened delta smelt. Delta smelt critical habitat is contained within the "legal Delta" for the Sacramento-San Joaquin estuary. Therefore, this project will not adversely modify or destroy critical habitat for this species. No critical habitat has been designated for the other species.

After reviewing the current status of the Sacramento splittail, the environmental baseline, the effects of the proposed disposal and reuse of Mare Island Naval Shipyard, and the cumulative effects, it is the Service's conference opinion that the Mare Island Naval Shipyard disposal and reuse, as proposed, is not likely to jeopardize the continued existence of the proposed Sacramento splittail. No critical habitat for the Sacramento splittail has been proposed, therefore, none will be adversely modified or destroyed.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act, and Federal regulation pursuant to section 4(d) of the Act, prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by the Service as actions that create the likelihood of injury to listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Harm is defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns, including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with this Incidental Take Statement.

The measures described below are non-discretionary and must be undertaken by the agency so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, for the exemption in section 7(o)(2) to apply. The Navy has a continuing duty to regulate the activity covered by this incidental take statement. If the Navy (1) fails to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, and/or (2) fails to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) may lapse.

Amount or Extent of Take

For the California clapper rail, we anticipate that the proposed action would have an effect on clapper rails in certain tidal marshes at MINSY known to support rail breeding territories. We anticipate that harassment and/or harm

to a small number (3 pairs or less) of breeding rails could result from proposed reuse activities. Proposed reuse activities could increase the probability of predation on rails by increasing predator populations at MINSY. Predator pressure on rails also could be exacerbated by increased human activity in areas requiring predator management efforts. Territorial abandonment by rails resulting from increased human disturbance in tidal marsh habitat areas could result in harassment and/or harm of individual rails and breeding failure. No direct loss of clapper rail habitat is anticipated for the proposed action. This amount of impact is anticipated to be offset with successful implementation of mitigation measures included in the proposed project by the Navy and City.

For the salt marsh harvest mouse, we anticipate that an unquantifiable number of mice would be killed or injured by the proposed action. Harvest mice lack the agility to evade heavy equipment. The level of take is unquantifiable because of the variable, unknown size of the resident population over time, and the difficulty in finding killed or injured small mammals. In such situations, the Service estimates the level of take in terms of acreage of habitat loss.

Based on the discussion above, the Service anticipates that an unquantifiable number of harvest mice may be killed, harmed, or harassed, during future operations of the dredge disposal ponds during caretaker status by the Navy. About 198 acres of harvest mouse habitat could continue to be lost as a result of future use of the dredge ponds during caretaker status by the Navy under guidelines established in the MOU in 1988. Mitigation identified in the MOU is anticipated to offset this habitat loss during caretaker status by the Navy. Harvest mice also may be killed, harmed, or harassed, as a result of increased predation and human activity in suitable habitat areas. This amount of impact is undeterminable at this time, but is estimated to be insignificant with successful implementation of mitigation measures included in the proposed project by the Navy and City. No incidental take is authorized for disposal of dredged material into any active or inactive dredge disposal pond on MINSY after cessation of caretaker status by the Navy.

For the California clapper rail and salt marsh harvest mouse, no incidental take is authorized for activities associated with implementation of the BCP or placement of contaminated dredge material in the dredge ponds. No incidental take is authorized for mosquito abatement work activities on MINSY.

For the delta smelt and Sacramento splittail, the Service anticipates an unquantifiable number of individuals will be killed or harassed by the proposed action. This is due to the difficulty in monitoring effects on fish and collecting dead individuals. However, since no specific activities are proposed at this time within delta smelt or Sacramento splittail habitat, no take is authorized.

Effect of the Take

In the accompanying biological and conference opinion, the Service has determined that the anticipated level of take associated with the proposed action is not likely to jeopardize the continued existence of the endangered

California clapper rail, endangered salt marsh harvest mouse, threatened delta smelt, and proposed threatened Sacramento splittail.

Reasonable and Prudent Measures

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize incidental take of the California clapper rail, salt marsh harvest mouse, and delta smelt. While prohibitions against taking found in section 9 of the Act do not apply until the species is listed, the Service believes implementation of theses measures would also minimize incidental take of the proposed Sacramento splittail:

1. The potential for harassment, harm, or mortality to California clapper rails and salt marsh harvest mice shall be minimized.

2. Impacts to the salt marsh harvest mouse resulting from habitat modification shall be minimized.

3. The potential for harassment, harm, or mortality to the delta smelt shall be minimized.

Terms and Conditions

To be exempt from the prohibitions of section 9 of the Act, the Navy must comply with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are nondiscretionary.

The following terms and conditions implements the reasonable and prudent measures described above:

1. The U.S. Navy shall ensure that the disposal and reuse of Mare Island Naval Shipyard will be implemented, as proposed by the U.S. Navy and City of Vallejo, including measures designed to avoid, minimize, or mitigate for potential adverse effects to the endangered California clapper rail, endangered salt marsh harvest mouse, threatened delta smelt, and proposed threatened Sacramento splittail.

2. Six months prior to the complete cessation of caretaker status by the U.S. Navy, the City of Vallejo shall provide the predator management and public access management plans to be implemented by the City of Vallejo after cessation of caretaker status by the U.S. Navy to the U.S. Fish and Wildlife Service for review and written approval.

The Service shall be notified within twenty-four (24) hours of the finding of any injured or dead California clapper rail or their eggs, or salt marsh harvest mice, or any unanticipated damage to California clapper rail or salt marsh harvest mouse habitat associated with the proposed dredging work and disposal of dredged material. Additionally, the Service shall be notified within twenty-four (24) hours of the finding of any dead or injured delta

smelt or Sacramento splittail. Notification must include the date, time, and precise location of the specimen/incident, and any other pertinent information. The Service contact person is this office's Endangered Species Division is Jim Browning (telephone 916/979-2725). Any dead or injured specimens shall be reposited with the Service's Division of Law Enforcement, 3310 El Camino Avenue, Suite 140, Sacramento, California 95821-6340 (telephone 916/979-2987).

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities intended to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

The Service recommends that the Navy evaluate all of its base closures for effects on any federally listed or proposed species on a case by case basis. As part of this evaluation, a set of mitigation measures should be promulgated.

REINITIATION NOTICE

This concludes formal consultation and conference on the proposed action outlined in your September 11, 1995, request for formal consultation. As provided in 50 CFR section 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded, as previously described; (2) new information reveals effects of the actions that may affect listed species or critical habitat in a manner that was not considered in this opinion; (3) the agency action is substantially modified in a manner that causes an effect to listed species that was not considered in this opinion; or (4) a new species is listed or critical habitat is designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

This concludes the conference for the disposal and reuse of the MINSY. You may ask the Service to confirm the conference opinion as a biological opinion issued through formal consultation if the species is listed. The request must be in writing. If the Service reviews the proposed action and finds that there have been no significant changes in the action as planned or in the information used during the conference, the Service will confirm the conference opinion as the biological opinion on the project and no further section 7 consultation will be necessary.

After listing the Sacramento splittail as threatened and any subsequent adoption of this conference opinion, the Federal agency shall request reinitiation of consultation if: (1) the amount or extent of incidental take

is exceeded, as previously described; (2) new information reveals effects of the actions that may affect listed species or critical habitat in a manner that was not considered in this opinion; (3) the agency action is substantially modified in a manner that causes an effect to listed species that was not considered in this opinion; or (4) a new species is listed or critical habitat is designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

If you have any questions regarding this biological and conference opinion, please contact Jim Browning or Michael Thabault in this office's Endangered Species Division at (916) 979-2725.

Sincerely,

for Wayne S. White
Field Supervisor

cc: RD (ARD-ES), Portland, OR
DHC, Washington, D.C.
SFBNWR, Newark, CA (M. Kolar and B. Radtke)
SFO-Environmental Contaminants Div. (J. Haas)
SFO-Wetlands (M. Littlefield)
DOI-Regional Solicitor's Office, Sacramento (D. Jacobsen)
Corps of Engineers (Regulatory Branch), San Francisco
EPA (Wetlands Section), San Francisco (M. Monroe)
CDFG, Region III, Yountville, CA (J. Swanson and C. Wilcox)
CDFG, Environmental Services, Sacramento, CA

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