SAN FRANCISCO BAY AREA

JOINT AQUATIC RESOURCE PERMIT APPLICATION

This form is for use in San Francisco, Contra Costa, Alameda Counties, Marin County (except Estero San Antonio watershed)**, San Mateo County** (except Gazos Creek Watershed), **and the portions of the following counties that drain to San Francisco Bay: Sonoma, Napa, Solano, Santa Clara**

Please consult JARPA Instructions before completing the form

Copies of this form are being submitted to the following agencies:					
Agency	**Contact**	**Phone**	**Type of Application**	**Application/ Permit #**	**Status**
☒ San Francisco Bay Regional Water Quality Control Board (RWQCB)	Xavier Fernandez	(510) 622-5685	CWA Section 401 Permit and/or Waste Discharge Requirements		new
☒ US Army Corps of Engineers (Corps)	Justin Yee	(415) 503-6788	CWA 404 Individual, Consolidated Dredging Permit	2014-00373	new
☒ CA Dept of Fish and Game (DFG)	Arn Aarreberg	(707) 576-2889	No permit - informational		Select One
☒ US Environmental Protection Agency (EPA)	Melissa Scianni	(415) 972-3821	CWA 404 Individual (Informational)		new
☒ US Fish and Wildlife Service (FWS)	Ryan Olah	(916) 414-6623	As suggested by US EPA for Sec. 7 consultation		Select One
☒ National Marine Fisheries Service (NMFS)	Gary Stern	(707) 575-6067	As suggested by US EPA for Sec. 7 consultation		Select One
☒ US Coast Guard	Greg Ressio	(415) 399-3536	Informational		Select One
☒ San Francisco Bay Conservation and Development Commission (BCDC)	Ming Yeung	(415) 352-3616	Major permit (Informational; application in Jan. 2015)		Select One
☒ CA Lands Commission	Sharron Scheiber	(916) 574-1868	Informational		Select One
☐ Federal Funding Agency					Select One
☐ Lead Local Agency			CEQA		Select One
☐ Other Local Agency			Local Permit		Select One
☐ Other Local Agency			Local Permit		Select One

SECTION ONE – TO BE COMPLETED BY ALL APPLICANTS

Attach additional sheets, if needed

Box 1 Project Name Treasure Island/Yerba Buena Island Redevelopment			**Applicant Name** Robert Beck (TIDA) / Kheay Loke (TICD)
Business/Agency Treasure Island Development Authority (TIDA) / Treasure Island Community Development (TICD)			
Mailing Address c/o Lennar Urban, One Sansome St., Suite 3200, San Francisco, CA 94014			
Work Phone (415) 274-0662	Home Phone	Fax # (415) 274-0299	E-mail Address: Bob.Beck@sfgov.org KLoke@wilsonmeany.com
Relationship of applicant to property: ☐ Owner ☐ Purchaser ☐ Lessee ☒ Other Robert Beck (Treasure Island Development Authority, Executive Director)			
Application is hereby made for a permit or permits to authorize the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I hereby grant to the agencies to which this application is made, the right to enter the above-described location to inspect the proposed, in-progress or completed work. I agree to start work only after all necessary permits have been received.			
Signature of applicant			Date 11/20/14

Box 2 Authorized Agent/Operator Name and Signature (***If an agent is acting for the applicant during the permit process)*** Kheay Loke, Treasure Island Community Development			
Mailing Address c/o Lennar Urban, One Sansome St., Suite 3200, San Francisco, CA 94014			
E-mail Address KLoke@wilsonmeany.com			
Work Phone (415) 905-5381	Home Phone	Fax #	Cell Phone #
I hereby designate the above named authorized agent to act as my agent in matters related to this application for permit(s). I understand that I am bound by the actions of my agent and I understand that if a federal or state permit is issued, I, or my agent, must sign the permit.			
Signature of applicant			Date 11/20/14
I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate.			
Signature of authorized agent			Date

Box 3 Name of property owner(s), if other than applicant. Department of the Navy, John Hill, Base Closure Manager			
Mailing Address Navy BRAC PMO West, 1455 Frazee Road, Suite 900, San Diego, CA 92108			
E-mail Address john.m.hill@navy.mil			
Work Phone 619-532-0985	Home Phone	Fax #	Cell Phone #
I understand I am bound by actions of authorized agent and/or the applicant.			
Signature of property owner (except public entity landowners)			Date

This page must be signed by the applicant, property owner and agent to be considered complete.

Box 4 Location, including street address, city, county, zip code where proposed activity will occur
TREASURE ISLAND AND YERBA BUENA ISLANDS, SAN FRANCISCO, CA 94130, SAN FRANCISCO COUNTY

Waterbody (if known): San Francisco Bay
Tributary to: Pacific Ocean

Latitude & longitude if known: Ferry terminal: Latitude: 37.816229, Longitude: -122.372962	Zoning Designation: P (Public)
Assessors parcel number: Assessor's Block 1939, Lot 001 (Treasure Island) and 002 (Yerba Buena Island)	Section, Township, Range, USGS Quadrangle Map, Latitude/Longitude: 37°52'30"/122°22'30" Oakland West & San Francisco North Quads

Box 5 Existing site conditions: Describe the existing condition of the site, including wetlands, channels, streams, ponds, seeps and ditches, and other jurisdictional features. Include information on elevations, vegetation, property use, and structures. Use additional pages if necessary. **If any portion of the proposed activity has already been initiated or completed on this property, indicate type of activity and month and year of completion, if applicable:**

Please see attached text.

Box 6 Proposed project starting date: Demolition is proposed to begin September 1, 2015, with construction beginning January 1, 2016. Construction of the ferry facilities is expected to commence no earlier than 2018 nor later than 2020.
Estimated duration of activity: 15 years Estimated completion date: 2030
Will the project be constructed in stages? ☒ Yes ☐ No
Describe any anticipated activities that will take place during the rainy season (October to April)? See attached.

Box 7 Description of the proposed project: Use as many pages as necessary to describe the project as completely as possible. Describe the area within the project site that will be used each for development features and open space. Include construction plans pertaining to the project. For additional guidance on what to include, refer to the instructions.

See attached.

Specify the equipment and machinery to be used to complete the project

Land-based excavators and cranes, clamshell bucket operated from barge-mounted cranes, vibratory hammers with cushion blocks operated from a barge-mounted cranes, impact hammers operated from barge-mounted cranes, scows, tugs, and workboats.

Will water be present in the waterbody during the proposed work period?
☒ Yes ☐ No

Will the proposed project require work in the wetted portion of the channel?
☒ Yes ☐ No

Purpose of the proposed project:
See attached.

Environmental Documents (non-CEQA): List any environmental studies, surveys, etc. that have been prepared for the project and/or the project site. Provide the date of the document and the name of the individual, firm, or agency that prepared it. Attach additional pages as needed. See instructions.

See attached.

See special section of the instructions on drawings. figures and photographs. Attach figures, maps, and directions to the project site. One set of original or good quality reproducible drawings must be attached to applications to each agency**.** Applicants are encouraged to submit photographs of the project site, but these do not substitute for drawings. BCDC, the Corps Of Engineers and Coast Guard require at least one set of drawings on 8-1/2 x 11 inch sheets.

Box 8A Placement of Structures And/Or Fill Material in Waters under Army Corps Jurisdiction

- Will fill be placed below the ordinary high water line for fresh waters? ☐ Yes ☒ No
- Will rock, fill, bulkhead, pilings, structures or other material be placed waterward of the mean high water line for tidal waters? ☒ Yes ☐ No
- Will fill be placed below the high tideline in tidal waters? ☒ Yes ☐ No

If applicable, number of linear feet of impact: 1,150 feet (ferry facilities) and 250 feet (outfalls permanent)
Amount of **total** fill – 10,870 cubic yards, 10,260 square feet, 0.24 acreage
Amount of fill **below the ordinary high water mark or high tide line** 2,200 cubic yards 0.24 acreage
Type of fill: Rock riprap (rock slopes and outfalls), concrete headwall (outfalls), concrete sheet piles and concrete batter piles (breakwaters), concrete piles (pier), steel piles (float), steel or concrete float
Material source: commercially procured

Box 8B Waterway Impacts: Placement of Structures and/or Fill in Waters of the State

Will the project or activity involve work in the bed, bank or channel of a river, stream (including seasonal streams), or lake? ☐ No ☒ Yes

If yes, describe both temporary and permanent impacts to the bed, channel, and bank of the river, stream, or lake, and the associated riparian habitat. Specify the dimensions of the modifications in length (linear feet) and area (square feet or acres) and the type and volume of material (cubic yards) that will be moved, displaced, or otherwise disturbed, if applicable.
See attached.

Will the project affect any vegetation? ☒ No ☐ Yes. If yes, complete Box 17-FG11

Box 9 Impacts on Wetlands

- Will the proposed project have temporary or permanent impacts to wetlands, including isolated wetlands, seasonal wetlands, managed wetlands or on tide or submerged lands (i.e. fill, flooding, draining)? ☐ Yes ☒ No

If yes, please describe the wetlands, using additional pages as necessary. Provide one or more photographs of the existing conditions.

- If a wetlands delineation has been completed, please submit it with application. ☐ Yes, Attached ☒ No
- If a geology or soils report has been prepared, please submit with application. ☒ Yes, Attached ☐ No

Box 10 Potential for Impacts to Threatened and Endangered Species

Are any special status animal or plant species, or habitat that could support such species, known to be present on or near the project site? ☒ Yes ☐ No ☐ Unknown

If yes, list here
See attached.

Identify the source(s) of information that supports a "yes" or "no" answer above:
See attached.

Have surveys, using US Fish and Wildlife Service protocols, for possible listed species been conducted?
☐ Yes, Attached ☒ No

If a federal or state listed species is being impacted, a biological assessment or study may be required to evaluate potential project impacts on biological resources. Has such a study been completed?. ☒ Yes, Attached ☐ No

Has a hydrological study been completed for the project or project site? ☒ Yes, Attached ☐ No

Note: A hydrological study or other information on site hydraulics (e.g., flows, channel characteristics, and/or flood recurrence intervals) may be required to evaluate potential project impacts on hydrology.

Box 11 Avoidance of Impacts

Provide a full, technically accurate description of the entire activity and associated environmental impacts, including areas outside of jurisdictional waters. (90 percent of applications to the Regional Board require an Alternatives Analysis.) See instructions.

See attached.

Box 12 Mitigation

Describe the size, type, location, function, and values of the proposed mitigation and a time line for implementation. Describe success criteria, monitoring, and long-term funding, management, and protection of the mitigation site. Attach A Mitigation Plan, if needed. Attach additional pages as needed. See instructions and contact APPROPRIATE AGENCY staff for additional assistance.

See attached.

Box 13 Excavation And/Or Dredging

For Non-Navigational Dredging Projects (construction, flood control, remediation, etc.) that do not propose disposal or reuse of dredged materials in aquatic environments [Navigational Dredging Projects or Dredging Projects that Propose Aquatic Placement of Dredged Material for which Testing may be Needed should be completed through the Dredged Material Management Office (DMMO)**]**.

Will excavation or dredging be required in water or wetlands? ☒ Yes ☐ No
Excavation for outfall construction is described below.

If ~~dredging or~~ excavation:

- Volume: Temporary 700, Permanent 280 (cubic yards)/area 0.09 (acres)/ 250 (linear feet of channel)
- Composition of material to be removed: rock riprap
- Disposal location for excavated material: A portion of the excavated rock will be used to backfill the areas excavated for outfall construction.
- Method of dredging:
- Purpose of the dredging:
- Estimated future maintenance dredging required annually: cubic yards

Additional information to be provided in an attachment ☒ Yes ☐ No
See attached Consolidated Dredging-Dredged Material Reuse/Disposal Application and supporting information.

Box 14 Environmental Impact Documentation

Has a draft or final document been prepared for the project pursuant to the California Environmental Quality Act (CEQA), National Environmental Protection Act (NEPA), California Endangered Species Act (CESA) and/or federal Endangered Species Act (ESA)?

☒ Yes (*Check the box for each CEQA, NEPA, CESA, and ESA document that has been prepared and enclose a copy of each*)

☐ No (*Check the box for each CEQA, NEPA, CESA, and ESA document listed below that will be or is being prepared*)

☐ Notice of Exemption ☐ Mitigated Negative Declaration ☐ NEPA document (*type*): _____

☐ Initial Study ☒ Environmental Impact Report ☐ CESA document (*type*): _____

☐ Negative Declaration ☐Notice of Determination *(Enclose)* ☐ ESA document (*type*): _____

☐ THP/ NTMP ☒ Mitigation, Monitoring, Reporting Plan

State Clearinghouse Number (*if applicable*) 20078012105

Has a CEQA lead agency been determined? ☒ Yes ☐ No
If yes, CEQA Lead Agency City and County of San Francisco
Contact Person Rick Cooper
Telephone Number (415) 575-9027, rick.cooper@sfgov.org

If the project described is part of a larger project or plan, briefly describe the larger project or plan.

See attached (described in Box 7. Description of Proposed Project).

Box 15 Public Notice Has a federal agency or the applicant provided public notice of this application for water quality certification?

Federal Agency ☐ Yes If yes, date, , and ☒ No

Applicant ☐ Yes If yes, date, , and ☒ No

Other ☐ Yes If yes, date, , and ☒ No

If public notice has not been made, please provide the names, addresses and telephone numbers of adjoining property owners, lessees, etc. *(Note that local governments may require additional notice – consult your local government agency.)*

Name	Address	Phone number
SEE ATTACHED		

Box 16 Site Inspection

☒ In the event that public agencies determines that a site inspection is necessary, I hereby authorize public agency representatives to enter the property where the project described in this application will take place at any reasonable time, and hereby certify that I am authorized to grant public agency representatives such entry.

☐ I request agencies first contact (*insert name*) _____ at (*insert telephone number*) _____ to schedule a date and time to enter the property where the project described in this application will take place. I understand that this may delay the issuance of project permits.

End of Section One

Section Two – Agency Specific Requirements for Project Permitting

Box 17 Department of Fish and Game – Projects Adjacent to Creeks, Streams, Lakes, and the Bay

☒ **This project does not involve this agency (no additional questions completed)**

FG4. AGREEMENT TERM REQUESTED

☐ Regular (5 Years or less) ☐ Long Term (greater than 5 years)

Project Term		Seasonal Work Period		Number of work days
Beginning (year)	Ending (year)	Start Date (month/day)	End Date (month/day)	

FG5. AGREEMENT TYPE

Check the applicable box. If box B, C, D, or E is checked, complete the specified attachment.

A.	☐ Standard *(Most construction projects, excluding the categories listed below)*
B.	☐ Gravel/Sand/Rock Extraction (*Attachment A*) *Mine I.D. Number:* _____
C.	☐ Timber Harvesting (*Attachment B*) THP *Number:* _____
D.	☐ Water Diversion/Extraction/Impoundment (*Attachment C*) *SWRCB Number:* _____
E.	☐ Routine Maintenance (*Attachment D*)
F.	☐ DFG Fisheries Restoration Grant Program (FRGP) *FRGP Contract Number:* _____
G	☐ Master
H.	☐ Master Timber Harvesting

FG6. FEES

	A. Project	B. Project Cost	C. Project Fee
1			
2			
3			
4			
5			
		D. Base Fee *(if applicable)*	
		E. TOTAL FEE ENCLOSED	

Box 17 Department of Fish and Game

FG7. PRIOR NOTIFICATION OR ORDER

A. Has a notification previously been submitted to, or a Lake or Streambed Alteration Agreement previously been issued by, the Department for the project described in this notification?

☐ Yes (*Provide the information below*) ☐ No

Applicant: _____ Notification Number: _____ Date: _____

B. Is this notification being submitted in response to an order, notice, or other directive ("order") by a court or administrative agency (including the Department)?

☐ No ☐ Yes (*Enclose a copy of the order, notice, or other directive. If the directive is not in writing, identify the person who directed the applicant to submit this notification and the agency he or she represents, and describe the circumstances relating to the order.*)

☐ *Continued on additional page(s)*

FG8. PROJECT LOCATION

Include a map that marks the location of the project with a reference to the nearest city or town, and provide driving directions from a major road or highway

D. Is the river or stream segment affected by the project listed in the state or federal Wild and Scenic Rivers Acts?	☐ Yes	☐ No	☐ Unknown

E. County	

F. USGS 7.5 Minute Quad Map Name	G. Township	H. Range	I. Section	J. ¼ Section

K. Meridian (*check one*)	☐ Humboldt	☐ Mt. Diablo	☐ San Bernardino

L. Assessor's Parcel Number(s)

M. Coordinates (*If available, provide at least latitude/longitude or UTM coordinates and check appropriate boxes)*

Latitude/Longitude	*Latitude:*	*Longitude:*	
	☐ Degrees/Minutes/Seconds	☐ Decimal Degrees	☐ Decimal Minutes
UTM	*Easting:*	*Northing:*	☐ Zone 10 ☐ Zone 11
Datum used for Latitude/Longitude or UTM	☐ NAD 27	☐ NAD 83 or WGS 84	

Box 17 Department of Fish and Game

FG9. PROJECT CATEGORY AND WORK TYPE *(Check each box that applies)*

PROJECT CATEGORY	NEW CONSTRUCTION	REPLACE EXISTING STRUCTURE	REPAIR/MAINTAIN EXISTING STRUCTURE
Bank stabilization – bioengineering/recontouring	☐	☐	☐
Bank stabilization – rip-rap/retaining wall/gabion	☐	☐	☐
Boat dock/pier	☐	☐	☐
Boat ramp	☐	☐	☐
Bridge	☐	☐	☐
Channel clearing/vegetation management	☐	☐	☐
Culvert	☐	☐	☐
Debris basin	☐	☐	☐
Dam	☐	☐	☐
Diversion structure – weir or pump intake	☐	☐	☐
Filling of wetland, river, stream, or lake	☐	☐	☐
Geotechnical survey	☐	☐	☐
Habitat enhancement – revegetation/mitigation	☐	☐	☐
Levee	☐	☐	☐
Low water crossing	☐	☐	☐
Road/trail	☐	☐	☐
Sediment removal – pond, stream, or marina	☐	☐	☐
Storm drain outfall structure	☐	☐	☐
Temporary stream crossing	☐	☐	☐
Utility crossing : Horizontal Directional Drilling	☐	☐	☐
Jack/bore	☐	☐	☐
Open trench	☐	☐	☐
Other *(specify)*:	☐	☐	☐

FG11 PROJECT IMPACTS

B. Vegetation Type	Temporary Impact	Permanent Impact
	Linear feet: _____ Total area: _____	Linear feet: _____ Total area: _____
	Linear feet: _____ Total area: _____	Linear feet: _____ Total area: _____

C. Tree Species	Number of Trees to be Removed	Trunk Diameter (range)

☐ *Continued on additional page(s)*

FG12. MEASURES TO PROTECT FISH, WILDIFE, AND PLANT RESOURCES

C. Describe any project mitigation and/or compensation measures to protect fish, wildlife, and plant resources.

FG 13. PERMITS

List any local, state, and federal permits required for the project and check the corresponding box(es). Enclose a copy of each permit that has been issued.

A. _____ ☐ Applied ☐ Issued

B. _____ ☐ Applied ☐ Issued

C. _____ ☐ Applied ☐ Issued

D. Unknown whether ☐ local, ☐ state, or ☐ federal permit is needed for the project. (*Check each box that applies*)

FG 14 ENVIRONMENTAL REVIEW

Has an environmental filing fee (DFG Code section 711.4) been paid?

☐ Yes (Enclosed) ☐ No (Explain why it has not been paid)

FG 16. DIGITAL FORMAT

Is any of the information included as part of the notification available in digital format (i.e., CD, DVD, etc.)?

☐ Yes (Please enclose the information via digital media with the completed notification form)

☐ No

FG 17. SIGNATURE

I hereby certify that to the best of my knowledge the information in this notification is true and correct and that I am authorized to sign this notification as, or on behalf of, the applicant. I understand that if any information in this notification is found to be untrue or incorrect, the Department may suspend processing this notification or suspend or revoke any draft or final Lake or Streambed Alteration Agreement issued pursuant to this notification. I understand also that if any information in this notification is found to be untrue or incorrect and the project described in this notification has already begun, I and/or the applicant may be subject to civil or criminal prosecution. I understand that this notification applies only to the project(s) described herein and that I and/or the applicant may be subject to civil or criminal prosecution for undertaking any project not described herein unless the Department has been separately notified of that project in accordance with Fish and Game Code section 1602 or 1611.

_____ _____

Signature of Applicant or Applicant's Authorized Representative Date

_____

Print Name

End of BOX 17

Box 18 Bay Conservation and Development Commission – Projects on the Shore of the San Francisco Bay or Other BCDC Areas of Jurisdiction

☐ **This project does not involve this agency (no additional questions completed)**

Does the project involve development within the primary management area of the Suisun Marsh? ☐ Yes ☐ No If "Yes", provide any relevant Duck Club number(s): _____	Does the project involve development within the 100-foot shoreline band around San Francisco Bay? ☐ Yes ☐ No San Francisco Bay Plan Shoreline Designation
Length of shoreline on the project site, in feet:	Length of shoreline of any adjacent property owned by the owner of the project site, in feet:
Area reserved for non-public access uses: Sq. Feet	Area reserved for public access: Sq. Feet
Total size of underwater and tidal areas of the project site: Sq. Feet	ID Number(s) of previous BCDC permit(s) issued for work on this site:

Total cost of project. (This means the fair market value of the project, including materials, labor, machine rentals, etc.) $_____ Processing Fee _____

Bay Fill Information - Fill means earth or any other substance or material, including pilings or structures placed on pilings, and structures floating at some or all times and moored for extended periods such as houseboats and floating docks.

- Total Volume of solid fill to be placed in water or marsh areas: _____ cubic feet
- Area to be covered with solid fill: _____square feet
- Area to be covered with floating fill: _____sq feet
- Area to be covered with pile-supported fill: _____sq feet
- Area to be covered with cantilevered fill: _____ sq feet
- Salt pond area to be filled: _____sq feet
- Managed wetland area in the primary management
- Area of the Suisun Marsh to be filled:_____sq feet
- Area on new fill to be reserved for private, commercial, or other uses: _____ sq feet
- Area on new fill to be reserved for public access: _____ sq feet
- What is the basic purpose of the new fill in the Bay, salt pond, managed wetland, or certain waterway?

Information on Fill to be provided in an attachment

- Please specify the area of fill, in square feet, proposed to be covered in structures; used for roads; used for parking; used for pathways and sidewalks; covered with landscaping; used for piers, docks, and other maritime related purposes; placed for shoreline protection; and used for other purposes (specify uses).
- Please provide dimensions of portions of all structures to be built on new fill, including length, width, area, height and number of stories.
- Please provide one or more photographs of existing shoreline conditions.

Provide the following information to justify the proposed fill in an attachment:

BCDC can approve new fill for only five purposes: (1) accommodating a water-oriented use; (2) improving shoreline appearance; (3) providing new public access to the Bay; (4) accommodating a project that is necessary to the health, safety, or welfare of the public in the entire Bay Area; and (5) accommodating a project that is consistent with either: (1) the Suisun Marsh Preservation Act and the Suisun Marsh Protection Plan; or (2) the Suisun Marsh Local Protection Program. Please explain how the project is consistent with one or more of these purposes.

- If the fill is to be used for improving shoreline appearance or providing new public access to the Bay, please explain why it is physically impossible or economically infeasible to accomplish these goals without filling the Bay.
- Please explain how the fill will result in a stable and permanent shoreline.
- Please explain the steps that will be taken to assure that the project will provide reasonable protection to persons and property against hazards of unstable geologic or soil conditions or of flood or storm waters.
- Please provide the names, addresses, and telephone numbers of any licensed geologists, engineers, or architects involved in the project design who can provide technical information and certify to the safety of the project.

BOX 18 (CONTINUED)

- Please explain:
  1. What possible effects the proposed fill would have on the Bay Area, such as (1) any impact on the volume of Bay waters, on Bay surface area, or on the circulation of Bay water; (2) any impact on water quality; (3) any impact on the fertility of marshes or fish and wildlife resources; and (4) any impact on other physical conditions that exist within the area which would be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, or objects of historic or aesthetic significance; and
  2. How the nature, location, and extent of the proposed fill would minimize any possible harmful conditions or effects.
- Please explain how the public benefits of the project would exceed the public detriment from the loss of water or marshlands.
- For marina projects, please indicate how many berths, if any, are to be made available for live-aboard boats and explain how these live-aboard boats will contribute to public trust purposes.
- Please identify any other specific policies of the McAteer-Petris Act (California Government Code Title 7.2, especially Section 66605), the Suisun Marsh Preservation Act (California Public Resources Code Sections 29000-29612), the San Francisco Bay Plan and the Suisun Marsh Preservation Plan, and BCDC's regulations regarding minor fill for improving public access and shoreline appearance, that are relevant to and offer support for the project and explain how the project is consistent with these policies.

Shoreline Band Information - Shoreline band means the land area lying between the bay shoreline and a line drawn parallel to and 100 feet from the bay shoreline. The bay shoreline is the mean high water line, or five feet above mean sea level in marshlands.

- Types of activities to be undertaken or materials to be placed within the shoreline band
- Will the project be located within a water-oriented priority use area that is designated in the San Francisco Bay Plan? ☐ Yes ☐ No If "yes", please attach an explanation of how the project can be approved despite this inconsistency. If no, complete the questions below:
  - Total shoreline band area within project site:_____ sq feet
  - Area within shoreline band to be reserved for non-public uses:_____ sq feet
  - Area within shoreline band to be reserved for public access: _____ sq feet
- Information about the shoreline work to be provided in an attachment:
  - Please describe the area, in square feet, to be covered by structures; used for roads; used for parking; used for pathways and sidewalks; covered with landscaping; used for shoreline protection; and used for other purposes (specify uses).
  - Please identify the total number of parking spaces in the project and within the shoreline band.
  - Please provide dimensions of portions of all structures to be built within the shoreline band, including length, width, area, height, and number of stories.

Environmental Impact Documentation

- Is the project statutorily exempt from the need for environmental documentation? ☐ Yes ☐ No If "yes", please attach a statement supporting this exemption.
- Is the project categorically exempt from the need for environmental documentation? ☐ Yes ☐ No If "yes", please attach a statement supporting this exemption.
- Has a government agency other than the lead agency certified a "negative declaration" on the project? ☐ Yes ☐ No If "yes", please attach a copy of the certified negative declaration. If "no", please provide sufficient information to allow agencies to make the necessary findings regarding all applicable policies.

Has a government agency other than the lead agency, certified an environmental impact document on the project? ☐ Yes ☐ No If "yes", please attach copies of the certification and the document. also, please provide a summary of the document if it is longer than 10 pages. If "no", please provide sufficient information to allow agencies to make the necessary findings regarding all applicable policies. the certified document must be submitted prior to action on the permit.

BOX 18 (CONTINUED)

Public Access Information

- Does public access to the shoreline or views to the bay presently exist on the site of a property contiguous to the project? ☐ Yes ☐ No

  If "yes", please attach a description of the public access. If "no", explain what is preventing public access to the shoreline.

- Will the project block public views of the bay or adversely impact present or future public access to the shoreline? ☐ Yes ☐ No

Please describe why the project will or will not affect public views or public access to the shoreline. For most large projects, identify: (1) the existing number of people or employees using the site; and (2) the existing number of cars, bicycles, and pedestrians visiting the site and the level of service of all nearby roads leading to the site. Please describe how the project will change these factors. Please describe the impact the project is expected to have on the existing use of the site and on existing public views or physical public access at the site. Please describe the impact the project is expedted to have on the public's use of existing nearby parks, public access, public parking and other recreational areas on the shoreline and the roads leading to the site.

- Do public safety considerations or significant use conflicts make it infeasible to provide new public access to the shoreline on the project site? ☐ Yes ☐ No

If "yes", please attach a description of the public safety considerations or significant use conflicts which make it infeasible to provide public access at the project site and either (1) identify an offsite area where public access to the shoreline is to be provided as part of the project and describe the proposed public access at a specified offsite location, or (2) provide an explanation as to why no offsite public access is proposed as part of the project.

- Summarize the public access to be provided as part of the total project:
- Total amount of public access _____ sq feet
- Length of waterfront public access area _____ feet
- Number of parking spaces for public access area _____
- Area and width reserved for view corridor (s) _____ sq feet

Detailed information about public access to be provided in an attachment: Please describe, in square feet, length and width, when appropriate, the existing and proposed public access areas and improvements, including areas used for decks, piers, pathways, sidewalks, landscaping, parking, and other public features. Please describe how the public access area facilities would be accessible to handicapped persons. Please describe the connections to existing public streets or offsite public pathways. Specify how the public access will be permanently guaranteed (e.g. dedication, deed restriction, etc.).

Disclosure Of Campaign Contributions

The following contributions of $250 or more were made by the applicant or applicant's agent to a BCDC commissioner or commissioner's alternate in the preceding twelve months to support the commissioner's or alternate's campaign for election to a local, state or federal office:

Contribution made to:_____ Contribution made by: _____ Date of contribution: _____

☐ No such contributions have been made

END OF FORM

TREASURE ISLAND REDEVELOPMENT JARPA ATTACHED TEXT

BOX 5. EXISTING SITE CONDITIONS

Treasure Island

Treasure Island is a flat, man-made island that was constructed from fill between 1936 and 1939. The U.S. Navy took possession of Treasure Island from the City and County of San Francisco in 1941 and operated a military base, Naval Station Treasure Island, until it was closed in 1997. Treasure Island encompasses approximately 367 acres of residential, open space/recreation, community/institutional, office/retail, and industrial uses, as well a 37-acre Job Corps campus operated by the U.S. Department of Labor. An approximately 100-slip marina is located along the southern shoreline of Treasure Island in Clipper Cove.

Vegetation on Treasure Island is present in landscaped and developed areas on Treasure Island. Landscaped areas include mature ornamental trees, shrubs, and grasses. Much of the vegetation found on Treasure Island consists of introduced species, such as blue gum eucalyptus (*Eucalyptus globulus*), Monterey pine (*Pinus radiata*), and Monterey cypress (*Cupressus macrocarpa*). Native plant species are not likely to be found in landscaped areas due to frequent disturbance, human control, and lack of proper soils.

Yerba Buena Island

Yerba Buena Island, a natural feature in the Central Bay, is markedly different from Treasure Island. It is approximately 150 acres in size. The island has been used by private parties and by the U.S. Army, Navy, and the U.S. Coast Guard since the 1840s. Existing land uses on Yerba Buena Island include residential, open space and recreation facilities, California Department of Transportation facilities and U.S. Coast Guard Station and Sector Facility on Yerba Buena Island.

Historically, topography was broadly sloping from the island's summit about 350 feet above mean sea level, becoming steeper further from the summit. Current topography includes a series of terraces engineered for development beginning at the top of the island, with steep slopes and cliffs down to the Bay on all sides. Slopes on Yerba Buena Island range from less than 5 up to 75 percent.

Vegetation communities on Yerba Buena Island include California annual grassland, valley wildrye grassland, central coast riparian scrub, northern coastal scrub, California buckeye woodland, coast live oak woodland, coast live oak woodland/eucalyptus, eucalyptus woodland, and ruderal/landscaped. A mix non-native and native species are found on Yerba Buena Island.

The Islands are located in the Central Bay region of the San Francisco Bay. Intertidal and subtidal habitats surround the Islands.

BOX 6 PROPOSED PROJECT STARTING DATE

Construction of the ferry facilities is expected to commence no earlier than 2018 nor later than 2020. The exact year of this construction is dependent upon the date of construction of the first

homes. Ferry facilities construction including dredging, pier/gangway installation, and installation of the float may coincide with the rainy season (October – April) as work will be conducted within the dredging work windows established by the USACE Long Term Management Strategy ("LTMS")[1]. Outfall construction may also coincide with the rainy season as it will take place between March 1 and November 30, consistent with Mitigation Measure M-B1-2b from the FEIR[2].

Major Phase 1: 2015-2025
Ferry Facilities beginning between 2018 and 2020 and lasting two work window seasons, completed between 2019 and 2021.
Outfall work beginning no earlier than 2016 and completed no later than 2030.
Up to seven outfalls will be replaced or renovated, and thirteen will be abandoned in place on TI and YBI.

Major Phase 2: 2020-2027
Construction of the South Breakwater of Ferry Facilities to begin in approx. 2023 and to be completed no later than 2030.
Outfall work beginning no earlier than 2020 and completed no later than 2030.
Two outfalls will be replaced or renovated, and one will be abandoned in place on TI.

Major Phase 3: 2023-2030
Outfall work beginning no earlier than 2023 and completed no later than 2030.
One outfall will be replaced or renovated, and two will be abandoned in place on TI.

Major Phase 4: 2026-2034
Outfall work beginning no earlier than 2026 and completed no later than 2030.
Four outfalls will be replaced or renovated, and three will be abandoned in place on TI.

BOX 7. DESCRIPTION OF THE PROPOSED PROJECT

1. INTRODUCTION

Treasure Island (TI) and Yerba Buena Island (YBI) are in San Francisco Bay, about halfway between the San Francisco mainland and Oakland (see Figure 1) The Islands are the site of the former Naval Station Treasure Island ("NSTI"), which is owned by the U.S. Navy. NSTI was closed on September 30, 1997, as part of the Base Realignment and Closure Program. The Islands also include a U.S. Coast Guard Station and Sector Facility, a U.S. Department of Labor

[1] U.S. Army Corps of Engineers, LTMS Environmental Work Windows Informal Consultation Preparation Packet, February 2004

[2] Mitigation Measure M-BI-2a: Restriction of Construction Activities Geotechnical stabilization, shoreline heightening and repair work, stormwater outfall improvements, and other Project activities conducted in and around the Islands' rocky shoreline shall be generally restricted to the terrestrial and upper intertidal zones. Activities in the lower intertidal and near subtidal zone shall be minimized to the maximum extent practicable, using the smallest area and footprint for disturbance as possible. Outside of planned dredging areas (Ferry Terminal and the Sailing Center) movement and disturbance of existing rocks in the lower intertidal zone shall be prohibited.

Job Corps campus, and Federal Highway Administration ("FHWA") land occupied by the San Francisco-Oakland Bay Bridge ("Bay Bridge") and tunnel structures.

The Treasure Island Development Authority ("TIDA") is proposing to redevelop the portions of NSTI still owned by the Navy. The Development Plan will be carried out by Treasure Island Community Development, LLC ("TICD").

Currently, the former military base consists primarily of low-density residential uses, along with vacant and underutilized non-residential structures, existing and former non-residential uses, parking and roadways, open space, a wastewater treatment facility, and other infrastructure. The Development Plan Area will be redeveloped with a new, high-density, mixed-use community with a variety of housing types, a retail core, open space and recreation opportunities, on-site infrastructure, and public and community facilities and services. In all, there will be up to 8,000 residential units, 450,000 square feet (sq. ft.) of new commercial and retail space; up to 500 hotel rooms and a cultural center; a new ferry terminal and transit program; approximately 300 acres of parks and open space; an approximately three-mile long shoreline trail on Treasure Island and Yerba Buena Island; and new and/or upgraded public services and utilities, including a new or upgraded wastewater treatment plant and a new recycled water plant.

Implementation of the Development Plan will be phased over a 10-15 year period. The TIDA is applying for an Individual Permit (IP) from the Army Corps of Engineers and a Water Quality Certification from the Regional Water Quality Control Board for the discharge of fill and dredging in waters of the U.S. associated with construction of the ferry terminal and renovation of the existing storm drain outfall system. TIDA will also apply for a major permit from the San Francisco Bay Conservation and Development Commission (BCDC) for those same activities as well as improvements to the shoreline revetment on TI and trails within BCDC jurisdiction on TI and YBI.

2. PROJECT DESCRIPTION

2.1 Overview

Treasure Island (TI) contains approximately 404 acres of land, and Yerba Buena Island (YBI), approximately 160 acres. The project will convert approximately 367 acres on TI and approximately 94 acres on YBI from a former military base to a dense, mixed-use development. The redevelopment of TI and YBI includes: up to 8,000 residential units; 450,000 square feet of retail space; up to 500-hotel rooms and a cultural center; a new ferry terminal and transit program; approximately 300 acres of new public parks and open space; an approximately 3 - mile-long public shoreline trail around TI and various trails on YBI. The project would redevelop both TI and YBI over four phases spanning 10 to15 years (see Figure 2). Open space management on YBI will be implemented consistent with the Treasure Island Habitat Management Plan (HMP).

There are five primary components to the redevelopment of TI and YBI, including: (1) residential; (2) open space and recreation; (3) transportation; (4) commercial and adaptive reuse;

and (5) community and public facilities. Figure 2 depicts the locations of these redevelopment components and their location relative to each major phase of development.

Redevelopment of TI and YBI will require earthwork, geotechnical stabilization of TI and the causeway connecting it to YBI, the importation of fill material to raise the surface elevation of TI to address flood protection and potential sea level rise, selective removal of trees and vegetation, demolition of buildings and other structures, and construction of new structures and infrastructure during the four phases of the project.

2.2 Project Components in Waters of U.S.

The two Project components requiring dredging or the discharge of fill material into waters of the U.S. are: a) construction and operation of a new ferry terminal; and b) improvements to existing drainage structures and outfalls. A description of each of these Project elements is provided below. Construction methods, materials, equipment, timeline, Project phase in which construction will occur and impacts on open water and shoreline habitat, as well as fish and wildlife are described. A phasing schedule for construction is provided in Figure 3.

The residential, open space, commercial, community and public facilities elements of the Project do not entail any work in waters of the U.S.

2.2.1 Ferry Terminal

Located at the southwest corner of TI, a new ferry quay and terminal will be constructed to provide service to downtown San Francisco. Once a ferry operator has been selected and the terminal has been constructed, the ferry service will be operated, with initial runs at approximately 60-minute intervals. The goal will be to provide service to downtown San Francisco at 15-minute intervals at peak periods from 5am to 9pm at full build-out of the Project.

The ferry terminal will include two side-loading ferry slips (where ferry boat loads passengers) that will have capacity to accommodate demand increases in the future. The land access to the ferry slip includes an access pier, an ADA- compliant gangway, a steel or concrete float that would be anchored by six guide piles and mooring dolphins to protect the ferry from bumping against the float and other structures. The float will have mooring fittings and access platforms on each side to allow two ferries to moor at the float at the same time, providing two slips.

To protect the ferry slips and allow ferry service to continue in the exposed wave climate of SF Bay, the Project includes an approximately 200- to 300- foot-wide west-facing basin with angled breakwaters.

The ferries themselves will be able to hold approximately 149 to 399 passengers, and will be approximately 140 feet long and 55 feet wide with a draft of up to eight feet. Up to two vessels could overnight at the ferry terminal, and routine operations, such as sewage pump-out, filling potable water storage containers, and light maintenance will occur at the terminal.

Construction of the ferry quay and terminal entail construction of the following elements in waters of the U.S.:

- Breakwaters
- Rock slope linkage of shoreline to the breakwater
- Pier with foundation piles, gangway and float (including guide and fender piles)
- Dredging

The Project includes approximately 0.15 acres (6,460 square feet) of fill for the ferry terminal facilities, and 0.12 acres (5,200 square feet) of floating fill. In order to create a navigable basin, the project proponents are proposing to dredge up to 6,000 cubic yards to a depth of about -14 feet (plus 2 feet of over-depth allowance, totaling to -16 feet). Table 1 in Box 8B text summarizes bay fill and dredging associated with the ferry terminal. Figure 4 provides an overview of the ferry terminal facilities.

Breakwaters: Two breakwaters made of precast 12 inch thick concrete sheet piles will be constructed to create the west-facing basin. An approximately 760-foot-long breakwater to the north, and an approximately 350-foot-long breakwater to the south will be constructed. The concrete sheet pile breakwater will terminate on the east side (shore) at the toe of the slope of the existing rock revetment on TI that will leave a gap between the sheets and the existing rock slope. This gap will be closed with a rock slope placed on top of the existing rock slope and perpendicular to it. Both breakwaters will have navigation lights to mark the harbor entrance, but will otherwise not be lighted. Due to high waves overtopping the breakwaters, no public access along the breakwaters is proposed.

The breakwaters will be installed with an impact hammer with approximately 100,000 ft-lb energy output operated from barge-mounted cranes. Concrete batter piles (24-inch octagonal at 15-foot centers) will be installed along the basin-interior side of the breakwaters. Between 50 and 60 concrete batter piles will support the north breakwater, and 20 to 30 batter piles will support the south breakwater (see Figure 5).

The north breakwater will be installed between June and November (in water work window) as the first in-water element of ferry terminal construction. The exact year of this construction is dependent upon the date of construction of the first homes and it is estimated that it will be no earlier than 2018 nor later than 2020. The duration of the in water portion of the breakwater work in the first year of construction is estimated to be 3-5 months to drive the concrete sheets and to place the rock closure slope at the shore, described in the following section. No dewatering will be required for this work nor will any excavation to place the breakwaters be required. Since the existing shore line is fully protected from wave exposure, no slope protection will be needed during construction. The dredging for the basin will occur during this same period or the following year. The south breakwater may be installed in a second phase or in the same year. The south breakwater location may be adjusted due to an existing underwater cable located in the “exclusion zone” as depicted in Figure 4. Alternatively, the underwater cable may be relocated and the south breakwater constructed as shown in Figure 4.

During construction of the breakwaters best management practices will include no fueling of equipment allowed on site for over water work, use of equipment that minimizes turbidity in the

water, and require protective netting or equivalent devised to ensure no debris can fall into the water during the work.

Rock Slope Closure (Linkage between Breakwater and Shoreline): Two rock slope connections will be constructed on each side of the ferry terminal at the shore end of the breakwaters (see Figure 5).

The rock closure will consist of rip rap rock similar to the size (1-2 ton rock) and graduation of the existing rock slope and will be placed on top of the existing rock. The rock slope closures are needed to anchor and provide continuous wave protection of the breakwaters' connections at the shoreline. Each rock slope will be approximately 600 SF (0.014 ac) in size as measured at MHW, or 2,400 SF (0.06 ac) at bay bottom (each rock slope). The rock will be constructed following construction of each breakwater with the use of an excavator positioned on the landward side of the shoreline revetment, as well as with the use of an excavator operated from a barge. No dewatering will be performed for this work. This work will be performed during the first year of construction during the installation of the concrete sheets.

Dredging: Construction of the ferry basin will require dredging approximately 6,000 CY of primarily sandy substrate to a depth of -14 feet (plus 2 feet of over-depth allowance, to a total elevation of -16 feet) in an area of approximately 0.55 acres (see Figure 6). Maintenance dredging may be required once the terminal is operational. The frequency and volume of dredging cannot be accurately predicted. The west shore of TI is not a high depositional environment and it is estimated that future dredging would be less than 2,000 CY performed at infrequent (over 2 years) intervals. Permit applications for maintenance dredging will be submitted following construction of the ferry terminal.

Dredging will be conducted by a clamshell bucket operated from a barge-mounted crane. Dredged material will be placed onto an adjacent scow. Pending completion of sediment sampling, three locations for the disposal of dredged materials are under consideration, with selection to be determined upon completion of sediment sampling: beneficial re-use to raise surface elevations on Treasure Island; beneficial re-use at Montezuma Wetlands; or beneficial reuse at Winter Island.

Pier (Abutment), Gangway and Float: The land access to the ferry slip includes:

- Pier: 13-feet-wide, 145-foot-long, with railing that may also have a canopy;
- Gangway: approximately 13-feet-wide, 90-feet-long, ADA- compliant, connects the pier and float;
- Float: approximately 45-feet-wide, 115-feet-long, steel or concrete, anchored by six guide and fender piles. Mooring dolphins and/or fender walls will be included to protect the ferry from bumping against the float and other structures.

These features are shown in Figure 6. The float will have mooring fittings and access platforms on each side to allow two ferries to moor at the float at the same time.

Four 42-inch diameter steel fender and guide piles will be installed on the west side of the float, and two 42-inch diameter steel guide piles will be installed on the east side of the float. The steel

piles will be installed with the use of a vibratory hammer with an energy output of 6,000 ft-lb and a variable frequency between 0 to 1,400 vibrations per minute operated from a barge - mounted crane. The piles will be installed to a depth of embedment of 50-90 feet below the bay bottom, estimated, to be confirmed by geotechnical investigations currently in progress. The pier will be supported by 16 24-inch concrete pier foundation piles that will be installed with the use of a diesel powered impact hammer with approximately 100,000 ft-lb energy output operated from a barge-mounted crane to a depth of embedment of 50-90 feet below the bay bottom, estimated, to be confirmed by geotechnical investigations currently in progress.

The installation of the pier, gangway and float for the ferry slip will occur in the second year of the construction of the ferry terminal. This work will occur during the same in water work window from June to November. The pier deck will be installed atop the piles described above either formed of in-place concrete or coated steel. The work would be performed from barge-mounted cranes or from scaffolding clamped to the installed piles. The float will be fabricated offsite and transported to the site with the use of a tug or similar tow vessel. The gangway would be fabricated off site and brought to the site on a barge. The gangway would then be placed on the pier and float by a barge mounted crane. The concrete sheet piles, batter, guide, fender and pier foundation piles will be manufactured off site and transported to the site on a barge that will stage delivery of materials within and just west of the ferry terminal location. Upon completion of this work, the ferry slip will be operational.

2.2.2 Outfall Improvements and Stormwater Management

Stormwater runoff from streets and paved areas on TI and YBI is currently discharged untreated directly to the Bay through 31 outfalls around the perimeter of TI and 32 outfalls from YBI. The existing stormwater system will be replaced with a new collection system, which will include gravity pipelines, force mains, lift stations, pump stations and the reconstruction of existing outfalls. Pre-discharge treatment will be provided by street planters and bioretention treatment planters. The stormwater management plan will be designed and constructed consistent with San Francisco Public Utility Commission (SFPUC) standards and regulations. Existing outfalls will be replaced, renovated or abandoned in place (see Figures 7, 8 and 9) during each of the four phases of construction. A total of 14 outfalls will be replaced or renovated from existing outfalls on TI and YBI. The disturbance area surrounding each outfall will be isolated and dewatered with the installation of a coffer dam prior to earthwork. Each outfall will be constructed by temporarily excavating an approximately 850 sq. ft. area and removing approximately 50 CY of existing rock slope protection to allow installation of a precast or cast-in-place concrete headwall. After the headwall has been placed, the work area will be backfilled with the previously excavated rock riprap to conform to the existing slope. Approximately 30 CY of rock will be returned, 6 CY of concrete will be placed as the headwall, resulting in a net loss of fill of about 14 CY per outfall. Because final design of the stormwater treatment system and outfalls has not been completed, the maximum area of impact (discharge of fill material and excavation) for the outfalls is described in Table 1 (permanent fill) and Table 2 (temporary fill), to ensure that permits issued for the project are adequate to cover potential impact to waters of the U.S.

Existing rock shoreline protection at the outfalls to be replaced or renovated will be excavated with the use of an excavator positioned on the shoreward side of the revetment. Excavated

materials will be stockpiled in adjacent uplands for re-use or offsite disposal. The work areas surrounding the outfalls will be dewatered prior to construction with the use of sandbags, steel sheetpiles or water filled bladder-type cofferdams. The exact type of cofferdam would be determined by the contractor's means and methods as to which is most constructible given the thick rock embankment and slope. Water would be removed with pumps on site returning the water to the bay.

Box 7. Purpose of the Proposed Project:

The Treasure Island Development Authority (TIDA), a single-purpose public agency responsible for the development, and the Treasure Island Community Development LLC (TICD), a private entity competitively selected as the master developer, are joint sponsors of the Project. The Project's overall purpose is to convert approximately 367 acres on Treasure Island and approximately 94 acres on Yerba Buena Island from a former military base to a dense, mixed-use development with residential, commercial, cultural, hotel, recreational, and retail uses centered around an intermodal Transit Hub. Supporting infrastructure, public services and utilities, and a substantial amount of open space would also be provided.

Box 7. Environmental Documents (non-CEQA)

Applied Marine Science, *Benthic Survey of Proposed Treasure Island, California Redevelopment Ferry Terminal Location.* Report prepared for the Treasure Island Redevelopment Project, San Francisco, CA. May 2009.

Applied Marine Sciences, Inc., (AMS) *Survey of Intertidal Habitat and Marine Biota at Treasure Island and Along the Western Shoreline of Yerba Buena Island*. Report prepared for the Treasure Island Redevelopment Project, San Francisco, CA. April 2009.

Conger Moss Guillard, ESA and Wood Biological Consulting. *Yerba Buena Habitat Management Plan*. March 2011.

Hanson Environmental, Inc. and Mosaic Associates. *Biological Assessment and Essential Fish Habitat Assessment for Construction and Long-term Operations and Maintenance of a Ferry Terminal and Stormwater Discharges Located on Treasure Island*. November 2014.

Merkel & Associates. *Eelgrass Habitat Surveys for the Emeryville Flats and Clipper Cove, Yerba Buena Island*. October 1999-2005, and 2007. Prepared for the California Department of Transportation. January 2008.

BOX 8B WATERWAY IMPACTS: PLACEMENT OF STRUCTURES AND/OR FILL IN WATERS OF THE STATE

Table 1: Treasure Island Ferry Terminal and Storm Drain Outfalls Bay Fill and Dredging						
	Bay Fill at MHW (SF)			**Bay Bottom Footprint (Horiz. Projection below MHW) (SF)**	**Volume (CY)**	
Ferry Component	**Solid**	**Shaded**	**Floating**		**Total Structure**	**Below MHW**
Breakwaters & Batter Piles	1,400	9,000		1,400	2,340	1,190
Rock Slopes	1,200			4,800	950	840
Pier & Foundation Piles	160	1,700		160	5,300	70
Gangway		1,200			90	
Float & Guide and Fender Piles	100		5,200	100	2,100	50
Dredging					-6,000	
Total Ferry Component	**2,860**	**11,900**	**5,200**	**6,460**	**10,780***	**2,150***
Outfalls permanent 14 total	+250 -700			3,800	+90 -280**	+50 -220
Total Ferry & Outfalls Gross (net)	**3,110 (2,410)**	**11,900**	**5,200**	**10,260**	**10,870* (10,590*)**	**2,200* (1,980*)**
	Bay Fill at MHW (Acres)			**Bay Bottom Footprint (Horiz. Projection below MHW (Acres))**		
Breakwaters & Batter Piles	0.03	0.21		0.03		
Rock Slopes	0.03			0.11		
Pier & Foundation Piles	0.00	0.04		0.00		
Gangway		0.03				
Float & Guide and Fender Piles	0.00		0.12	0.00		
Outfalls Gross (net)	0.01 (-0.02)			(0.09)		
Total Gross (net)	**0.07 (0.06)**	**0.27**	**0.12**	**0.24**		

* Dredging not included.
**90 CY of concrete for the outfall headwalls (total structure) will be permanently placed. 280 CY of rock will be permanently removed, resulting in a loss of 190 CY of bay fill.
Note: Some apparent errors due to rounding.

Table 2: Treasure Island Storm Drain Outfalls TEMPORARY Bay Fill						
	Bay Fill at MHW (SF)			Bay Fill (Horiz. Projection below MHW) (SF)	Volume (CY)	
Ferry Component	Solid	Shaded	Floating		Total Structure	Below MHW
Outfalls temporary (coffer dams, 14 total)	2,400			11,900	4,500	3,400

Table 3. Treasure Island/Yerba Buena Island Redevelopment Bay Fill and Dredging Materials				
Map location number	Project Component	Reason for Action & Component Type	Amount and Type of Material (CY)	Surface Area Affected (acres, linear feet), T or P
1	Breakwater Sheets	Protect ferry slips & allow ferry service (Structural)	Concrete sheets 12" thick and cap 730 CY N. Breakwater 210 CY S. Breakwater	N. Breakwater: 0.017 ac P S. Breakwater: 0.008 ac P
2	Breakwater Batter Piles	Support breakwaters (Structural)	Concrete piles, 24" octagonal at 15' centers 190 CY N. Breakwater 60 CY S. Breakwater	N. Breakwater: 0.004 ac P S. Breakwater: 0.002 ac P
3	Float Guide and Fender Piles	Anchor float & protect ferry from bumping into float (Structural)	Steel guide piles, 42" diameter 50 CY	Guide & fender piles: 0.002 ac P
4	Float	Loading platform for passengers (Floating)	Steel or concrete float	0.12 ac P
5	Pier Piles	Support pier (Structural)	Concrete pier foundation piles, 24" diameter 70 CY	0.004 ac P
6	Rock Slopes	Protect connection of breakwater to shoreline (Non-structural)	Rock riprap 420 CY N. Breakwater 420 CY S. Breakwater	N. Breakwater: 0.06 ac, 20 LF P S. Breakwater: 0.06 ac, 20 LF P
7	Dredged Material	Create water depth for ferry movement (Dredged Material)	Sandy substrate Removal of up to 6,000 CY	0.55 ac P
8	Outfalls (TI/YBI shorelines)	Protect shoreline at outfalls (Structural)	Rock riprap & concrete headwalls +50 CY placed, -220 CY removed (net -170 CY)	0.09 ac P, 250 LF P 0.27 ac T

Effect of Ferry Terminal Breakwaters on Sedimentation
Questions about the effect of the breakwaters on sediment transport, and the potential for sediment accretion around the breakwaters were raised during pre-application meetings with the USACE and RWQCB staff. These questions had particular relevance insofar as making a determination on whether the USACE would classify the breakwaters, as "fill" of waters of the U.S.

The effect of the breakwaters on sedimentation was addressed in the *Treasure Island Ferry Terminal Project Coastal Engineering Assessment* (Skidmore, Owings & Merrill LLP/Moffatt & Nichol, September 14, 2009). The text that follows is taken from that report. A copy of the full report with graphics is provided in electronic format, and is available in hard copy by request. The project described in this application for regulatory permits is identified as Alternative 3 in the text that follows:

> ***"SEDIMENTATION***
>
> *This section evaluates the potential for effects to shoreline stability upcoast or downcoast of the terminal basin, related to the construction of the ferry terminal. The analysis covered two areas: a historical evaluation of shoreline change along the southwest shoreline of Treasure Island and a numerical model assessment of the changes to tidal current patterns in the vicinity of the proposed ferry terminal. The historical evaluation provides an understanding of where along the southwest side of Treasure Island sedimentation may occur and how it may change in response to the terminal construction. The analysis of changes in current patters will provide information regarding where natural sedimentation may be altered. Analysis of changes in current patterns will also provide information regarding the potential for sedimentation within the ferry terminal basin.*
>
> *Aerial photographs of Treasure Island were collected for the time frame of 1947-2002, presented in Figures 5.40 to 5.43. Through this period there is no indication of sediment accretion along the southwest side of Treasure Island. This is likely related to the high energy wave environment which this segment of shoreline along Treasure Island is exposed to. The high energy environment keeps suspended sediment in the water column from settling, and does not provide calm water for the sediment to settle along any portion of the southwest shoreline. The sediment that is mobile is very likely granular sand that moves as bed load only. This portion of the shoreline of Treasure Island is protected by a rock slope almost in its entirety to well above the high tide elevation, suggesting that the high energy wave environment is more likely to erode the island than to allow accretion if the shoreline were unprotected.*
>
> *To determine whether the proposed breakwaters could potentially result in sedimentation within the basin and/or alongshore, tidal currents were simulated under existing and proposed conditions. The 2-dimensional model Mike-21 Hydrodynamics (HD) was used to compare the changes in the current pattern and velocity with each of the proposed*

harbor configurations. Plots of the changes in peak current velocity, both ebb and flood, are shown in Figures 5.44 to 5.49.

The results for existing conditions suggest that the potential for sediment accretion along the outside of the breakwaters and along the adjacent shoreline is low. The existing current velocities and wave environment along these areas prevent accretion along the rock protected shoreline. Along the proposed breakwaters in all options the flood and ebb current decrease slightly compared to existing conditions, which implies that coarser fractions of sediment may settle out and result in deposition. However, the orientation of the breakwater to the wave environment will keep suspended sediment mobile in the water column, and the coarser sediment will very likely be transported into deeper waters off the tip of the breakwaters.

The entrance channel and basin of the Ferry Terminal has the potential for some deposition, particularly under Alternatives 2 and 3. On a flooding tide, the orientation of the breakwaters in relation to the direction of flow prevents flow from being directed into the basin for all options. However, on outgoing tides, flow is directed into the entrance channel basin for Alternatives 2 and 3, which in combination with the low current velocities may result in sedimentation within the basin entrance channel. (This sedimentation would be the result of suspended sediments in the water column settling out, not the bedload material that is referenced above.)"

BOX 10. POTENTIAL FOR IMPACTS TO THREATENED AND ENDANGERED SPECIES

The text provided below describes listed and special-status species with potential to be present in or near the Project site. Text is organized by major groupings of taxa. Impacts of the Project on listed and other special-status species, sensitive natural communities, wildlife movement and intertidal/subtidal marine habitat and biota, are presented, followed by mitigation measures adopted in the FEIR.

A detailed analysis of potential impacts of the Project on ESA listed fish are described in the attached *Biological Assessment and Essential Fish Habitat Assessment for Construction and Long-term Operations and Maintenance of a Ferry Terminal and Stormwater Discharges Located on Treasure Island* (Hanson Environmental, Inc. and Mosaic Associates, November 2014) (hereafter referred to as the Biological Assessment).

Plant Species

No ESA or CESA listed plant species have potential to occur within the Proposed Project area. There are several special-status plant species known to occur on Yerba Buena Island, including the following:

CNPS State Level Species of Conservation Concern
Dune gilia (*Gilia capitata* ssp. *chamissonis*)

CNPS Yerba Buena Chapter as locally significant

- California buckeye (*Aesculus californica*)

- California hazelnut (*Corylus cornuta* var. *californica)*
- Cobwebby thistle* (*Cirsium occidentale* var. *occidentale*)
- Coffee fern (*Pellaea andromedifolia*)
- Dutchman's pipevine* (*Aristolochia tomentosa*)
- Fiesta flower (*Pholistoma auritum*)
- Hollyleaf cherry (*Prunus ilicifolia*) (based on this species' distribution this is not likely to be a native occurrence)
- Maidenhair fern (*Adiantum pedatum*)
- Serpentine springbeauty (*Claytonia exigua* ssp. *exigua*)
- Wood rose (*Argyreia nervosa*)
- Vancouver's ryegrass (*Leymus xvancouverensis*)

*Proposed for addition to CNPS locally significant plants list

Wildlife and Fish Species

ESA and/or CESA-listed species known to occur in or near the site include the following:

- Central California Coast Coho salmon (*Oncorhynchus kisutchs*). Federally threatened, and state endangered
- Sacramento River Winter-run Chinook salmon (*Oncorhynchus tshawytscha*). Federally and state endangered
- Central Valley Spring-Run Chinook salmon (O. *tshawytscha*). Federally threatened ESU
- Central Valley Steelhead trout (O. *mykiss*). Federally threatened ESU
- Central California Coast Steelhead trout (*O. mykiss*). Federally threatened
- Green Sturgeon (*Acipenser medirostris*). Federally threatened
- Longfin smelt (*Spirinchus thaleichthys*). State threatened
- American peregrine falcon (*Falco peregrinus anatum*). State endangered
- California brown pelican (*Pelecanus occidentalis californicus*). Federally and State endangered

Non-listed special-status wildlife and fish known to occur in or near the site include the following:

- Double-crested cormorant (*Phalacrocorax auritus*), California species of special concern
- Harbor seal (*Phoca vitulina richardsi*), protected under the Marine Mammal Protection Act
- Central Valley Fall Run/Late Fall Run Chinook salmon (O. *tshawytscha*). Candidate.

Please see the attached Biological Assessment for information and an analysis of effects of the Project on ESA and CESA listed fish.

Special-status Birds

Peregrine falcon and double-crested cormorant are known to nest on the Bay Bridge, and may use Treasure Island and Yerba Buena Island for foraging and roosting. The brown pelican may use offshore structures and forage in the water off the Islands. The existing environment is one of high ambient disturbance due to the proximity of the Bay Bridge and the noise generated there, and, taken together with the fact that no terrestrial habitat for these species would be affected, the

FEIR prepared for the Project concluded that effects would be less than significant. Accordingly, the Project is not expected to affect these species.

Marine Mammals

Seven species of marine mammals occur within the San Francisco Bay-Delta. The harbor seal (*Phoca vitulina*), California sea lion (*Zalophus californianus*), harbor porpoise (*Phocoena phocoena*), and gray whale (*Eschrichtius robustus*) are the most common species that use the open waters of the Bay-Delta for migrating, foraging, and resting. In the Bay waters surrounding the Islands, the most common species are the harbor seal and the California sea lion. Both species use the waters around the Island for foraging.

The harbor seal is a permanent resident in San Francisco Bay and is routinely seen in waters off the Islands. Seals haul out year-round on Yerba Buena Island, and while pups are occasionally observed there, it is not known to be a pupping site. The haul-out area is within the region of influence but not within the boundaries of the Project. The Yerba Buena Island haul-out site is on the southeast side of the island, on U.S. Coast Guard property. Individual seals may occasionally haul out farther to the west and southwest of the main haul-out site, depending on space availability and conditions at the main haul-out area.

Impacts of the Project on Special-status Species and their Habitats and Mitigation Measures from the TI/YBI FEIR and the WETA FEIR[3]

The impacts included below are limited to those that pertain to special-status species and their habitats and included unique mitigation measures. Impacts that employed mitigation measures duplicated for other impacts (e.g. mitigation measures that reduced the level of significance for more than one impact statement) are not listed below. A synopsis of each impact is provided; for a full description of the effects, see the Biological Resources chapter of the FEIR that is attached.

TI/YBI FEIR Impacts and Mitigation Measures

Impact BI-1: The Proposed Project may adversely affect dune gilia and locally significant plants, special status animals, and protected or special-status marine species, such as marine mammals, salmon, steelhead, green sturgeon, longfin smelt, harbor seals and California sea lions. (*Less than Significant with Mitigation*)

Synopsis of Impact BI-1: Dune gilia and the nine other locally significant plant species are present and may be impacted in the redevelopment area on Yerba Buena Island, but would be protected by the provisions of the HMP. Due to the absence of suitable habitat, construction of the ferry terminal and storm drain outfalls will not result in impacts to these plant species.

The existing environment for special-status animals (peregrine falcon, double-crested cormorant and California brown pelican) is one of high ambient disturbance due to the proximity of the Bay Bridge and the noise generated there, and, taken together with the fact that no terrestrial habitat

[3] URS. *Final Program Environmental Impact Report Expansion of Ferry Transit Service in the San Francisco Bay Area*. June 2003.

for these species would be affected, the FEIR prepared for the Project concluded that effects would be less than significant. Accordingly, the Project is not expected to affect these species.

Potential effects on marine biota would range from short-term (construction) to permanent (habitat loss, exposure to contaminants in runoff, increased interaction between humans and sensitive marine intertidal habitat and protected species). Preliminary results of a sound effects analysis for construction activities are presented in the Biological Assessment, as well as a more detailed description of effects on listed fish. An underwater noise monitoring plan will be prepared and submitted shortly.

Mitigation Measure M-BI-1a: Surveys for Special-Status Plants
On Yerba Buena Island, presence/absence surveys for special-status plants shall be conducted by a qualified botanist prior to any ground disturbance. In the event that special-status plant populations are found during the surveys, the lead agency will avoid disturbance to the species by establishing a visible avoidance buffer zone of not less than 25 feet. If it is not feasible to avoid disturbance or mortality, then special-status plant populations will be restored on-site at a 1:1 ratio in areas that are to remain as post-development open space.

Mitigation Measure M-BI-1b: Pre-project Surveys for Nesting Birds
Pre-project surveys shall be conducted by a qualified biologist for nesting birds between February 1st and August 15th if ground disturbance or tree removal is scheduled to take place during that period. If bird species protected under the Migratory Bird Treaty Act ("MBTA") or the California Fish and Game Code are found to be nesting in or near any work area, an appropriate no-work buffer zone (e.g., 100 feet for songbirds) shall be designated by the biologist. Depending on the species involved, input from the California Department of Fish and Game ("CDFG") and/or the U.S. Fish and Wildlife Service ("USFWS") Division of Migratory Bird Management may be warranted. As recommended by the biologist, no activities shall be conducted within the no-work buffer zone that could disrupt bird breeding. Outside of the breeding season (August 16 – January 31), or after young birds have fledged, as determined by the biologist, work activities may proceed.

Mitigation Measure M-BI-1c: Minimizing Disturbance to Bats
Removal of trees or demolition of buildings showing evidence of bat activity shall occur during the period least likely to impact the bats as determined by a qualified bat biologist (generally between February 15 and October 15 for winter hibernacula and between August 15 and April 15 for maternity roosts). If active day or night roosts are found, the bat biologist shall take actions to make such roosts unsuitable habitat prior to tree removal or building demolition. A no-disturbance buffer of 100 feet shall be created around active bat roosts being used for maternity or hibernation purposes. A reduced buffer could be provided for on a case-by-case basis by the bat biologist, in consultation with CDFG and based on site-specific conditions. Bat roosts initiated during construction are presumed to be unaffected, and no buffer would be necessary.

Mitigation Measure M-BI-1d: Control of Domestic and Feral Animals
To avoid conflicts with wildlife on Yerba Buena Island and the remaining natural habitats on Yerba Buena Island, the Islands' Covenants, Conditions and Restrictions, TIDA Rules and Regulations, and/or other similar enforceable instruments or regulations, shall prohibit off-leash

dogs outside of designated, enclosed, off-leash dog parks on Yerba Buena Island and the feeding of feral cats on both islands. Building tenants shall be provided with educational materials regarding these restrictions, rules, and/or regulations. Non-resident pet owners and the public using the Islands shall be alerted to these restrictions, rules, and/or regulations through appropriate signage in public areas.

With these mitigation measures in place, in addition to the implementation of a HMP, the potential impacts would be less than significant. Measures within the HMP include the removal of non-native vegetation (including trees) in addition to hand-seeding and hydroseeding with native species, and/or planting container stock of native species.

Although non-native plant species are abundant within the Project Area surrounding landscape, the goal of reducing their numbers would help native plants and wildlife. Non-native species would be removed during habitat enhancement related efforts and monitored to ensure against reestablishment within the Project Area.

Mitigation Measure M-BI-1e: Monitoring During Off-Shore Pile Driving
Site-specific conditions during all offshore pile driving shall be monitored by a qualified marine biologist to ensure that aquatic species within the project area would not be impacted, that harbor seals at nearby Yerba Buena Island, at occasional Treasure Island haul-outs, and while in transit along the western shoreline of Treasure Island during work on the Ferry Terminal and in Clipper Cove during work on the Sailing Center, are not disturbed, and that sound pressures outside the immediate project area do not exceed 160 dB at 500 meters from the source. If this threshold is exceeded or avoidance behavior by marine mammals or fish is observed by the on-site marine biologist, bubble curtains will be used to reduce sound/vibration to acceptable levels.

In addition the following measures shall be employed to further reduce noise from pile-driving activities:

- Use as few piles as necessary in the final terminal design;
- Use vibratory hammers for all steel piles;
- Use cushion blocks between the hammer and the pile;
- Restrict pile driving to June 1 to November 30 work window as recommended by NOAA Fisheries to protect herring and salmonids;
- If marine mammals are observed within 1,000 feet of pile driving activities, allow them to completely exit the vicinity of the pile driving activities before pile driving resumes.

Impact BI-2: The project may adversely affect Central Coast Riparian Scrub (riparian habitat), California Buckeye, or SAV/eelgrass beds (other sensitive natural communities). (*Less than Significant with Mitigation*)

Synopsis of Impact BI-2: Implementation of the HMP will ensure protection and/or enhancement of the Central Coast Riparian Scrub and California Buckeye natural communities that occur on Yerba Buena Island. No special-status natural communities occur on Treasure Island.

Multiple submerged aquatic vegetation (SAV) beds surround Treasure Island. An extensive eelgrass bed is present along the eastern shoreline of Treasure Island, and a smaller bed is

present to the north of the island. Red and brown marine algae are present in the lower rocky intertidal and near subtidal habitat surrounding both Islands. Eelgrass and SAV may be affected by outfall construction. No eelgrass is present in the vicinity of the ferry terminal. Construction level BMPs, shoreline work construction limited to the period between March and November and design and implementation of stormwater quality controls will minimize effects.

Impacts on eelgrass and SAV beds, and intertidal and near subtidal zones would be avoided, minimized and mitigated through implementation of the following measures adopted in the FEIR

Mitigation Measure M-BI-2a: Restriction of Construction Activities
Geotechnical stabilization, shoreline heightening and repair work, stormwater outfall improvements, and other Project activities conducted in and around the Islands' rocky shoreline shall be generally restricted to the terrestrial and upper intertidal zones. Activities in the lower intertidal and near subtidal zone shall be minimized to the maximum extent practicable, using the smallest area and footprint for disturbance as possible. Outside of planned dredging areas (Ferry Terminal) movement and disturbance of existing rocks in the lower intertidal zone shall be prohibited.

Mitigation Measure M-BI-2b: Seasonal Limitations on Construction Work
Construction work on the Islands' shoreline shall be conducted between March 1 and November 30 to avoid any disturbance to herring spawning occurring in SAV surrounding Treasure Island.

Mitigation Measure M-BI-2c: Eelgrass Bed Survey and Avoidance
Within three to six months of the initiation of construction activities that might affect SAV beds, and not less frequently than biennally (every two years) thereafter, all eelgrass beds shall be surveyed or otherwise identified, including their proximity and potential impact from ongoing or pending onshore or offshore construction activities identified. All TIDA staff in charge of overseeing construction for the Proposed Project, and all construction contractors and subcontractors involved in Project construction activities in Bay waters that are within a quarter mile of Treasure Island and Yerba Buena Island, along Treasure Island's shoreline, or involved in transporting materials and supplies by water to either Island shall be required to undergo thorough environmental training. This training shall present information on the locations of all eelgrass beds, the kinds of construction and vessel transit activities that can impact eelgrass beds, all mitigation measures that contractors must adhere to so that any disturbance or damage to eelgrass beds may be avoided and the beds protected and who to notify in the event of any disturbance. Any work barges or vessels engaged in construction activities shall avoid transiting through and anchoring in any eelgrass beds located around Treasure Island. TIDA personnel responsible for overseeing Project contractors, as well as all Project contractor and subcontractor management personnel, shall ensure that all boat operators and work crews are aware of eelgrass bed locations and the requirement to avoid disturbing them.

Impact BI-4: The project may adversely affect the movement of migratory birds, rafting waterfowl, and/or fish passage. *(Less than Significant with Mitigation for migratory birds and fish passage; Significant and Unavoidable for rafting waterfowl*)

Synopsis of impact BI-4: Treasure Island's location in the Central Bay and proximity to foraging habitat for at least 500,000 spring migrating shorebirds and the development of multi-story

buildings increases the potential for building collisions and impacts on migratory or resident birds.

Increased ferry traffic to and from Treasure Island could have a negative effect on rafting bird species. Different species have varying distance tolerances before becoming disturbed, but if disturbed, they can be flushed from foraging or resting areas. Diving ducks such as scaup and scoter are especially sensitive to ferry traffic. Long-term effects consist of site abandonment, reduced migration, and reduced reproductive success (JB include citations).

Treasure Island's geographic location in the middle of Central San Francisco Bay forces fish and marine mammals to pass along the Island's eastern or western shorelines. Construction activities at the Ferry Terminal could result in temporary avoidance or a shift in fish and marine mammal movements along either side of the island, cause increased water turbidity from dredging, and impact hammer noise. Protected marine species potentially affected include harbor seals, California sea lions, chinook salmon, steelhead trout, green sturgeon, and longfin smelt

Dredging operations would occur during approved USACE LTMS dredging windows to avoid important migration periods for salmon, steelhead trout, and green sturgeon, as well as Pacific herring spawning. Implementation of Mitigation Measure M-BI-1e (pile driving monitoring by a qualified marine biologist and implementation of additional noise reducing practices), is expected to render the transmission of noise from pile driving activities to less than 160 dB at 500 meters distance from the pile driving activity and therein reduce potential effects to all protected fish and marine mammal species to less-than-significant levels.

Mitigation Measure M-BI-4a: Minimizing Bird Strikes

Building Design and Landscaping

Prior to the issuance of the first building permit for each building in the Proposed Project, project applicants shall have a qualified biologist experienced with bird strikes review the design of the building to ensure that it sufficiently minimizes the potential for bird strikes and report to the Planning Department. The Planning Department may consult with resource agencies such as the California Department of Fish and Game or others, as it deems appropriate.

The building developer shall provide to the Planning Department a written description of the measures and features of the building design that are intended to address potential impacts on birds, with a copy to TIDA of the final measures approved by the Planning Department or Commission. Building developers are encouraged to coordinate with the Planning Department early in the design process regarding design features intended to minimize bird strikes. The design shall include some of the following measures or measures that are equivalent to, but not necessarily identical to, those listed below, as new, more effective technology for addressing bird strikes may become available in the future:

- Employ design techniques that create "visual noise" via cladding or other design features that make it easy for birds to identify buildings as such and not mistake buildings for open sky or trees;
- Decrease continuity of reflective surfaces using "visual marker" design techniques, which techniques may include:

  - Patterned or fritted glass, with patterns at most 28 centimeters apart,
  - One-way films installed on glass, with any picture or pattern or arrangement that can be seen from the outside by birds but appear transparent from the inside,
  - Geometric fenestration patterns that effectively divide a window into smaller panes of at most 28 centimeters, and/or
  - Decals with patterned or abstract designs, with the maximum clear spaces at most 28 centimeters square.
- Up to 40 feet high on building facades facing the shoreline, decrease reflectivity of glass, using design techniques such as plastic or metal screens, light-colored blinds or curtains, frosting of glass, angling glass towards the ground, UV-A glass, or awnings and overhangs;
- Eliminate the use of clear glass on opposing or immediately adjacent faces of the building without intervening interior obstacles such that a bird could perceive its flight path through the glass to be unobstructed;
- Mute reflections in glass using strategies such as angled glass, shades, internal screens, and overhangs; and
- Place new landscapes sufficiently away from glazed building facades so that no reflection occurs. Alternatively, if planting of landscapes near a glazed building façade is desirable, situate trees and shrubs immediately adjacent to the exterior glass walls, at a distance of less than 3 feet from the glass. Such close proximity will obscure habitat reflections and will minimize fatal collisions by reducing birds' flight momentum.

Lighting

The Planning Department shall similarly ensure that the design and specifications for buildings on non-Trust property, and TIDA shall ensure that the design and specifications for sports facilities/playing fields and buildings on Trust property, implement design elements to reduce lighting usage, change light direction, and contain light. These include, but are not limited to, the following considerations:

- Avoid installation of lighting in areas where not required for public safety;
- Examine and adopt alternatives to bright, all-night, floor-wide lighting when interior lights would be visible from the exterior or exterior lights must be left on at night, including:
  - Installing motion-sensitive lighting,
  - Installing task lighting,
  - Installing programmable timers, and
  - Installing fixtures that use lower-wattage, sodium, and blue-green lighting.
- Install strobe or flashing lights in place of continuously burning lights for obstruction lighting.
- Use rotating beams instead of continuous light; and
- Where exterior lights are to be left on at night, install fully shielded lights to contain and direct light away from the sky, as illustrated in the City of Toronto's Bird Friendly Building Guidelines.

Antennae, Monopole Structures, and Rooftop Elements
The Planning Department shall ensure, as a condition of approval for every building permit that buildings minimize the number of and co-locate rooftop-antennas and other rooftop equipment, and that monopole structures or antennas on buildings, in open areas, and at sports and playing fields and facilities do not include guy wires.

Educating Residents and Occupants
The Planning Department shall ensure, as a condition of approval for every building permit, that the permit applicant agrees to provide educational materials to building tenants and occupants, hotel guests, and residents encouraging them to minimize light transmission from windows, especially during peak spring and fall migratory periods, by turning off unnecessary lighting and/or closing window coverings at night. TIDA shall review and approve the educational materials prior to building occupancy.

Documentation
TIDA shall document undertaking the activities described in this mitigation measure and maintain records that include, among others, the written descriptions provided by the building developer of the measures and features of the design for each building that are intended to address potential impacts on birds, and the recommendations and memoranda prepared by the qualified biologist experienced with bird strikes who reviews and approves the design of the building or sports facilities / playing fields to ensure that it sufficiently minimizes the potential for bird strikes.

Mitigation Measure M-BI-4b: Changes in Ferry Service to Protect Rafting Waterbirds
Waterfowl numbers generally peak in December, with reduced populations during January, and into the spring months. Ferries between San Francisco and Treasure Island shall operate in reduced numbers and slower speeds during December and January; alternatively, during this period ferries, to the extent practicable, shall maintain a buffer zone of 250 meters from areas of high-use by rafting waterbirds.

Reducing speeds or the number of ferry runs would reduce the overall passenger capacity of this transit mode. Because ferries would operate well below capacity, implementation of this measure would not result in a significant impact on ferry capacity. To the extent that increased headways or slower trips might discourage ferry use and induce travel by bus or automobiles, this mitigation measure could exacerbate already significant impacts identified in Section IV.E, Transportation. Mitigation Measure M-TR-2, p. IV.E.74, would reduce this impact to less-than-significant levels; however, as stated in Section IV.E, because full funding for the measure is not assured, the impact would remain significant and unavoidable. (*Sections cited above can be accessed in the FEIR*).

In addition, because adoption of this measure by the Water Emergency Transit Authority ("WETA") is not assured and is outside the jurisdiction of the City, the impact on rafting waterfowl is determined to be potentially significant and unavoidable.

Impacts of the Project on Special-status Species and Mitigation Measures (from the WETA FEIR)

Because the impact analysis and mitigation measures from the WETA FEIR copied below are relevant to the operation of the Treasure Island ferry, they are included in this application. They document an environmental commitment that would reduce the potential effect of ferry operations on gray whales.

Impact B-15: High-speed ferries could potentially strike gray whales in San Francisco Bay.

Synopsis of Impact B-15: Because of the increase in gray whale sightings in San Francisco Bay over the last several years, concern exists about collisions between whales and vessels during normal operations. Modeling efforts to estimate the probability of a vessel striking a whale did not produce useful results. Because gray whales are sighted in the Bay, there is at least some potential for a ferry to strike a whale at some point.

Mitigation B-15.1**:** Ferry operators should be aware of the potential for whales entering the Bay and should be familiar with spotting whales at the surface. The USCG reports whale sightings and distance to vessels when they receive a report of a whale sighting. Ferry captains should be made aware of these reports and exercise diligence when a whale sighting has been reported. The ferry system should implement a program of informing ferry operators of whale sightings and locations. For example, if one captain sights a whale, it should be reported through a network to all other captains. Operators should be informed or reminded during seasonal periods of heightened whale activities or presence. If whale sightings continue to increase in the Bay, having dedicated lookouts on board or other detection equipment could be warranted. Devices (such as sound generating equipment) used to scare whales from the area may be considered intentional harassment by NMFS and would not likely be allowed.

Mitigation B-15.2: Ferries could be equipped with a whale detection system such as forward-looking sonar. Such a system is currently under development and being tested on a NOAA vessel in Cape Cod Bay.

Impact after Mitigation: Implementation of Mitigations B-15.1 and B-15.2 would reduce the chances of a whale strike; however, some probability, though small, would still remain of an accident occurring. One gray whale represents approximately 0.004 percent of the total estimated population of 26,000 whales along the Pacific coast, and the rare occurrence of a whale strike would not likely have an effect on long-term regional gray whale populations. However, the possibility of a whale strike is still considered potentially significant.

Box 10. Information Sources

Applied Marine Science. *Benthic Survey of Proposed Treasure Island, California Redevelopment Ferry Terminal Location*. Report prepared for the Treasure Island Redevelopment Project, San Francisco, CA. May 2009. Electronic copy provided. Hard copy available upon request.

Applied Marine Sciences, Inc. *Survey of Intertidal Habitat and Marine Biota at Treasure Island and Along the Western Shoreline of Yerba Buena Island*. Report prepared for the Treasure Island Redevelopment Project, San Francisco, CA. April 2009. Electronic copy provided. Hard copy available upon request.

City and County of San Francisco. *Final Environmental Impact Statement, Treasure Island/Yerba Buena Island Redevelopment Project*. April 21, 2011. Biological Resources Chapter is attached.

Conger Moss Guillard, ESA and Wood Biological Consulting. *Yerba Buena Habitat Management Plan*. March 2011. Available upon request.

Hanson Environmental, Inc. and Mosaic Associates. *Biological Assessment and Essential Fish Habitat Assessment for Construction and Long-term Operations and Maintenance of a Ferry Terminal and Stormwater Discharges Located on Treasure Island*. November 2014. Attached.

Merkel & Associates. *Eelgrass Habitat Surveys for the Emeryville Flats and Clipper Cove, Yerba Buena Island*. October 1999-2005, and 2007. Prepared for the California Department of Transportation. January 2008. Electronic copy provided. Hard copy available upon request.

U.S. Fish and Wildlife Service. *Species List for Treasure Island/Yerba Buena Island Redevelopment Project.* September 18, 2014. Attached.

BOX 11. AVOIDANCE OF IMPACTS

The Treasure Island/Yerba Buena Island Redevelopment Project entails the redevelopment of portions of both islands over a 10-15 year period. Redevelopment will convert approximately 367 acres on TI and approximately 94 acres on YBI from a former military base to a dense, mixed-use development (See Figure II.4 from FEIR shown below).

The Development Plan for the Project includes:

- Geotechnical stabilization of Treasure Island and the causeway connecting it to Yerba Buena Island, and addition of fill to raise the surface elevation on Treasure Island to address flood protection and potential future sea level rise;
- Up to approximately 8,000 residential units;
- Up to approximately 140,000 sq. ft. of new commercial and retail space;
- Up to approximately 100,000 sq. ft. of new office space;
- Adaptive reuse of Buildings 1, 2, and 3 with up to 311,000 sq. ft. of commercial/flex space;
- Rehabilitation of the historic buildings on Yerba Buena Island;
- Retention and continued use of the existing chapel in its existing location for general assembly and non-denominational religious activities;
- Up to approximately 500 hotel rooms;
- New and/or upgraded public facilities, including a joint police/fire station, a school, and other community facilities;

- New and/or upgraded public utilities, including the water distribution system, wastewater collection and treatment, recycled water system, and stormwater collection and treatment;
- Approximately 300 acres of parks and public open space, including cultural uses such as a museum;
- New and/or upgraded streets and public ways;
- Bicycle, transit, and pedestrian facilities;
- A Ferry Terminal and intermodal Transit Hub.

Construction of the Project will require extensive earthwork and the importation of fill material on Treasure Island, building demolition and reuse, vegetation removal and landscaping, and augmentation of the shoreline revetment surrounding Treasure Island above mean high water, among the elements listed above. Impacts of the Project on biological resources and mitigation measures to avoid, minimize and mitigate the effects of the Project are described above in Box 10.

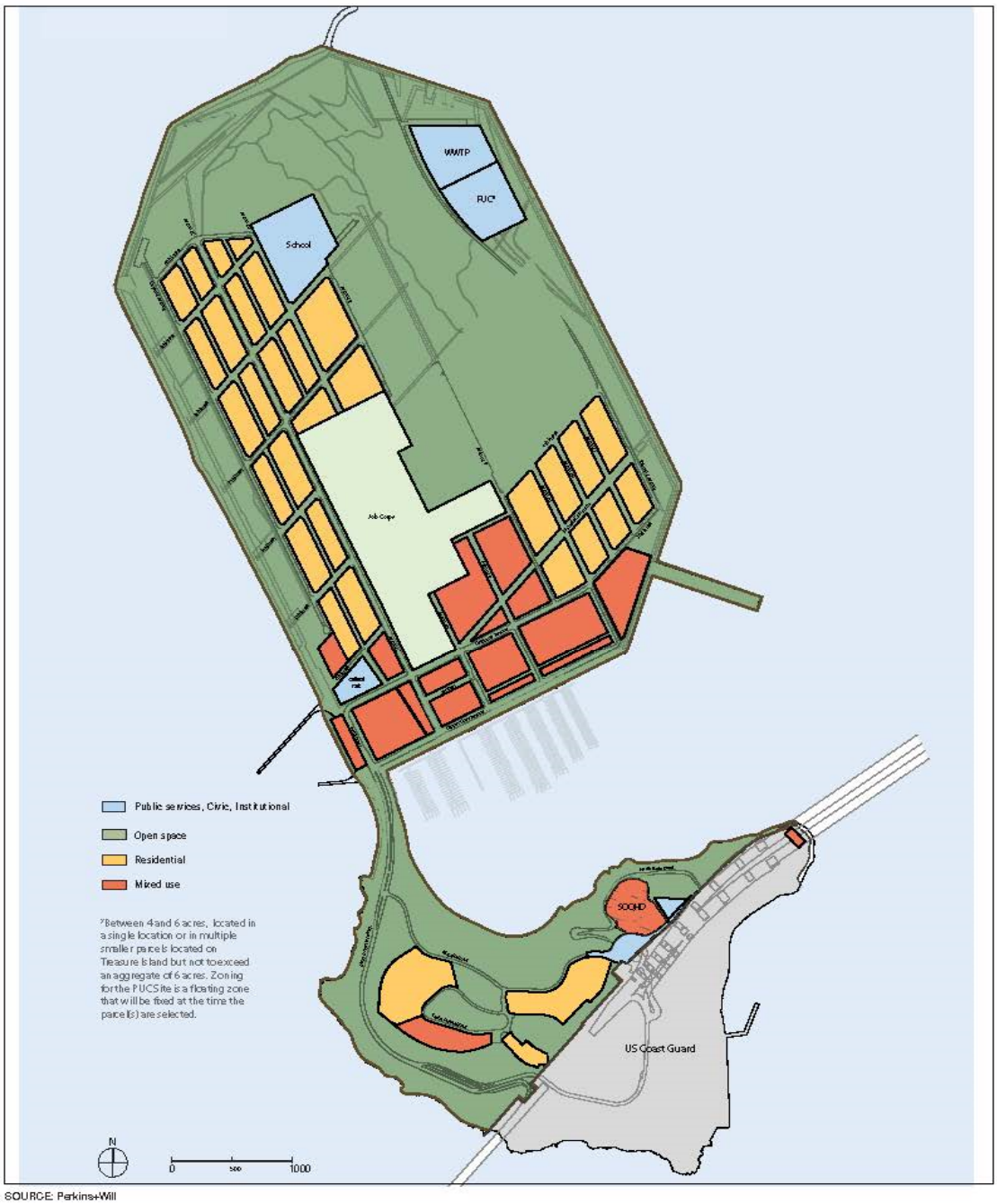
The attached *Clean Water Act Section 404(b)(1) Alternatives Analysis Treasure Island/Yerba Buena Island Redevelopment Project: Ferry Terminal and Stormwater Discharge Outfalls* (Geier & Geier Consulting, Inc., November 2014) evaluates the effect of the Project and alternatives on waters of the U.S. It demonstrates that the Proposed Project is the least environmentally damaging practicable alternative (LEDPA) when compared with other alternatives that achieve the goals of the Project. Impacts of the Project on waters of the U.S. and State have been avoided to the maximum extent practicable, and unavoidable impacts for the ferry terminal and outfalls have been minimized as described below.

Ferry Terminal
The discharge of structural and non-structural fill has been minimized. Concrete sheetpiles are used for breakwaters rather than rock riprap which would result in a larger area and volume of discharge, and provide habitat for non-native predatory fish. The width of the breakwaters and the resulting area of fill and shading has been reduced from earlier design concepts.

The area of rock riprap used to connect the breakwaters to the shoreline has been minimized, and public access areas atop the rock slopes have been eliminated in order to reduce the area of fill discharges in waters of the U.S. and state.

The gangway and pier are elevated above the water surface, which will minimize shading effects. Pier construction piles will be used to support these structures, rather than solid fill.

Stormwater Treatment and Storm Drain Outfalls
While the density of development on the Islands will increase with development of the Project, the design and construction of a stormwater treatment plan that meets the SFPUC design standards and guidelines will ensure that that Project meets water quality objectives specified in the Basin Plan. A copy of portions of the Treasure Island Infrastructure Plan that describe the proposed stormwater system is attached. Elements of the Infrastructure Plan will be further detailed in the Master Stormwater Treatment Plan, which is presently in development; a copy will be provided shortly.



SOURCE: Perkins+Will

TREASURE ISLAND AND YERBA BUENA ISLAND REDEVELOPMENT PROJECT EIR

FIGURE II.4: CONCEPTUAL LAND USE PLAN

BOX 12. MITIGATION

Impacts of the Project on special-status species and habitats and mitigation measures described above in Box 10 will be implemented during the course of construction. Impacts of the Project on waters of the U.S. and state are described above in Box 8B, Tables 1, 2 and 3. Additional mitigation to offset impacts of the Project on waters of the U.S. and state, or effects of the ferry terminal facilities on the ecological functions and values of intertidal and subtidal habitats is not proposed at this time.

BOX 14 ENVIRONMENTAL IMPACT DOCUMENTATION

List of Commenters (from the TI/YBI FEIR)

Name and Address	Date
From Volume 5 – Appendix J – DEIR Comment Letters	
BCDC Will Travis 455 Golden Gate, Suite 10600 San Francisco, CA 94102	August 4, 2010 (Will Travis) September 9, 2010 (Karen Weiss)
Arnold Schwarzenegger State Capitol Sacramento, CA 95814	March 11, 2010
Bernard Choden Fax: (415) 929-7715 choden@sbcglobal.net	August 5, 2010
Michael Lynes Golden Gate Audubon Society 2530 San Pablo Avenue, Suite G Berkeley, CA 94702	August 12, 2010 September 10, 2010
Jorge Garcia 306 Fell Street San Francisco, CA 94102-5143 Jorge.garcia@gmail.com	August 21, 2010
Christopher Pederson 201 Laguna Street, #9 San Francisco, CA 94102 chpederson@yahoo.com	August 22, 2010
William R. Kirkpatrick East Bay Municipal Utility District 375 Eleventh Street Oakland, CA 94607-4240	August 25, 2010
Ron Miguel San Francisco Planning Commission 600 De Haro Street	August 27, 2010

Name and Address	Date
San Francisco, CA 94107	
Treasure Island/Yerba Buena Island Citizens' Advisory Board One Avenue of the Palms, Suite 241 San Francisco, CA 94130	August 18, 2010
Ron Downing Golden Gate Bridge Highway & Transportation District 1011 Andersen Drive San Rafael, CA 94901-5381	August 30, 2010
P.M. McMillin U.S. Coast Guard Product Line Division Portfolio Management Branch 1301 Clay Street, Suite 700N Oakland, CA 94612-5203	September 3, 2010
Donald Gorman 2139 Grant Street, #1 Berkeley, CA 94703	September 3, 2010
Todd Brennen Yerba Buena Island Residence Association Inc. Yerba Buena Island Residence Mutual Benefit Corporation 115 A Forest Road San Francisco, CA 94130	September 6, 2010
Anthony F. Gantner Attorney at Law 235 Chestnut Street San Francisco, CA 94133 afgantner@aol.com	September 8, 2010
Judy Irving Pelican Media 1736 Stockton Street, Suite 2 San Francisco, CA 94133	September 8, 2010
Johannes Hoffman Employment and Training Administration U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, D.C. 20210 Hoffman.johannes@dol.gov	September 9, 2010
Lisa Carboni California Department of Transportation 111 Grand Avenue P.O. Box 23660	September 9, 2010

Name and Address	Date
Oakland, CA 94623-0660	
Mike Buhler San Francisco Architectural Heritage 2007 Franklin Street San Francisco, CA 94109	September 9, 2010
Nick S. Rossi Law Office of Nick S. Rossi 845 Jefferson Street Nampa, CA 94559	September 9, 2010
Kathrin Moore San Francisco Planning Commissioner, No address given	September 10, 2010
Hisashi Sugaya hbsugs@sbcglobal.net	Not dated
John Elberling TIDA Board Member	September 10, 2010
Cory LaVigne Director of Service Development and Planning AC Transit 1600 Franklin Street Oakland, CA 94612	September 10, 2010
Grace Kato California State Lands Commission 100 Howe Avenue, Suite 100-South Sacramento, CA 95825-8202	September 10, 2010
Maureen Gaffney San Francisco Bay Trail Association of Bay Area Governments P.O. Box 2050 Oakland, CA 94607-4756	September 10, 2010
Jean Roggenkamp Bay Area Air Quality Management District 939 Ellis Street San Francisco, CA 94109	September 10, 2010
William Robberson San Francisco Boardsailing Association 1592 Union Street P.O. Box 301 San Francisco, CA 94123	September 10, 2010
Michael F. McGowan, Ph.D. Arc Ecology 4634 3rd Street San Francisco, CA 94123	September 10, 2010 February 26, 2008
Eric Brooks	September 10, 2010

Name and Address	Date
San Francisco Green Party 288 Onondaga Avenue, #4 San Francisco, CA 94112 brookse@igc.org	
Ruth Gravanis 74 Mizpah Street San Francisco, CA 94131	September 10, 2010
Mark R. Connors Good Neighbors of Treasure Island and Yerba Buena Island Good_Neighbors@comcast.net	September 10, 2010
Mark Connors No address, Treasure Island resident	September 10, 2010
Howard Strassner Transportation Committee 419 Vicente San Francisco, CA 94116 San Francisco Group Sierra Club 85 Second Street P.O. Box SFG San Francisco, CA	September 10, 2010
Tom Radulovich Livable City and Walk San Francisco 995 Market Street, Suite 1450 San Francisco, CA 94103 tom@livablecity.org	September 10, 2010
Jennifer Clary San Francisco Tomorrow 41 Sutter Street, Suite 1579 San Francisco, CA 94104-4903	September 10, 2010
Vedica Puri Telegraph Hill Dwellers P.O. Box 330159 San Francisco, CA 94133	September 10, 2010
Jared Blumenfeld Department of the Environment City and County of San Francisco 11 Grove Street San Francisco, CA 94102	February 25, 2008
Paul T. Currier 41 Jones Street, Suite 609 San Francisco, CA 94102	September 10, 2010

Name and Address	Date
paulcurrier@me.com	
Andy Thornley San Francisco Bicycle Coalition 833 Market Street, 10th Floor San Francisco, CA 94103	September 10, 2010
Chris Stockton Architect 274 Chestnut Street San Francisco, CA 94133 CAstockton@gmail.com	September 14, 2010
Dave Campbell East Bay Bicycle Coalition P.O. Box 1736 Oakland, CA 94604	September 21, 2010
Neil Malloch P.O. Box 2012 San Francisco, CA 94126	September 14, 2010

BOX 15. NAMES AND ADDRESSES OF ADJOINING PROPERTY OWNERS

U.S. Department of Labor Job Corps Center, 351 H Avenue, Building 442, San Francisco, CA 94139-5027. (415) 277-2400

U.S. Coast Guard Sector San Francisco, 1 Yerba Buena Rd, San Francisco, CA 94130. (415) 399-3530

Federal Highway Administration (FHWA) land occupied by the San Francisco-Oakland Bay Bridge and tunnel structures. Yerba Buena Island. 201 Mission St. #1700, San Francisco, CA 94105. (415) 744-3100

Department of the Navy, John Hill (Base Closure Manager), Navy BRAC PMO West, 1455 Frazee Road, Suite 900, San Diego, CA 92108. (619) 532-0985