PORT OF LOS ANGELES
HARBOR HABITAT MITIGATION BANK

Bank Enabling Instrument
and Exhibits

Bank Sponsor:
City of Los Angeles, Harbor Department

December 2017

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TRANSMITTAL 1

BANK ENABLING INSTRUMENT
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BANK ENABLING INSTRUMENT
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This Bank Enabling Instrument ("BEI"), dated this _____ day of _____, 20__, is made by and among the City of Los Angeles ("City") acting by and through its Los Angeles Board of Harbor Commissioners ("Board"), the Los Angeles District of the U.S. Army Corps of Engineers ("USACE"), Region IX of the U.S. Environmental Protection Agency ("USEPA"), the U.S. Fish and Wildlife Service ("USFWS"), and the National Marine Fisheries Service ("NMFS"). USACE, USEPA, USFWS, and NMFS comprise and are referred to jointly as the Interagency Review Team ("IRT"). In this BEI, the City is both the Bank Sponsor and the Property Manager. The City and the IRT are hereinafter referred to jointly as the "Parties." This BEI sets forth the agreement of the Parties regarding the establishment, use, operation, and maintenance of the Port of Los Angeles Harbor Habitat Mitigation Bank (the "Bank").

RECITALS

A. City, as Bank Sponsor, is responsible for establishing, operating, and maintaining the Bank according to this BEI.

B. City, as Property Manager, acting by and through its Board, possesses, manages, supervises, and controls approximately 4,300 acres of surface land and 3,200 acres of submerged lands and water located in San Pedro Bay, City and County of Los Angeles, State of California (Port of Los Angeles or "Port"). The Port is generally shown on **Exhibit A-1** and legally described in the City of Los Angeles Charter, Article VI, Section 651 and the California Tidelands Trust Act, Chapter 656, Statutes 1911, as amended.

C. The Bank consists of seven sites, totaling approximately 374 acres, previously constructed in the Los Angeles Harbor as provided in the *Memorandum of Understanding Among the Harbor Department of the City of Los Angeles, the California Department of Fish and Game, the National Marine Fisheries Service, and the Fish and Wildlife Service to Establish a Procedure for Advance Compensation of Marine Habitat Losses Incurred by Selected Port Development Projects Within the Harbor District of the City of Los Angeles* (known and referred to as the "Inner Harbor Agreement") executed in 1984 and the *Memorandum of Agreement Among the City of Los Angeles, the California Department of Fish and Game, the National Marine Fisheries Service, and the Fish and Wildlife Service to Establish a Procedure For On-site Compensation of Marine Habitat Losses Incurred by Port Development Landfills within the Harbor District of the City of*

Los Angeles (known and referred to as the "Outer Harbor Agreement") executed in 1997. These existing seven sites (referred to in this BEI as the "Bank Sites") are generally shown on the Map of Bank Sites (**Exhibit D-2**) and legally described in the Legal Descriptions of Bank Sites (**Exhibit D-3**) attached hereto. These Bank Sites are to be conserved as provided in Section VIII.

D. USACE and USEPA have jurisdiction over Waters of the United States pursuant to the Clean Water Act, 33 U.S.C. § 1251, *et seq.* and USACE has jurisdiction over navigable Waters of the United States pursuant to the Rivers and Harbors Act of 1899, 33 U.S.C. § 401, *et seq.*

E. USFWS and NMFS have jurisdiction over the conservation, protection, restoration, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of these species within the United States pursuant to the Endangered Species Act, 16 U.S.C. § 1531, *et seq.*, the Fish and Wildlife Coordination Act, 16 U.S.C. §§ 661-666c, the Fish and Wildlife Act of 1956, 16 U.S.C. § 742(f), *et seq.*, and other provisions of federal law. NMFS also has jurisdiction over the conservation, protection, restoration, and management of certain living marine resources and the habitat necessary for biologically sustainable populations of these resources within the United States pursuant to the Magnuson-Stevens Fishery Conservation and Management Act, as amended, 16 U.S.C. § 1801.

F. The IRT is the interagency group which oversees the establishment, use, operation, and maintenance of the Bank.

G. Initially capitalized terms used and not defined elsewhere in this BEI are defined in Section II.

AGREEMENT

NOW, THEREFORE, the Parties hereby agree as follows:

Section I: Purpose and Authorities

A. Purpose

The purpose of this BEI is to set forth the agreement of the Parties regarding the establishment, use, operation, and maintenance of the Bank.

B. Authorities

The establishment and use of the Bank for Compensatory Mitigation is governed by one or more of the following statutes, regulations, policies, and guidelines:

1. Federal

   i. Clean Water Act (33 U.S.C. § 1251, et seq.);

   ii. Rivers and Harbors Act (33 U.S.C. § 401, et seq.);

   iii. National Environmental Policy Act (42 U.S.C. § 4321, et seq.);

   iv. Fish and Wildlife Coordination Act (16 U.S.C. § 661, et seq.);

   v. Magnuson-Stevens Fishery Conservation and Management Act 16 U.S.C. § 1801 et seq.;

   vi. National Historic Preservation Act (54 U.S.C. § 306108);

   vii. Regulatory Programs of USACE (33 CFR Parts 320-332);

   viii. Guidelines for Specification of Disposal Sites for Dredged and Fill Material (40 CFR Part 230);

   ix. Executive Order 11990 - Protection of Wetlands;

   x. Executive Order 11988 - Floodplain Management; and

   xi. Memorandum of Agreement between USEPA and the Department of the Army (DA) concerning the Determination of Mitigation Under the Clean Water Act, § 404(b)(1) Guidelines (February 6, 1990), as amended.

2. State

   i. California Environmental Quality Act (CEQA) Public Resources Code § 21000 *et seq.* and State CEQA Guidelines Tit. 14 Cal. Code Regs., Ch. 3;

ii. California State Office of Historical Preservation Public Resources Code § 5020 *et seq*. Archaeological, Paleontological, and Historical Sites Public Resources Code § 5097, *et seq*. Native American Historical, Cultural, and Sacred Sites Public Resources Code § 5097.9; and Historical Resources Public Resources Code § 21084.1;

iii. California Public Resources Code §§ 6009.1, 6305, and 6306; and

iv. California Statute of 1911 and Chapter 656 as amended.

3. City

i. Official City of Los Angeles Charter (City Charter), particularly §§ 650-657.

Section II: Definitions

For the purposes of this BEI, the initially capitalized terms used and not defined elsewhere in this BEI are defined as set forth below.

"Adaptive Management" is an approach to natural resource management that incorporates changes to management practices. These changes include corrective actions determined appropriate by the IRT in discussion with the Bank Sponsor based on Bank Site annual report results and IRT review of overall Bank Site performance and compliance. Adaptive Management includes development of a management strategy that anticipates likely challenges associated with compensatory mitigation projects and provides for the implementation of actions to address those challenges, as well as unforeseen changes to those Bank Sites. It requires consideration of the risk, uncertainty, and dynamic nature of Bank Sites and guides modification of those projects to optimize performance. It includes the selection of appropriate measures that will ensure that the aquatic resource functions are provided and involves analysis of monitoring results to identify potential problems of a Bank Site and the identification and implementation of measures to mitigate those problems.

"Bank" is the collection of all Bank Sites approved by the Parties.

"Bank Enabling Instrument" means the legal document for the establishment, operation, and use of a mitigation bank.

"Bank Establishment Date" is the date determined pursuant to Section V, when the Bank is considered established and Transfer of Credits may begin.

"Bank Site" is a discrete site within the Port at which a bank project is performed.

"Bank Sponsor" is the City acting by and through the Board.

"Catastrophic Event" shall mean an unforeseen event, such as, but not limited to, the impact of a vehicle or falling aircraft, which has a material and detrimental impact on a Bank Site, and over which neither the Bank Sponsor nor the Property Manager has control.

"Compensatory Mitigation" means the restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts associated with a Department of the Army permit which remain after all appropriate and practicable avoidance and minimization has been achieved.

"Conservation Land Use Agreement" is an agreement between the City and USACE to ensure the long-term protection of a Bank Site. The Conservation Land Use Agreement for the Bank Sites is attached as **Exhibit D-1**.

"Constrained Harbor Habitat" comprises areas with reduced tidal circulation, greater freshwater input from storm drains, or other conditions that have been shown to reduce the quality or extent of aquatic functions compared to other Harbor Habitats as designated in **Exhibit A-2**.

"Credit Release" means an action by USACE to make specified Credits available for Transfer pursuant to this BEI, as set forth in Section VII.

"Credits" are units of measure representing the accrual, attainment, or protection of aquatic functions in the Bank Site. The relative value of Credits is defined in **Exhibit E-1**.

"Development Plan" means the general plan governing construction and habitat establishment, restoration and enhancement activities required to be conducted on a Bank Site to produce new Credits.

"Enhanced Harbor Habitat" comprises relatively shallow areas (less than -20 feet mean lower low water [MLLW]) with full tidal exchange that provide greater value to fish and birds as designated in **Exhibit A-2**. Enhanced Harbor Habitat specifically excludes the Pier 400 Submerged Storage Site, as provided in the *Interagency Agreement – Port of Los Angeles Pier 400 Submerged Storage Site*, executed in 2002, and incorporated herein in **Exhibit G-2**.

"Force Majeure" shall mean an event or circumstance that: 1) was neither foreseen nor foreseeable by the Bank Sponsor, Property Manager, or Signatory Agencies; and 2) has a material and detrimental impact on the Bank Site; and 3) neither the Bank Sponsor nor Property Manager (or anyone acting on behalf or under the control of either of these entities) caused or could have prevented; and 4) prevents the Bank Sponsor or Property Manager from achieving an objective or undertaking an action required of it under this BEI; provided that the event or circumstance is limited to the following:

i. War, insurrection, riot, or other civil disorder that has broad regional impacts and is not endemic to the Bank Site and its immediate locale;

ii. A physical natural disaster, including flood, earthquake, or fire, but excluding drought or weather conditions regardless of severity;

iii. Disease that has broad regional impacts and is not endemic to the Bank Site and its immediate locale;

iv. Governmental restriction or the failure by any governmental agency to issue any requisite permit or authority, or any injunction or other enforceable order of any court of competent jurisdiction; or

v. The act of any person or entity other than the Bank Sponsor (or anyone acting on behalf or under the control of the Bank Sponsor) on or directly affecting the Bank Site in violation of any applicable law, statute, regulation, code, order, ordinance, requirement or permit, including without limitation, the release or discharge of any hazardous substance.

Force majeure does not include mere economic hardship or failure to attain Performance Standards.

"Harbor Habitat" is the habitat within the Los Angeles Harbor covered in this BEI. Harbor Habitat comprises three sub-habitats of varying biological function (Standard, Constrained, and Enhanced) as defined in this Section. Periodic, comprehensive biological surveys of the Los Angeles Harbor describe the condition of the Harbor Habitat and are used to determine the extent and location of the sub-habitats (**Exhibit A-2**).

"Interagency Review Team (IRT)" is the interagency group which oversees the establishment, use, operation, and maintenance of the Bank, and for purposes of this BEI comprises USACE, USEPA, NMFS, and USFWS, with USACE serving as the Chair.

"Interim Management Period" is the period from the Bank Establishment Date until all the Performance Standards in the Bank Site-specific Development Plan have been met.

"Interim Management Plan" is the document that describes the general management, monitoring, Adaptive Management, reporting, and other activities to be implemented by the Bank Sponsor during the Interim Management Period.

"Long-term Management Period" is the period beginning upon conclusion of the Interim Management Period and continuing indefinitely, during which a Bank Site is to be managed, monitored, and maintained and reported by the Property Manager pursuant to its Bank Site-specific Long-term Management Plan.

"Long-term Management Plan" means the document attached as **Exhibit C** that identifies measures intended to ensure a Bank Site is managed, monitored, and maintained to conserve and protect its Waters of the United States.

"Los Angeles Harbor" comprises approximately 3,200 acres of tidelands and submerged lands situated below the line of Mean High Tide of San Pedro Bay within the limits and under the jurisdiction of the City.

"Management Commitment" is a long-term stewardship commitment by the Board to provide interim and long-term monitoring, management, and reporting of Bank Sites as required by BEI provisions. The Management Commitment is made in conjunction with the BEI approval.

"Mean High Tide" of the Pacific Ocean within the Harbor is defined as +4.8 feet MLLW.

"Performance Standards" are observable or measurable physical (including hydrological), chemical and/or biological attributes that are used to determine if a Bank Site meets its objectives.

"Property Manager" is the City acting by and through the Board.

"Remedial Action" means any measures needed to remedy any failure to achieve the Performance Standards or any injury or adverse impact to the Bank Sites as preserved, established, restored, or enhanced.

"RIBITS" is the USACE Regulatory In-lieu Fee and Bank Information Tracking System.

"Service Area" means the geographic area(s) within which the Bank is authorized to provide Compensatory Mitigation required by Department of the Army permits.

"Standard Harbor Habitat" is the general condition found in the majority of the Los Angeles Harbor. It comprises all areas not defined as Constrained Harbor Habitat or Enhanced Harbor Habitat as designated in **Exhibit A-2**.

"Transfer" means the use, sale, or conveyance of Credits by the Bank Sponsor.

"Unlawful Act" shall mean the act of any person or entity other than the Bank Sponsor or Property Manager and shall include an event or series of events, such as the intentional release within the Bank Sites or any connected watercourse, of any Hazardous Substance, or the discharge of such a substance in violation of a statute, ordinance, regulation or permit, which event or series of events has a material and detrimental impact on the Bank Sites.

"Waters of the United States" are all waters and wetlands over which USACE and USEPA are granted jurisdiction in the Clean Water Act, 33 U.S.C. § 1251, *et seq.*, or the Rivers and Harbors Act, 33 U.S.C. § 401, *et seq.*

Section III: Stipulations

A. Baseline Condition

The presumptive condition of the Harbor Habitat within the Los Angeles Harbor is described in **Exhibit F**, which summarizes, at the time of BEI execution, the most recent harbor-wide biological survey: 2013-2014 Biological Survey of Long Beach and Los Angeles Harbors. The presumptive condition of the Harbor Habitat may be rebutted by any Party on a sufficient evidentiary showing.

B. Disclaimer

This BEI does not in any manner limit the legal authorities or responsibilities of the Bank Sponsor, Property Manager, IRT, or of any IRT agency.

C. Exhibits

The following Exhibits are attached to and incorporated by this reference into this BEI:

Exhibit A - Bank Location Maps

A-1 Map of Port of Los Angeles

A-2 Map of Harbor Habitats

Exhibit B - Service Area Map and Description

B-1 Map of the Bank's Service Area

B-2 Narrative Description of the Bank's Service Area

Exhibit C - Long-term Management Plan

Exhibit D - Site Protection

D-1 Conservation Land Use Agreement for Bank Sites

D-2 Map of Bank Sites

D-3 Legal Descriptions of Bank Sites

Exhibit E - Bank Credits and Credit Transfers

E-1 Credit Evaluation and Credit Table

E-2 Credit Transfer Ledger Template

Exhibit F - Biological Resources Survey

Exhibit G - Other Documentation, Permits, Amendments, or Revisions

G-1 BEI Modification Process

G-2 Pier 400 Submerged Storage Site

G-3 Additional Mitigation Sites Constructed per the Outer Harbor Agreement

Section IV: Bank Evaluation and Development

A. Bank Site Assessment by the IRT

USACE, in coordination with the IRT, have inspected the Bank Sites and have evaluated the Bank Sponsor's establishment and enhancement of Waters of the United States, and have agreed upon the assignment of Credits set forth in **Exhibit E-1**.

B. Bank Sponsor's Responsibilities for Bank Development

The Bank Sites are already established; thus, the Bank Sponsor holds no Bank Development responsibilities and a Development Plan is not required.

C. Approvals

The Bank Sponsor will obtain all appropriate permits, authorizations, and other approvals necessary to operate and maintain the Bank. This BEI does not constitute or substitute for any such approval.

Section V: Bank Establishment Date

The Bank Establishment Date for Bank Sites and Transfer of Credits shall be deemed to be concurrent with:

i. The BEI being fully executed by the Parties; and

ii. The Conservation Land Use Agreement for the Bank Sites being fully executed by the City and USACE.

Within 60 days of the Bank Establishment Date for the Bank Sites, the Bank Sponsor shall upload the final, signed BEI including all of its Exhibits, to RIBITS and provide an electronic copy to the IRT.

Section VI: Financial Assurances

As allowed in the USACE regulatory program (33 CFR Part 332.3(n)(1)), the District Engineer has determined that financial assurances in the form of securities or

endowments are not necessary for this BEI. The City hereby provides a Management Commitment, implemented through the Harbor Department.

The Harbor Department is a self-supporting proprietary department of the City. The Port is held in trust for the people of the State of California pursuant to a series of tideland grants and administered by the City under the City Charter. As such, the Harbor Department operates semi-independently, administering and controlling its own fiscal activities. The Harbor Department is under the control of a five-member Board appointed by the Mayor, subject to the oversight of the City Council, and administered by an executive director. The Harbor Department currently holds credit ratings of AA, Aa2, and AA from Standard & Poor's, Moody's, and Fitch Ratings, respectively, the highest credit ratings of any non-tax-backed container port in the nation. These high ratings reflect a variety of factors, including its excellent competitive position on the U.S. West Coast, deep-draft waterways, state-of-the-art facilities, large local service area, excellent intermodal transportation links to regional and inland markets, and historically strong fiscal management. The Harbor Department is financed through the Harbor Revenue Fund, which is a separate fund established by the City Charter. All fees, charges, rentals, and revenues from every source collected by the Harbor Department are deposited in the Harbor Revenue Fund. This financial construct allows the Harbor Department to establish and maintain secure, long-term funding mechanisms. Bank Sites operated and maintained under the BEI would be financed by the Harbor Department's capital budget, a Board-approved budget, and backed by the Harbor Revenue Fund.

This BEI is subject to the provisions of the City Charter which, among other things, precludes the City from making any expenditure of funds or incurring any liability, including contractual commitments, in excess of the amount appropriated thereof.

If the Bank Sponsor or Property Manager transfers its rights with regard to the Bank or Bank Sites, financial assurances and site protection deemed appropriate by the IRT will be required of the transferee as prescribed in Section XII.C.

Section VII: Credit Release Schedule

Upon the Bank Establishment Date for the Bank Sites, all Credits set forth in **Exhibit E-1** for the Bank Sites are released for Transfer.

Section VIII: Operation of the Bank

A. Service Area

The Service Area and its basis are described and shown in **Exhibits B-1** and **B-2**.

B. Transfer of Credits

The Transfer of Credits may begin only upon the Bank Establishment Date. The minimum Credit unit that may be Transferred is 0.01 Credit.

In no case shall the number of Credits of any particular type Transferred or obligated exceed the total number of Credits of that type which have been released for Transfer, as evidenced by written approval of USACE.

No use of Credits from the Bank to mitigate or compensate for impacts to Waters of the United States can occur until approved by USACE, in consultation with the other members of the IRT. Approval is determined on a case-by-case basis to ensure the use is appropriate to compensate for the impacts of the specific project to which the Credits are proposed to be applied.

Credits from Banks Sites located in Constrained Harbor Habitat may only be used to compensate for impacts to Constrained Harbor Habitat. Credits from Bank Sites located in Enhanced Harbor Habitat may be used to compensate for impacts to Constrained, Standard, or Enhanced Harbor Habitat.

The Credits do not include special aquatic sites as defined in 40 CFR Part 230 Subpart E; and Credits cannot be used as compensatory mitigation for impacts to special aquatic sites.

Bank Sponsor shall notify the IRT upon any Credit Transfer in accordance with Section IX.B. Upon Transfer of Credits, the Bank Sponsor shall enter the Credit Transfer into RIBITS.

If any Bank Site is damaged after the Bank Establishment Date and such damage measurably impairs Waters of the United States or habitat values on such damaged Bank Site(s), but the IRT does not determine that such damage is a result of Force Majeure or Unlawful Act or Catastrophic Event, then the IRT may, at its discretion, find the Bank Sponsor in default and take action accordingly and/or invoke the Remedial Action provisions of Section VIII.F.

C. Interim and Long-term Management and Monitoring

1. Interim Management and Monitoring

The Bank Sites are established, have met all performance standards, and Credit Release has occurred, thus the Bank Sites are not subject to interim management and monitoring requirements.

2. Long-term Management and Monitoring

From the Bank Establishment Date and continuing indefinitely, the Property Manager shall be obligated to manage, monitor, and maintain the Bank Sites, on a site-specific basis, according to the Long-term Management Plan and the Conservation Land Use Agreement. Bank Sites are subject to the Long-term Management Plan and Conservation Land Use Agreement in **Exhibits C** and **D-1**, respectively.

The Property Manager and the IRT shall meet and confer upon the request of any one of them, to consider revisions to the Long-term Management Plan (**Exhibit C**), which may be necessary or appropriate to better conserve the habitat and conservation values of the Bank Sites.

During the Long-term Management Period, Property Manager shall be responsible for submitting annual reports to each member of the IRT and shall upload all reports into RIBITS, in accordance with Section IX.A.

D. Bank Closure Plan

The Bank is composed of multiple Bank Sites. This Bank Closure Plan provides guidance for closure of the entire Bank if the City elects to request such closure. Because the Bank is composed of multiple Bank Sites, the Bank need not be closed if all Credits from an individual Bank Site are debited and the site transitions to long-term management.

Upon Bank closure, no further Credit Transfer shall occur.

Bank closure shall be deemed to take place upon written concurrence of the IRT, which concurrence shall not be unreasonably withheld and determination of which shall be made promptly, following occurrence of all of the following:

i. All Performance Standards have been substantially met and all Remedial Action required under Section VIII.F has been substantially completed as evidenced by: a) reasonably timely submission of all required annual reports in accordance with Section IX.A; b) the substantial completion of all Remedial Action, if any, in accordance with the applicable Remedial Action plan(s); or c) an on-site inspection by the IRT;

ii. And either:

   a) The last authorized Credit has been Transferred; or

   b) The Bank Sponsor requests Bank closure by written notice to the IRT and IRT provides written approval of the closure, which approval shall not be unreasonably withheld and which determination of which shall be issued within

60 days of such written notice. In the event the IRT fails to provide written notice concerning approval of closure within 60 days of the written request for closure, the request shall be deemed approved.

In the event of Bank closure, the Bank Sponsor agrees to fulfill its pre-existing obligations to perform all monitoring, maintenance, management, and remediation responsibilities that arise directly from Credits that have already been Transferred at the time of Bank closure. Notwithstanding Bank closure, the executed Conservation Land Use Agreement (**Exhibit D**) shall survive Bank closure for any Bank Sites in which Credits have been Transferred.

E. Financial Operations

1. Long-term Management Period

The City, through the Board, will provide per Section VI for necessary work to perform long-term management activities prescribed in **Exhibit C**.

If long-term management activities prescribed in **Exhibit C** are not being completed, remedies presented in Section XII.E can be pursued.

F. Remedial Action Plan

If a) the Bank Sponsor fails to develop a Remedial Action Plan and submit it to the IRT or to implement the Remedial Action identified by the IRT, in accordance with this section; or b) a Remedial Action Plan is agreed upon and implemented, but the conditions do not satisfy the plan's objective and measurable Performance Standards by the dates specified in the plan, then USACE, in coordination with the IRT, may find the Bank Sponsor in default pursuant to Section XII.E. and take action accordingly.

Section IX: Reporting

A. Annual Report

Bank Sponsor shall submit an annual report to the IRT, in signed hard copy and in editable electronic format, on or before August 15 of each year following the anniversary of the Bank Establishment Date for Bank Sites. Each annual report shall cover the period from July 1 of the preceding year (or if earlier, the Bank Establishment Date for the first annual report) through June 30 of the current year (the "Reporting Period"). Each annual report will address all Bank Sites established under this BEI. Prior to Bank closure, the Bank Sponsor shall be responsible for the reporting tasks described below. After Bank closure, the Property Manager shall be responsible for such reporting, annually, per the Long-term Management Plan. The Bank Sites are established, have met all performance standards, and Credit Release has occurred, thus the Bank Sites are not subject to Bank Development or Interim Management reporting requirements. The Bank Sites are subject to routine City monitoring and maintenance

and the requirements of the Long-term Management Plan as described in Section 5 of **Exhibit C**.

The IRT will have 30 days to notify the Bank Sponsor, or Property Manager as appropriate, that the report is incomplete, in which the Bank Sponsor or Property Manager will be given a new deadline for complying with the requirements set forth in this BEI. The deadline is at the discretion of the IRT based on the amount of time it should reasonably take to complete the report. The IRT may temporarily decrease the number of available Credits until the report has been properly submitted.

If the Bank Sponsor or Property Manager has not been notified of incompleteness as of 08:00 on the 45th day past the report due date, the report shall be deemed complete.

The annual report shall address the following:

1. Long-term Management

   The annual report shall contain an itemized account of the management tasks in accordance with the Long-term Management Plan and any Remedial Actions for each Bank Site conducted during the Reporting Period. Each annual report shall also include the following:

   i. The time period covered, i.e., the dates "from" and "to";

   ii. A description of each management task conducted;

   iii. A description of the management and maintenance activities proposed for the next year; and

   iv. A narrative description of the overall condition of the Bank.

2. Transfer of Credits

   The annual report shall include an updated Credit Transfer Ledger (**Exhibit E-2**) showing all Credits transferred since the initial Bank Establishment Date and an accounting of remaining Credits for the entire Bank.

B. Credit Transfer Reporting

Upon the Transfer of each and every Credit, the Bank Sponsor shall enter the Credit Transfer into the RIBITS ledger, and submit an updated Credit Transfer Ledger, in hard copy and in editable electronic format in the form provided at **Exhibit E-2,** to the IRT.

C. Reporting Compliance Measures

If Bank Sponsor fails to submit complete reports on time, the Bank is in default. Requests to extend report deadlines shall be submitted to the IRT no later than 15 days

prior to the original deadline. The IRT will have 5 calendar days to approve or deny the extension request.

1. Reports Not Received

   Annual reports not received by the IRT will result in automatic Credit Transfer suspension effective the 30th day that the report is past due. The suspension will be lifted within 10 days after the IRT receives a complete annual report.

2. Incomplete Reports

   If the Bank Sponsor has been notified by the IRT of an incomplete report, the IRT will then notify the Bank Sponsor of the date by which the report must be made complete.

Section X: Responsibilities of the Bank Sponsor

Without limiting any of its other obligations, including without limitation, under the Conservation Land Use Agreement established for Bank Sites, Bank Sponsor hereby agrees and covenants that:

i. It shall be responsible for all activities and costs associated with the establishment and operation of the Bank, including but not limited to, construction, Remedial Action, documentation, maintenance, management, monitoring, and reporting.

ii. It shall not construct or install any structure or improvement on, or engage in any activity or use of, the Bank Sites, including mineral exploration or development, excavation, draining, dredging, or other alteration of the Bank Sites that is not consistent with and in accordance with this BEI, its Conservation Land Use Agreement, and its other Exhibits.

iii. It shall ensure that the Bank Sites are managed and maintained in accordance with this BEI and its Exhibits.

iv. It shall allow, or otherwise provide for, access to the Bank Sites by the IRT agencies, as described in the Conservation Land Use Agreement.

v. Reasonably foreseeable technical problems, or unanticipated or increased costs or expenses associated with the implementation of actions called for by this BEI, or changed financial or business circumstances in and of themselves shall not serve as the basis for modifications of this BEI or extensions for the performance of the requirements of this BEI.

vi. An extension of one compliance date based upon or related to a single incident shall not extend any subsequent compliance dates.

Section XI: Responsibilities of the IRT

A. IRT Oversight

Subject to the "Availability of Funds" provision of this BEI, the IRT agrees to oversee the performance of this BEI.

B. IRT Review

The IRT will make a good faith effort to provide comments on the annual reports and Remedial Action plans within 60 days from the date of complete submittal. If the IRT is unable to review Remedial Action plans and annual reports within the time specified, this fact will be reflected in any schedule established for performance of Remedial Action and any evaluation of timely performance of Remedial Action or annual reporting by Bank Sponsor.

C. Compliance Inspections

The IRT shall conduct compliance inspections for any purpose(s) it determines as necessary to assess compliance with this BEI.

Section XII: Other Provisions

A. Site Damage

The City, as Bank Sponsor and Property Manager, is not responsible for damage or non-compliance caused by an event of Force Majeure or Unlawful Act or Catastrophic Event that commences after the Bank Establishment Date. In order for this exception to apply, the City shall bear the burden of demonstrating all of the following:

i. That the damage or non-compliance was caused by circumstances beyond the control of the Bank Sponsor, Property Manager, and any person or entity under the direction or control of the Bank Sponsor or Property Manager, including its employees, agents, contractors and consultants;

ii. That neither the Bank Sponsor, Property Manager, nor any person or entity under the direction or control of the Bank Sponsor or Property Manager, including its employees, agents, contractors and consultants, could have reasonably foreseen and prevented such damage or non-compliance; and

iii. The damage or non-compliance was a direct result of such Force Majeure or Unlawful Act or Catastrophic Event.

The City shall notify the IRT within 24 hours of occurrence or discovery of an event of Force Majeure or Unlawful Act or Catastrophic Event, and as promptly thereafter as reasonably possible, the Parties shall meet to discuss the course of action in response to such occurrence. In the meantime, the Bank Sponsor or Property Manager shall

continue to manage and maintain the Bank Site according to this BEI to the fullest extent practicable.

The City is not entitled to terminate this BEI under Section XII.D as a result of Force Majeure or Unlawful Act or Catastrophic Event.

If after the effective date of this agreement, any Bank Site is substantially or totally destroyed by a Force Majeure or Unlawful Act or Catastrophic Event, which renders said Bank Site(s) substantially or totally unsuitable for habitat purposes, such destruction shall not automatically terminate this agreement, and the City may elect to cease long-term management activities by giving written notice to the IRT within 60 days of the date of the Force Majeure or Unlawful Act or Catastrophic Event. If the City elects to remove any Bank Site(s) as provided above, the City shall forfeit any credits arising from such Bank Site(s) that have not been Transferred. If the City fails to exercise its right to remove such substantially or totally destroyed Bank Site(s) from the Mitigation Bank established by this agreement, this agreement shall continue in full force and effect with respect to such substantially or totally destroyed Bank Site(s).

B. Dispute Resolution

The Parties agree to work together in good faith to resolve disputes concerning this BEI. Any dispute arising under this BEI will not give rise to any claim by the Bank Sponsor for monetary damages. Unless a Party has initiated legal action in connection with the particular dispute, any Party may elect (the "Electing Party") to employ an informal dispute resolution process whereby:

i. The Electing Party shall notify all other Parties to this BEI of the dispute through a Dispute Notice. The Dispute Notice shall identify the Parties against which the Electing Party is commencing the informal dispute resolution process ("Implicated Parties"), the position of the Electing Party (including, if applicable, the basis for contending that a violation has occurred), and the resolution the Electing Party proposes.

ii. Each Implicated Party shall have 45 calendar days after receipt of a Dispute Notice (or such other time as the Parties may mutually agree) to respond to the Electing Party. During this time, any Party to this BEI that received the Dispute Notice may seek clarification of the Dispute Notice.

iii. Within 45 calendar days after each Implicated Party's response was provided or due, whichever is later, the Electing Party and the Implicated Parties shall confer and negotiate in good faith toward a mutually satisfactory resolution, or shall establish a specific process and timetable to seek such resolution.

iv. The dispute resolution process may be terminated by the Electing Party or Implicated Party upon written notice to all other Parties to this BEI.

v. Objections to approval of this BEI, or a proposed amendment to it, shall be resolved in accordance with 33 CFR Part 332.8(e).

C. Conveyance of Bank Sites

All transfers of any interest in the Bank Sites are subject to the applicable provisions of the Conservation Land Use Agreement.

The Property Manager shall have the right in accordance with the Tidelands Grant and the City Charter to sell, assign, transfer, or convey (each a transfer) its interest in the Bank Sites at any time, provided that any such transfer on or after the execution date of this BEI shall include the assignment or termination of this BEI and the Conservation Land Use Agreement entered into pursuant to this BEI, and, shall be subject to prior written consent of the IRT, which consent is subject to Section XII.H below. From and after the date of any transfer by Property Manager of its interest in the Bank Sites, the transferor shall have no further obligations hereunder and all references to Property Manager in this BEI shall thereafter refer to such transferee, except that the transferor's liability for acts, omissions, or breaches occurring prior to the transfer shall survive the transfer. Any transfer of the Property Manager's interest in the Bank Sites made without prior written notice to the IRT constitutes default and, the IRT may take action accordingly.

The Bank Sponsor may sell or convey its interest in the Bank, provided that no uncured default exists, Bank Sponsor is in full compliance with all requirements of this BEI, the replacement Bank Sponsor provides financial assurances, and subject to prior written concurrence of the IRT. In addition, prior to sale or conveyance, the Bank Sponsor shall provide to each member of the IRT a written agreement, acceptable to the IRT in form and substance, signed by the replacement Bank Sponsor in which the Bank Sponsor assigns to the replacement Bank Sponsor, and the replacement Bank Sponsor assumes and agrees to perform, all of the responsibilities and obligations of the Bank Sponsor under the BEI. Any such sale or conveyance made without the prior written concurrence of the IRT constitutes default and the IRT may take action accordingly.

If the Property Manager or Bank Sponsor intends to transfer any interest in the Bank or Bank Sites, the transferee will be required to provide site protection for the Bank Sites and financial assurances satisfactory to the IRT at the time when such transfer is made.

D. Modification and Termination of the BEI

1. Amendment and Modification

This BEI, including its Exhibits, may be amended or modified only with the written approval of the Parties. Amendments and modifications of this BEI are governed by the procedure outlined in **Exhibit G-1**. All amendments and

modifications shall be fully set forth in a separate document signed by all Parties that shall be appended to this BEI.

2. Termination

   i. The Bank Sponsor may terminate this BEI at any time prior to any Credit Transfer. In the event this BEI is terminated by the Bank Sponsor or the Bank is closed, after any Credit Transfer, but prior to the Transfer of all authorized Credits, any remaining Credits under this BEI shall be extinguished and will no longer be available for Transfer. In the event this BEI is terminated by the Bank Sponsor or the Bank is closed after the Transfer of all authorized Credits, the Bank Sponsor shall provide the IRT will a final report and accounting of all Sites and Credits.

   ii. The IRT may terminate this BEI if the Bank Sponsor sells or conveys the Bank or Bank Sites without prior written concurrence of the IRT, as required by Section XII.C.

   iii. USEPA, USFWS, and NMFS may terminate its participation upon 60 calendar days' written notice to all other Parties. This BEI shall continue in full force and effect as to the remaining Parties.

   iv. USACE may terminate its participation in this BEI upon 60 calendar days' written notice to all other Parties, on the condition that each of the following has occurred:

      a) Bank Sponsor or Property Manager has defaulted on one or more covenants, terms or conditions of this BEI;

      b) Bank Sponsor and Property Manager have received notice of such default from the USACE in accordance with paragraph XII.E., if applicable, and XII.K; and

      c) Bank Sponsor has failed to cure its default to the satisfaction of the USACE.

   v. If any of the Parties so requests, the member(s) of the IRT terminating its participation in the BEI agree to meet with the other Parties to discuss the reason(s) for such termination. Notice of a request for such meeting shall be made by the requesting Parties not later than 15 calendar days from receipt of the notice of termination.

   vi. Termination by any Parties to this BEI shall not terminate this BEI or affect the relationship between the remaining Parties, toward each other, under this BEI. Remaining Credits authorized under the authority of the terminating agency will no longer be available for Transfer.

   vii. In the event such termination is commenced, the Bank Sponsor agrees to fulfill its pre-existing obligations to perform all establishment, monitoring, maintenance, management, and remediation responsibilities that arise directly

from Credits that have already been Transferred at the time of termination. The executed Conservation Land Use Agreement shall survive termination of the BEI for any Bank Sites in which Credits have been Transferred, subject to the termination provisions of those agreements.

E. Default

The Bank Sponsor and/or Property Manager shall be in default if the Bank Sponsor and/or Property Manager fails to observe or perform any obligations or responsibilities required of it by this BEI. In the event of default, the IRT shall issue a notice of default to the Bank Sponsor and/or Property Manager, which includes direction and specified time period to cure the default. If the Bank Sponsor and/or Property Manager fails to remedy the default within the allotted time, the IRT will take appropriate action, which includes, but is not limited to, suspending Credit Transfers, reducing available Credits, using financial assurances, and terminating the BEI. This Section shall not be construed to modify or limit any specific right, remedy, or procedure in any Section of this BEI or any remedy available under applicable state and/or federal law.

F. Controlling Language

The Parties intend the provisions of this BEI and each of the documents incorporated by reference in it to be consistent with each other, and for each document to be binding in accordance with its terms. To the fullest extent possible, these documents shall be interpreted in a manner that avoids or limits any conflict between or among them. However, if and to the extent that specific language in this BEI conflicts with specific language in any document that is incorporated into this BEI by reference, the specific language within the BEI shall be controlling. The captions and headings of this BEI are for convenient reference only, and shall not define or limit any of its terms or provisions.

G. Entire Agreement

This BEI, and all exhibits, appendices, schedules, and agreements referred to in this BEI, constitute the final, complete, and exclusive statement of the terms of the agreement between and among the Parties pertaining to the Bank, and supersede all prior and contemporaneous discussions, negotiations, understandings, or agreements of the Parties. No other agreement, statement, or promise made by the Parties, or to any employee, officer, or agent of the Parties, which is not contained in this BEI or incorporated herein by reference, shall be binding or valid, with respect to the subject matter hereof. No alteration or variation of this instrument shall be valid or binding unless contained in a written amendment in accordance with Section XII.D.1. Each of the Parties acknowledges that no representation, inducement, promise or agreement, oral or otherwise, has been made by any of the other Parties or anyone acting on behalf of any of the Parties unless the same has been embodied herein.

H. Reasonableness and Good Faith

Except as specifically limited elsewhere in this BEI, whenever this BEI requires a Party to give its consent or approval to any action on the part of the other, such consent or approval shall not be unreasonably withheld or delayed. If the Party disagrees with any determination covered by this provision and reasonably requests the reasons for that determination, the determining Party shall furnish its reasons in writing and in reasonable detail within 45 days following the request.

I. Successors and Assigns

This BEI and each of its covenants and conditions shall be binding on, and shall inure to, the benefit of the Parties and their respective successors and assigns subject to the limitations on transfer set forth in this BEI.

This BEI supersedes and replaces *Harbor Department Agreement No. 1327, Memorandum of Understanding Among the Harbor Department of the City of Los Angeles, the California Department of Fish and Game, the National Marine Fisheries Service, and the Fish and Wildlife Service to Establish a Procedure for Advance Compensation of Marine Habitat Losses Incurred by Selected Port Development Projects Within the Harbor District of the City of Los Angeles* (known and referred to as the Inner Harbor Agreement) and *Harbor Department Agreement No. 1972, the Memorandum of Agreement Among the City of Los Angeles, the California Department of Fish and Game, the National Marine Fisheries Service, and the Fish and Wildlife Service to Establish a Procedure For On-site Compensation of Marine Habitat Losses Incurred by Port Development Landfills within the Harbor District of the City of Los Angeles* (known and referred to as the Outer Harbor Agreement), provided the parties to Agreement Nos. 1327 and 1972 consent to such supersedence and replacement. All remaining credits existing under such agreements are hereby incorporated into this BEI.

J. Partial Invalidity

If a court of competent jurisdiction holds any term or provision of this BEI to be invalid or unenforceable, in whole or in part, for any reason, the validity and enforceability of the remaining terms and provisions, or portions of them, shall not be affected unless an essential purpose of this BEI would be defeated by loss of the invalid or unenforceable provision or its invalidity or unenforceability as to any Party.

K. Notices

Any notice, demand, approval, request, or other communication permitted or required by this BEI shall be in writing and deemed given when delivered personally, sent by receipt-confirmed facsimile, or sent by recognized overnight delivery service, addressed as set forth below, or 5 days after deposit in the U.S. mail, postage prepaid, and addressed as set forth below.

Notice by any Party to any other Party shall be given to all Parties. Such notice shall not be effective until it is deemed to have been received by all Parties.

Addresses for purposes of giving notice are set forth below. Any Party may change its notice address by giving notice of change of address to the other Parties in the manner specified in this Section XII.K.

Los Angeles Harbor Department
425 South Palos Verdes Street
San Pedro, CA 90731
Attn: General Counsel; Director of Environmental Management
Telephone: (310) 732-3750; (310) 732-3675
Fax: (310) 831-9778

U.S. Army Corps of Engineers, Los Angeles District
915 Wilshire Boulevard
Los Angeles, CA 90017
Attn: Chief, North Coast Branch, Regulatory Division
Telephone: (805) 585-2141
Fax: (805) 585-2154

U.S. Fish and Wildlife Service
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, CA 92008
Attn: Field Supervisor
Telephone: (760) 431-9440

U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, CA 94105
Attn: Chief, Wetlands Regulatory Office
Telephone: (415) 947-3483

National Marine Fisheries Service
Southern California Long Beach Area Office
501 West Ocean Boulevard, Suite 4200
Long Beach, CA 90802
Attn: Area Office Supervisor, West Coast Region
Telephone: (562) 980-4037

L. Counterparts

This BEI may be executed in multiple counterparts, each of which shall be deemed an original and all of which together shall constitute a single executed agreement.

M. No Third-party Beneficiaries

This BEI shall not create any third-party beneficiary hereto, nor shall it authorize anyone not a Party hereto to maintain any action, suit, or other proceeding, including without limitation, for personal injuries, property damage or enforcement pursuant to the provisions of this BEI. The duties, obligations, and responsibilities of the Parties to this BEI with respect to third parties shall remain as otherwise provided by law in the event this BEI had never been executed.

N. Availability of Funds

Implementation of this BEI by the IRT is subject to the requirements of the Anti-Deficiency Act, 31 U.S.C. § 1341, and the availability of appropriated funds. Nothing in this BEI may be construed to require the obligation, appropriation, or expenditure of any money from the U.S. Treasury. No agency of the IRT is required under this BEI to expend any funds unless and until an authorized official affirmatively acts to commit to such expenditures as evidenced in writing. Implementation of this BEI by the City is subject to the laws of the State of California, the City Charter and the availability of appropriated funds. Nothing in this BEI may be construed to require the obligation, appropriation, or expenditure of any money from the City of Los Angeles General Fund or Harbor Revenue Fund.

O. No Partnerships

This BEI shall not make or be deemed to make any Party to this BEI an agent for or the partner or joint venture of any other Party.

P. Applicable Laws

The applicable statutes, regulations, policies, directives, and procedures of the United States and the State of California will govern this BEI and all documents and actions pursuant to it.

Q. No Contract

USACE approval of this BEI constitutes the regulatory approval required for the Bank to be used to provide compensatory mitigation for Department of Army permits pursuant to 33 CFR Part 332.8(a)(1). This BEI is not a contract between the Bank Sponsor or Property Manager and USACE or any other agency of the federal government. Any dispute arising under this BEI will not give rise to any claim by the Parties for monetary damages. This provision is controlling notwithstanding any other provision or statement in the BEI to the contrary.

Section XIII: Effective Date and Duration

This BEI shall be deemed effective on the date of the last signature by the Parties. This agreement will remain in force until whichever of these events occurs first: 1) the BEI is terminated pursuant to Section XII.D.2 or 2) the Bank is closed pursuant to Section VIII.D.

IN WITNESS WHEREOF, the Parties have executed this BEI as follows:

Bank Sponsor and Property Manager

_____ _____

Gene Seroka
Executive Director
Harbor Department
City of Los Angeles

Date

Attest: _____
Amber M. Klesges
Board Secretary

_____ _____

Kirk E. Gibbs
Colonel, U.S. Army
Commander and District Engineer

Date

_____ _____

G. Mendel Stewart
Field Supervisor
Carlsbad Fish and Wildlife Office
U.S. Fish and Wildlife Service

Date

_____ _____

Sam Ziegler
Chief, Wetlands Section
Region IX
U.S. Environmental Protection Agency

Date

IN WITNESS WHEREOF, the Parties have executed this BEI as follows:

Bank Sponsor and Property Manager

_____ _____

Gene Seroka
Executive Director
Harbor Department
City of Los Angeles

Date

Attest: _____
Amber M. Klesges
Board Secretary

_____ _____

Kirk E. Gibbs
Colonel, U.S. Army
Commander and District Engineer

Date

G. Mendel Stewart 12-8-17

G. Mendel Stewart
Field Supervisor
Carlsbad Fish and Wildlife Office
U.S. Fish and Wildlife Service

Date

_____ _____

Sam Ziegler
Chief, Wetlands Section
Region IX
U.S. Environmental Protection Agency

Date

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Bank Sponsor and Property Manager

_____ _____

Gene Seroka
Executive Director
Harbor Department
City of Los Angeles

Date

Attest: _____
Amber M. Klesges
Board Secretary

_____ _____

Kirk E. Gibbs
Colonel, U.S. Army
Commander and District Engineer

Date

_____ _____

G. Mendel Stewart
Field Supervisor
Carlsbad Fish and Wildlife Office
U.S. Fish and Wildlife Service

Date

Samuel A. Ziegler _____ 12/8/17

Sam Ziegler
Chief, Wetlands Section
Region IX
U.S. Environmental Protection Agency

Date

Chris Yates
Assistant Regional Administrator
West Coast Region
National Marine Fisheries Service

Dec 11 2017
Date

APPROVED AS TO FORM AND LEGALITY

Jan. 3, 2018
Michael N. Feuer, City Attorney
Janna B. Sidley, General Counsel

By _____
Christopher B. Bobo, Assistant

EXHIBIT A
BANK LOCATION MAPS

A-1: Map of Port of Los Angeles

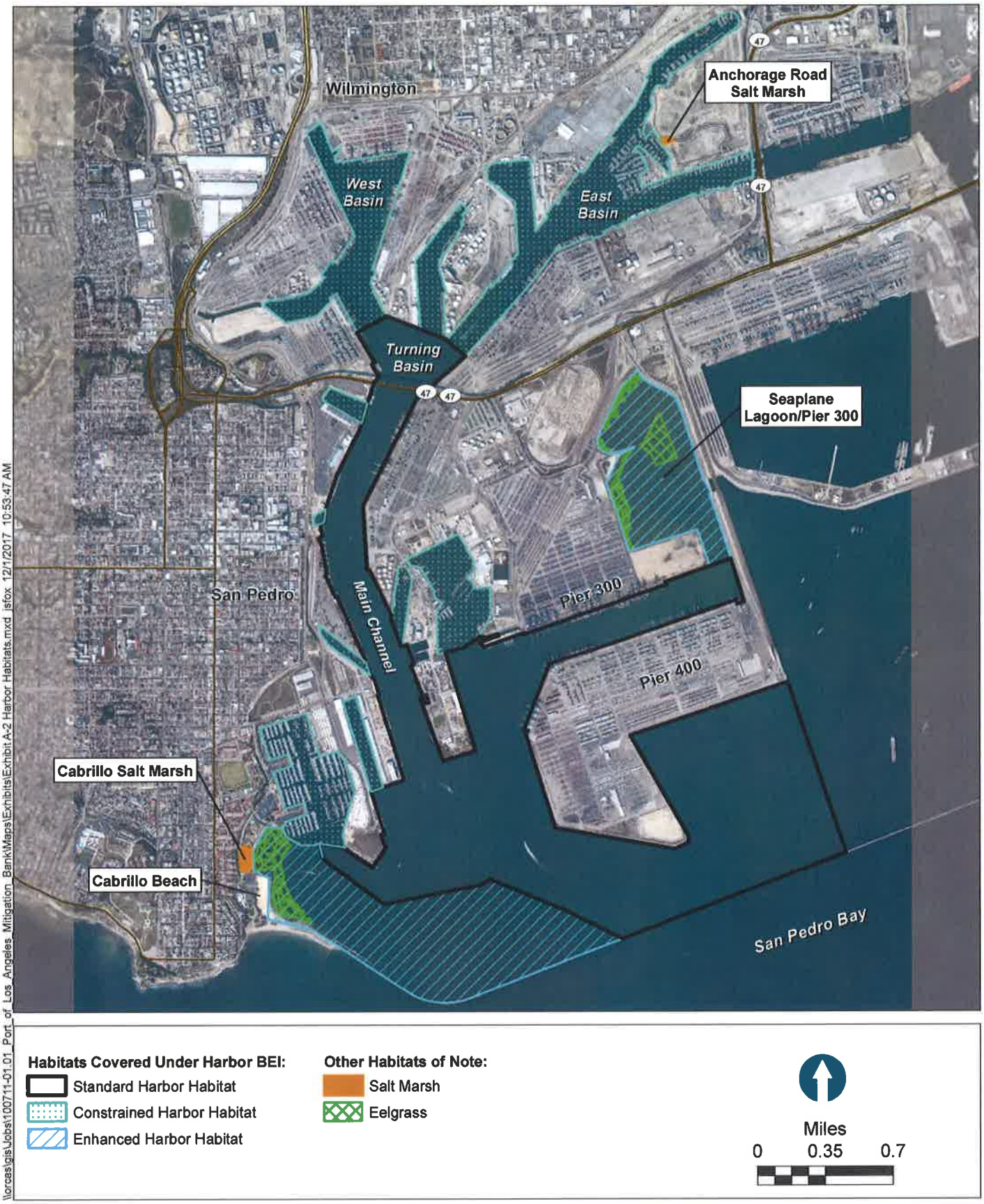
A-2: Map of Harbor Habitats

Q:\Jobs\100711-01.01_Port_of_Los_Angeles_Mitigation_Bank\Maps\Exhibits\Exhibit A-1 General Area Map.mxd nkochie 6/27/2016 11:41:18 AM

Aerial Imagery: Los Angeles Harbor Department, 2013

ANCHOR QEA

Exhibit A-1
Port of Los Angeles General Area
Port of Los Angeles Harbor Habitat Mitigation Bank



\\orcas\gis\Jobs\100711-01.01_Port_of_Los_Angeles_Mitigation_Bank\Maps\Exhibits\Exhibit A-2 Harbor Habitats.mxd jsfox 12/1/2017 10:53:47 AM

Aerial Imagery: Los Angeles Harbor Department, 2013

ANCHOR QEA

Exhibit A-2
Harbor Habitats
Port of Los Angeles Harbor Habitat Mitigation Bank

EXHIBIT B
SERVICE AREA MAP AND DESCRIPTION

B-1: Map of the Bank's Service Area

B-2: Narrative Description of the Bank's Service Area

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Aerial Imagery: Los Angeles Harbor Department, 2013

ANCHOR QEA

Exhibit B-1
Service Area
Port of Los Angeles Harbor Habitat Mitigation Bank

EXHIBIT B-2: NARRATIVE DESCRIPTION OF THE BANK'S SERVICE AREA

The term "service area" is defined at 33 Code of Federal Regulations (CFR) Part 332.3 as "the geographic area within which impacts can be mitigated at a specific mitigation bank or in-lieu fee program." Typically, a mitigation bank site is a single location that provides compensatory mitigation for a broader geographic area within which impacts from permitted project activities can occur. The Port of Los Angeles Harbor Habitat Mitigation Bank is a single-user bank in which all of the credits will be used to mitigate for permitted impacts within the Port of Los Angeles. Thus, for the purposes of this BEI, the Service Area is the Port of Los Angeles as shown in Exhibit B-1.

EXHIBIT C
LONG-TERM MANAGEMENT PLAN

1 PURPOSE OF LONG-TERM MANAGEMENT PLAN

The purpose of this Long-term Management Plan is to describe the management of the Bank Sites. This Long-term Management Plan describes actions that would be taken to manage, maintain, and report on the status of Bank Sites established pursuant to the BEI during the Long-term Management Period. Capitalized terms used in this Long-term Management Plan have the same meaning as defined in Section II of the BEI.

2 RESPONSIBLE PARTIES

The City as Bank Sponsor and Property Manager, shall implement the long-term management tasks of this Long-term Management Plan, managing and monitoring the Bank to preserve its habitat and conservation values in accordance with the Bank's BEI and the Conservation Land Use Agreement. Long-term management tasks shall be provided as described in the BEI. The City shall be responsible for providing an annual report to the IRT detailing the time period covered, an itemized account of the long-term management tasks and total amount expended. Any subsequent dredging, overwater coverage, or other alteration of Bank Sites by the City or its representatives must be consistent with the Conservation Land Use Agreement, approved by the IRT and the necessary permits, such as a Department of the Army permit, must be obtained if required.

3 PROPERTY DESCRIPTION

3.1 Setting and Location

The Port of Los Angeles Harbor Habitat Mitigation Bank is located within the Los Angeles Harbor, in San Pedro Bay, Los Angeles County, the State of California, as depicted in Exhibit A-1. Bank Sites to be conserved and managed are depicted in Exhibit D-2. Legal descriptions are provided in Exhibit D-3 of the BEI.

3.2 History and Land Use

Exhibit F of the BEI provides a summary of Land Use History within the Los Angeles Harbor.

3.3 Hydrology

The Los Angeles Harbor is part of the larger San Pedro Bay which is protected from incoming waves and currents by the Federal breakwater. The breakwater consists of three segments, which are separated by San Pedro Bay's entrances (Angel's Gate and Queen's Gate) through which much of the water exchange between the Harbor and the rest of San Pedro Bay occurs.

Three major tributaries, the Dominguez Channel, Los Angeles River, and San Gabriel River, discharge into San Pedro Bay. During the dry season, the freshwater flows from these tributaries have little impact on Harbor circulation, but during rain events, the increased flow can substantially change circulation patterns. The freshwater from the tributaries, being less dense than sea/salt water, can spread into San Pedro Bay as freshwater plumes, carrying suspended sediments and contaminants into the Harbor.

3.4 Existing Easements

No existing easements occur within aquatic habitats of the Los Angeles Harbor. The Port Tidelands Trust (Los Angeles City Charter, Article VI, Section 601; the California Tidelands Trust Act of 1911) and the California Coastal Act (PRC Division 20 Section 30700, et seq.) grants the City responsibility for the possession, management, and control of all navigable waters and all tidelands and submerged lands, whether filled or unfilled, situated below the line of mean high tide northerly and easterly of the United States government breakwater at the Los Angeles Harbor and within the limits of the City of Los Angeles.

3.5 Adjacent Land Uses

Land uses surrounding the Los Angeles Harbor are primarily industrial, residential, and open space. The communities of San Pedro and Wilmington, both parts of the incorporated City of Los Angeles, are adjacent to the west side and north side of the Los Angeles Harbor, respectively. The Port of Long Beach (POLB) is to the east and San Pedro Bay is to the south. Ken Malloy Harbor Regional Park, managed by the City, is located to the north of the Los Angeles Harbor. The zoning authorities for the Port and adjacent areas are the cities of Los Angeles and Long Beach.

4 BIOLOGICAL RESOURCES SURVEY OF THE BANK

The City's Harbor Department, in cooperation with the POLB, conducts periodic biological surveys of the Los Angeles and Long Beach Harbors, which include Harbor Habitat biological baseline reports. Surveys are conducted approximately every 5 years and entail collecting a wide variety of data several times during each sampling year. These surveys produce quantitative biological, physical, and chemical data from multiple sampling locations within the Harbor. The locations of the sampling stations vary from survey to survey, but some of the stations are typically within or in the vicinity of the Bank Sites and thus provide data representative of the sites. Data collection includes: water quality, sediment grain size, adult and juvenile fish, larval fish (ichthyoplankton), benthic invertebrates, attached organisms on breakwaters and other hard substrates such as rock riprap, kelp and macroalgae, eelgrass, birds, marine mammals, and non-indigenous species. The data collected during these periodic biological baseline studies are used to characterize biological resources throughout the ports of Los Angeles and Long Beach, and help describe marine habitat quality within the Harbor. See Exhibit F of the BEI for a detailed description of the biological resources of the Los Angeles Harbor.

5 LONG-TERM MANAGEMENT AND MONITORING

The overall goal of long-term management is to foster the long-term viability of the Bank Sites.

Long term management of the Bank Sites will occur in conjunction with routine maintenance and monitoring performed by the City as outlined in this paragraph and will include additional site-specific provisions as identified in Sections 5.1. and 5.2. As discussed above, the City performs periodic biological baseline studies to monitor the health of Harbor waters. These studies both serve as long-term records and identify areas for improvements. Building on these studies, in 2009, the Ports of Los Angeles and Long Beach developed and approved the Water Resources Action Plan (WRAP), which addresses contamination from landside runoff, direct discharges from vessels and sediment (fill), and regional influences as a result of river, stream, and storm drain inputs from outside the Ports, as well as ocean water moving in and out of the Ports (Port and POLB 2009). The WRAP establishes a comprehensive strategy to implement control measures including specific water resource

related projects and initiatives undertaken by the Ports and requirements that the Ports are able to impose on users of harbor facilities through leases and tariffs. The WRAP also centralizes compliance with all related rules and regulations that prohibit discharges, such as the Vessel General Permit program that limits ballast water exchanges within the Port and ensure timely responses in case of spills, such as the California Office of Spill Prevention and Response requirement for all marine facilities and tank vessels carrying petroleum product as cargo, as well as all non-tank vessels over 300 gross tons to have approved oil spill contingency plans.

The following discussion presents specific maintenance and monitoring strategies for the Bank Sites in addition to the routine activities performed Port-wide. Subject to Section XII.A of this BEI, the City will notify the IRT if the Bank Sites are affected by an event of Force Majeure, a Catastrophic Event, or an Unlawful Act.

5.1 Bank Sites in Constrained Harbor Habitat

The Cabrillo Marina Phase II, Downtown Harbor Cut, and West Basin Cut Bank Sites are Constrained Harbor Habitat. These sites were created through harbor cuts, converting upland to Waters of the United States, and the created aquatic habitat is available for colonization and use by marine organisms. Because harbor cuts are subject to all port-wide water quality provisions as discussed above, no additional site-specific long-term management or monitoring needs have been identified for these Bank Sites. However, as indicated in Section 6 of Exhibit D-1, maintenance dredging may occur to ensure design depths are maintained. In addition, periodic harbor-wide biological surveys provide data representative of these Bank Sites.

5.2 Bank Sites in Enhanced Harbor Habitat

The Cabrillo Shallow Water Habitat Phase 1, 2, 3 and 4 Bank Sites are Enhanced Harbor Habitat. The following long-term management and monitoring activities will be performed by the Property Manager for these Bank Sites:

- Biological monitoring of the newly constructed Cabrillo Shallow Water Habitat Phase 4 per the approved Phase 4 Cabrillo Shallow Water Habitat Biological Monitoring Program (Merkel & Associates 2015).

- Ongoing biological monitoring of Phases 3 and 4 of the Cabrillo Shallow Water Habitat as part of the periodic port-wide biological baseline studies (e.g., 2013-2014 Biological Surveys of Long Beach and Los Angeles Harbors).
- Inspections of the Cabrillo Shallow Water Habitat at least every 5 years and repairs as necessary to ensure the design depth (equal to or shallower than -20 feet MLLW) is maintained over time.
    - Inspections will be completed in conjunction with the biological baseline surveys and reports.
    - Repairs will consist of placing additional fill to maintain design depth equal to or shallower than -20 feet MLLW and repairing existing rock dikes if necessary to maintain design configurations.

6 REPORTING

The objective of the annual report is to provide information on the long-term management of the Bank Sites to the IRT. The City will submit an annual report to the IRT, in editable electronic format, on or before August 15 of each year following the Bank Establishment Date. Each annual report shall cover the period from July 1 of the preceding year pursuant to Section IX of the BEI. In addition to annual reports, the City will provide updates to the IRT on the status of the biological baseline studies and the results of the studies, which provide the most comprehensive and quantitative assessment of the biological resources in the Harbor.

7 AMENDMENTS AND NOTICES

7.1 Amendments

The Bank Sponsor and the IRT may meet and confer from time to time, upon the request of any one of them, to revise the Long-term Management Plan to better preserve the habitat function and conservation values of the Bank. Any proposed changes to the Long-term Management Plan shall be discussed with the IRT and the Bank Sponsor and Property Manager. Any proposed changes will be designed with input from all parties. Amendments to the Long-term Management Plan shall be approved by the IRT in writing.

7.2 Notices

Any notices regarding this Long-term Management Plan shall be directed as follows:

Los Angeles Harbor Department
425 South Palos Verdes Street
San Pedro, California 90731
Attn: General Counsel; Director of Environmental Management
Telephone: (310) 732-3763; (310) 732-3675
Fax: (310) 831-9778

U.S. Army Corps of Engineers, Los Angeles District
915 Wilshire Boulevard
Los Angeles, California 90017
Attn: Chief, North Coast Branch, Regulatory Division
Telephone: (805) 585-2141
Fax: (805) 585-2154

U.S. Fish and Wildlife Service
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008
Attn: Field Supervisor
Telephone: (760) 431-9440

National Marine Fisheries Service
Southern California Long Beach Area Office
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802
Attn: Area Office Supervisor
Telephone: (562) 980-4037

U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, California 94105
Attn: Chief, Wetlands Regulatory Office
Telephone: (415) 947-3483

8 REFERENCES

Merkel & Associates, Inc., 2015. *Phase 4 Cabrillo Shallow Water Habitat Biological Monitoring Program.* August 2015.

Port and POLB (Port of Los Angeles and Port of Long Beach), 2009. *Water Resources Action Plan.* Final Report. August 2009. Available from: https://www.portoflosangeles.org/pdf/Biobaseline2014.pdf.

EXHIBIT D
SITE PROTECTION

D-1: Conservation Land Use Agreement for Bank Sites

D-2: Map of Bank Sites

D-3: Legal Descriptions of Bank Sites

CONSERVATION LAND USE AGREEMENT

between the

CITY OF LOS ANGELES

and the

UNITED STATES ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT

This CONSERVATION LAND USE AGREEMENT (Agreement) is entered into as of this ____ day of _____, 20__, by the City of Los Angeles (City), acting through the its Board of Harbor Commissioners (Board), and the United States Army Corps of Engineers (USACE), collectively, referred to herein as the "Parties."

RECITALS

Whereas, the City holds in trust certain real property containing approximately 7,500 acres, located in the County of Los Angeles, State of California (Port of Los Angeles or "Port"). The Port is generally shown on **Exhibit A-1**. The City intends to conserve and protect approximately 374 acres of the Port (the "Bank Sites"). The Bank Sites are depicted on **Exhibit D-2** and legally described on **Exhibit D-3** attached hereto and incorporated by this reference.

Whereas, the Bank Sites consist of seven sites previously constructed in the Los Angeles Harbor as provided in the *Memorandum of Understanding Among the Harbor Department of the City of Los Angeles, the California Department of Fish and Game, the National Marine Fisheries Service, and the Fish and Wildlife Service to Establish a Procedure for Advance Compensation of Marine Habitat Losses Incurred by Selected Port Development Projects Within the Harbor District of the City of Los Angeles* (known and referred to as the "Inner Harbor Agreement") executed in 1984 and the *Memorandum of Agreement Among the City of Los Angeles, the California Department of Fish and Game, the National Marine Fisheries Service, and the Fish and Wildlife Service to Establish a Procedure For On-site Compensation of Marine Habitat Losses Incurred by Port Development Landfills within the Harbor District of the City of Los Angeles* (known and referred to as the "Outer Harbor Agreement") executed in 1997.

Whereas, the Bank Sites consist of submerged lands of Constrained and Enhanced Harbor Habitats, as defined herein.

Whereas, this Agreement is granted pursuant to the Port of Los Angeles Harbor Habitat Mitigation Bank (Bank) Bank Enabling Instrument (BEI) by and between City, USACE, Region IX of the U.S. Environmental Protection Agency (USEPA), the U.S.

Fish and Wildlife Service (USFWS), and the National Marine Fisheries Service dated _____, and the Long-term Management Plan. Both this Agreement and the Long-term Management Plan are exhibits of the BEI.

Whereas, consistent with the terms and conditions of this Agreement and the BEI, the Bank Sites are and will remain in a Natural Condition as defined herein. The Bank Sites remaining in their Natural Condition is of importance to citizens of the State of California, County of Los Angeles, and the United States.

NOW THEREFORE, the Parties agree as follows:

AGREEMENT

1. Authority

a. USACE enters into this Agreement pursuant to Section 404 of the Clean Water Act, 33 U.S.C. § 1344, and Section 10 of the Rivers and Harbors Act, 33 U.S.C. § 403, and its implementing regulations.

b. The City enters this Agreement pursuant to the Tidelands Trust (Los Angeles City Charter, Article VI, Section 601; California Tidelands Trust Act, Chapter 656, Statutes 1911, as amended) and the California Coastal Act (CCA; Public Resources Code [PRC] Division 20 Section 30700 et seq.).

2. Purpose

a. The purpose of this Agreement is two-fold: i) to ensure the Bank Sites will be retained in a Natural Condition (as defined in Section 3.a.); and ii) to restrict any use of the Bank Sites that will physically alter the Natural Condition of the Bank Sites (the "Purpose"). The Parties intend that this Agreement will confine the use of the Bank Sites to such activities that are consistent with this Purpose, including without limitation, those involving the preservation, restoration, and enhancement of native species and their habitats.

3. Natural Condition

a. The term "Natural Condition," as referenced in the preceding paragraph and other portions of this Agreement, shall mean the condition of the Bank Sites as they exist at the time this Agreement is executed as well as future enhancements or changes to the Bank Sites that occur directly as a result of the following activities:

i. Long-term maintenance obligations (Long-term Maintenance) that are performed to maintain ecological function of the Bank Sites as described in Section 7;

ii. Activities described in Sections 3 and 6;

iii. Additional compensatory mitigation measures authorized on the Bank Sites by future Department of the Army permits issued to the City;

iv. Additional habitat establishment, enhancement, and/or restoration activities undertaken on the Bank Sites by the City and approved by USACE; or

v. Natural changes to the Bank Sites over time and changes occurring due to acts beyond the City's control as described in Section 8.d.

b. The Parties agree that the only structures or other man-made improvements known to exist on the Bank Sites at the time this Agreement is executed consist of wharves, riprap, pilings, piers, promenades, floating docks, and aids to navigation. In addition, the Bank Sites support normal vessel operations to support Tidelands Trust uses. The present Natural Condition is evidenced in part by the depiction of the Bank Sites attached as **Exhibits D-2** and **D-3** of the BEI consisting of: i) a color aerial photograph of the Bank Sites at an appropriate scale taken as close in time as possible to the date this Agreement is executed; and ii) an overlay of the Bank Sites boundaries on that aerial photograph. Because Bank Sites are existing sites, design drawings are not required but are part of the administrative record. The Natural Condition of the Bank Sites is further described in detail in periodic biological baseline studies, the most recent of which is described in the *2013-2014 Biological Surveys of Long Beach and Los Angeles Harbors*, completed in 2016.

4. City's Duties

The City shall:

a. Cooperate with USACE in the protection of the Natural Condition of the Bank Sites;

b. Repair and restore damage to the Bank Sites directly caused by the City, its respective employees, contractors, representatives, agents, and invitees under the City's control; provided, however, the City shall not engage in any repair or restoration work on the Bank Sites without first consulting with USACE, except as provided in Section 6;

c. Notify the Interagency Review Team (IRT) within 24 hours of occurrence or discovery of an event of Force Majeure or Unlawful Act or Catastrophic Event, and as promptly thereafter as reasonably possible, the Parties shall meet to discuss the course of action in response to such occurrence. In the meantime, the Bank Sponsor or Property Manager shall continue to manage and maintain the Bank Site according to the BEI to the fullest extent practicable.

d. Obtain applicable governmental permits and approvals for any activity or use permitted by this Agreement, and any activity or use shall be undertaken in accordance with all applicable federal, state, local, and administrative agency statutes, ordinances, rules, regulations, orders, or requirements; and

e. Perform long-term maintenance on the Bank Sites set forth in Section 7.

5. Prohibited Uses

Any activity on or use of the Bank Sites inconsistent with the Purpose of this Agreement is prohibited. Without limiting the generality of the foregoing, the following uses by the City, and its respective employees, contractors, representatives, agents, and invitees under the City's control, are expressly prohibited:

a. Commercial, institutional, or industrial uses except those allowed under Section 6;

b. Construction, reconstruction, or placement of any structure or improvement of any kind; except those specifically allowed under Sections 3, 6 and 7;

c. Intentional deposition or accumulation of soil, trash, ashes, refuse, waste, bio-solids or any other material, excluding natural movement of sediments and biological matter in the water column;

d. Intentional introduction or dispersal of non-native or exotic plant or animal species;

e. Filling, dumping, excavating, draining, dredging, mining, drilling, removing, or exploring for or extraction of minerals, loam, gravel, soil, rock, sand, or other material within the Bank Sites except those specifically allowed under Sections 3, 6 and 7;

f. Altering the general bathymetry of the Bank Sites, except as specifically allowed under Sections 6 and 7 or as specifically provided for in the Long-term Management Plan;

g. Manipulating, impounding, or altering any natural watercourse, body of water, or water circulation on the Bank Sites, and activities or uses detrimental to water

quality, including but not limited to degradation or pollution of any waters unless the manipulation of such a water body returns the system to a natural functioning condition;

h. Transferring, encumbering, selling, leasing, or otherwise separating the mineral or air rights for the Bank Sites;

i. Engaging in any use or activity that may violate, or may fail to comply with, relevant federal, state, or local laws, regulations, or policies applicable to City, the Bank Sites, or the use or activity in question; and

j. No use shall be made of the Bank Sites, and no activity thereon shall be permitted, that is or is likely to become inconsistent with the Purpose of this Agreement. The Parties acknowledge that, in view of the nature of this Agreement, they are unable to foresee all potential future land uses, future technologies, and future evolution of the land and other natural resources, and other future occurrences affecting the Purpose of this Agreement. USACE, therefore, may determine whether: i) proposed uses or proposed improvements not contemplated by or addressed in this Agreement; or ii) alterations in existing uses or structures are consistent with the Purpose of this Agreement.

6. Reserved Rights

The City reserves all rights accruing from its control of the Bank Sites, including the right to engage in or to permit or invite others to engage in all uses of the Bank Sites that are not prohibited or limited by, and are consistent with, the Purpose of this Agreement. The uses included in this Section recognize the legacy nature of the Bank Sites and the fact that they are in areas of active Port operations. Uses include the following:

a. Port Activities

Normal Port maritime and cargo operations listed below shall be allowed as specified in the Bank Sites based on the types of habitat in which they occur. The terms Constrained and Enhanced Harbor Habitat are defined in Section II of the BEI.

i. Constrained Harbor Habitat

(1) Vessel transit through and adjacent to the site;

(2) Vessel berthing in the site and offloading of goods, commodities and passengers adjacent to and in the site;

(3) Leasing of Bank Sites to City tenants in support of Tideland Trust uses;

(4) Placement of navigational aids;

(5) Homeland security actions deemed necessary to protect people or assets;

(6) Commercial diving activities related to maintenance and safety of adjacent Harbor Department or tenant infrastructure;

(7) Biological monitoring, including sampling and research diving activities;

(8) Maintenance dredging to maintain design water depth, wharf maintenance including replacement of piles, and revetment maintenance in support of Tidelands Trust uses, all pursuant to required Department of the Army permits;

(9) Capital dredging and associated wharf improvements, including installation of new piles and revetments, all pursuant to required Department of the Army permits; and

(10) Landfill for developments in support of Tidelands Trust uses with required Department of the Army (DA) permits and compensatory mitigation for loss of Waters of the United States. Compensatory mitigation provided under a DA permit should be of higher quality habitat than the filled bank site and shall be determined by USACE at the time of permitting and may exceed a ratio of 2:1.

ii. Enhanced Harbor Habitat

(1) Vessel transit through and adjacent to the site, unless depth restrictions prohibit safe passage through or around the site;

(2) Placement of navigational aids;

(3) Homeland security actions deemed necessary to protect people or assets;

(4) Commercial diving activities related to maintenance and safety of adjacent City or tenant infrastructure;

(5) Biological monitoring, including sampling and research diving activities; and

b. Access

The City shall have the right to maintain reasonable access through the Bank Sites to adjacent facilities over water, or to perform obligations or other activities permitted by this Agreement or that are required under the Long-term Management Plan. In addition, peace officers or other government agencies may enter the Bank Sites to address any public health or safety matter.

c. Habitat Enhancement Activities

The City shall have the right to perform establishment, restoration, and/or enhancement of native plant communities so long as such activities do not unnecessarily harm the habitat types identified in the Long-term Management Plan. Prior to any habitat enhancement activities, the City shall submit detailed plans to USACE for review and approval. Habitat enhancement activities shall not be in direct or potential conflict with the preservation of the Natural Condition of the Bank Sites or the Purpose of this Agreement and shall be performed in compliance with all applicable statutes, regulations, and permitting requirements.

d. Vegetation, Debris, and Exotic Species

The City shall have the right to perform removal or trimming of vegetation downed or damaged due to natural causes, removal of man-made debris, removal of parasitic vegetation (as it relates to the health of the host plant) and removal of non-native or undesirable plant or animal species. Vegetation, debris, and undesirable plant species removal shall not be in direct or potential conflict with the preservation of the Natural Condition of the Bank Sites or the Purpose of this Agreement and shall be performed in compliance with all applicable laws, regulations, and permitting requirements.

e. Future Compensatory Mitigation Activities

The City shall have the right to conduct future compensatory mitigation activities, provided those activities do not negatively impact the terms of the Long-term Management Plan and are otherwise authorized by Department of the Army permit.

f. Recreational Uses

The City shall have the right to allow public recreational uses on the Bank Sites, including but not limited to boating, bird watching, fishing, educational visits, and scientific study.

7. Long-term Management

a. Upon execution of this Agreement, the City shall be responsible for ongoing, long-term maintenance of the Bank Sites as described in the Long-term Management Plan.

b. The City shall be responsible for restoration of the Bank Sites damaged by any activities prohibited by Section 5.

c. The City shall prepare an annual monitoring and maintenance report documenting activities performed under Section 7.a, and shall make reports available to the IRT.

d. When activities are performed pursuant to Section 7.b, the City shall prepare and submit a draft Restoration Plan to USACE for review and approval prior to its implementation. Upon completion of restoration as specified in the approved Restoration Plan, the City shall prepare a detailed monitoring report, and shall make the report available to USACE within 90 days of completion of restoration activities.

8. Enforcement

a. Notice of Non-Compliance

i. If USACE reasonably determines the City is in non-compliance with the terms of this Agreement or that a violation is imminent, USACE may demand the cure for such non-compliance. In such a case, USACE shall issue a written notice to the City (Notice of Non-Compliance) informing the City of the violation and demanding cure of such violation.

ii. The City shall cure all actual noticed violations within 90 days of receipt of the written Notice of Non-Compliance. If a cure reasonably requires more than 90 days, the City shall, within the 90-day period, submit to USACE for review and approval a plan and time schedule to diligently complete a cure. The City shall complete such cure in accordance with the approved plan. If the City disputes the Notice of Non-Compliance, it shall issue a written notice of such dispute (Notice of Dispute) to USACE within 90 days of receipt of written Notice of Non-Compliance.

iii. If the City fails to cure the noticed violation(s) within the time period(s) described in Section 8.a.ii or Section 8.b, USACE may bring an action at law or in equity in a court of competent jurisdiction to enforce compliance by the City with the terms of this Agreement. In such action, USACE may seek to enjoin the violation, by temporary or permanent injunction. The City may interpose any and all defenses at law and equity that it deems appropriate in response to any such action. USACE shall first apply any damages recovered to the cost of undertaking any corrective action on the Bank Sites. If the City provides USACE with a notice of dispute, as provided herein, the Parties shall meet and confer at a mutually agreeable place and time, not to exceed 60 days from the date that USACE receives the notice of dispute. USACE shall consider all relevant information concerning the disputed violation provided by the City, and shall determine whether a violation has in fact occurred and, if so, whether the Notice of Non-Compliance and demand for cure issued by USACE is appropriate in light of the violation.

iv. If, after reviewing the City's notice of dispute, conferring with the City, and considering all relevant information related to the violation, USACE reasonably determines that a violation has occurred, USACE shall give the City notice of such determination in writing. Upon receipt of such determination, the City shall have 60 days to cure the actual violations. If a cure reasonably requires more than 60 days, the City shall, within the 60-day period, submit to USACE for review and approval a plan and time schedule to diligently complete a cure. The City shall complete such cure in accordance with the approved plan.

b. Immediate Action

If USACE determines that circumstances require immediate action to prevent or mitigate significant damage to the Natural Condition of the Bank Sites, USACE may immediately pursue declaratory or injunctive relief, available pursuant to both this Agreement and state and federal law after giving the City at least 24 hours' written notice before pursuing such relief. So long as such 24 hours' notice is given, USACE may immediately pursue declaratory or injunctive relief without waiting for the expiration of the time periods provided for cure or notice of dispute as described in Section 8.a.ii for irreparable harm. The written notice pursuant to this paragraph may be transmitted to the City by electronic mail. The rights of USACE under this paragraph apply equally to actual or threatened violations of the terms of this Agreement. The City may assert in response all legal and equitable defenses and counter-claims that it deems appropriate in response to such action. The remedies described in this Section shall be cumulative and shall be in addition to all relief now or hereafter existing at law or in equity.

c. Enforcement Discretion

Enforcement of the terms of this Agreement shall be at the discretion of USACE. Any forbearance by USACE to exercise rights under this Agreement in the event of any breach of any term of this Agreement by the City shall not be deemed or construed to be a waiver by USACE of such term or of any subsequent breach of the same or any other term of this Agreement or of any of the rights of USACE under this Agreement. No delay or omission by USACE in the exercise of any right or remedy upon any breach by the City shall impair such right or remedy or be construed as a waiver. Further, nothing in this Agreement creates non-discretionary duty upon USACE to enforce its provisions, nor shall deviation from these terms and procedures or failure to enforce its provisions give rise to a private right of action against USACE by any third parties.

d. Acts Beyond the City's Control

i. Nothing contained in this Agreement shall be construed to entitle USACE to bring any action against the City for any injury to or change in the Bank Sites resulting from:

(1) Any natural cause beyond the City's control, including without limitation, fire not caused by the City, flood, storm, tsunami, drought, climate change, and earth movement, or other Force Majeure event;

(2) Any prudent action taken by the City under emergency conditions to prevent, abate, or mitigate significant injury to the Bank Sites resulting from such causes; and

(3) Any acts of third parties beyond the control of the City, including but not limited to Catastrophic Events and Unlawful Acts.

ii. Notwithstanding the foregoing, the City must obtain any applicable governmental permits and approvals for any activity or use permitted by this Agreement and undertake any activity or use in accordance with all applicable federal, state, local, and administrative agency statutes, ordinances, rules, regulations, orders, or requirements.

9. Costs and Liabilities

a. The City retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, management, and maintenance of the Bank Sites. The City agrees USACE shall not have any duty or responsibility for the operation, upkeep, management, or maintenance of the Bank

Sites, the monitoring of hazardous conditions thereon, or the protection of the City, the public or any third parties from risks relating to conditions on the Bank Sites. The City remains solely responsible for obtaining any applicable governmental permits and approvals for any activity or use permitted by this Agreement, and any activity or use shall be undertaken only in accordance with all applicable federal, state, local, and administrative agency statutes, ordinances, rules, regulations, orders, and requirements.

b. Notwithstanding the above, this Agreement does not confer any liability upon the City for claims payable by USACE under the Federal Torts Claims Act, provided further that nothing in this Agreement is intended or will be construed to create any rights or remedies for any third party and no third party is intended to be a beneficiary of this Agreement.

c. USACE shall be responsible for coordinating with the Department of Justice as appropriate involving litigation which may result in potential liability of any kind on the United States. USACE shall notify the City of any such litigation and afford the City an opportunity to review and comment on the litigation proceedings and any resulting settlement negotiations.

10. Transfer of Bank Sites

a. The City shall give written notice to USACE of the City's intent to transfer any interest in the Bank Sites at least 60 days prior to the date of such transfer, subject to the right of the State of California to rescind, cancel, or terminate the Tidelands Grant, as amended.

b. Transfer of the Bank Sites shall provide for the future conservation protection of the Bank Sites pursuant to the intent of this Agreement. Although USACE is not authorized under the Rivers and Harbors Act, Section 10, or the Clean Water Act, Section 404, to hold an interest in mitigation land either in fee or as a holder of an easement, it does have the authority pursuant to the Clean Water Act, Section 404, to enforce the protection of the Waters of the United States, and their buffers, on the Bank Sites. Therefore, if the Bank Sites are transferred, USACE may approve a new means for protection of the Bank Sites prior to transfer.

11. Assignment of Agreement

This Agreement is not assignable by the City, except to the State of California or another public or governmental entity, either in whole or in part, without the prior consent of USACE, in the form of a formal written amendment to this Agreement.

12. Notices

Any notice, demand, request, consent, approval, or communication that either Party desires or is required to give to the other shall be in writing and be served personally or sent by first class mail, postage prepaid, addressed as follows:

To the City: Los Angeles Harbor Department
425 South Palos Verdes Street
San Pedro, California 90731
Attn: General Counsel; Director of Environmental Management
Phone: (310) 732-3750; (310) 732-3675
Fax: (310) 831-9778

To USACE: U.S. Army Corps of Engineers, Los Angeles District
915 Wilshire Boulevard
Los Angeles, California 90017
Attn: Chief, North Coast Branch, Regulatory Division
Phone: (805) 585-2141
Fax: (805) 585-2154

or to such other address as either party shall designate by written notice to the other. Notice shall be deemed effective upon delivery in the case of personal delivery or, in the case of delivery by first class mail, 5 days after deposit into the United States mail.

The Parties agree to accept facsimile signed documents and agree to rely upon such documents as if they bore original signatures, including such documents transmitted via electronic mail. Each Party agrees to provide to the other parties, within 72 hours after transmission of such a facsimile, the original documents that bear the original signatures.

13. Amendment, Modification, and Termination

a. This Agreement may be modified or amended only by written, mutual agreement of the Parties. Any such amendment shall be consistent with the Purposes of this Agreement.

b. This Agreement may be terminated by either Party with 90 days written notice of intent to terminate to the other Party. If the Agreement is terminated, USACE may approve a new means for protection of the Bank Sites prior to termination.

14. General Provisions

a. Applicable Laws

The laws of the United States, the State of California, and the Los Angeles City Charter, disregarding the conflicts of laws principles of such state, shall govern the interpretation and performance of this Agreement.

b. Local Courts

The parties agree that all actions or proceedings arising in connection with this Agreement shall be tried and litigated exclusively in the federal courts located in the County of Los Angeles, the State of California, in the judicial district required by court rules.

c. No Forfeiture

Nothing contained herein shall result in a forfeiture or reversion of the City's control of the Bank Sites in any respect.

d. No Waiver of Sovereign Immunity

This Agreement shall not be construed as a waiver of the sovereign immunity of the United States. The United States reserves all defenses and immunities to suit under applicable federal laws.

e. Liberal Construction

Any general rule of construction to the contrary notwithstanding, this Agreement shall be liberally construed to affect the Purpose of this Agreement. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the Purpose of this Agreement that would render the provision valid shall be favored over any interpretation that would render it invalid.

f. Severability

If a court of competent jurisdiction voids or invalidates on its face any provision of this Agreement, such action shall not affect the remainder of this Agreement. If a court of competent jurisdiction voids or invalidates the application of any provision of this Agreement to a person or circumstance, such action shall not affect the application of the provision to other persons or circumstances.

g. Captions

The captions in this instrument have been inserted solely for convenience of

reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

h. Entire Agreement

This instrument together with the attached exhibits and any documents referred to herein sets forth the entire agreement of the Parties with respect to the Agreement and supersedes all prior discussions, negotiations, understandings, or agreements relating to the Agreement. No alteration or variation of this Agreement shall be valid or binding unless contained in an amendment in accordance with Section 13.

i. No Hazardous Materials Liability

i. The City represents that it has no knowledge of any intentional release of Hazardous Materials (defined below) on, or from the Bank Sites, or transported to or from or affecting the Bank Sites.

ii. The City represents that it has no knowledge of underwater tanks existing, generated, treated, stored, used, released, disposed of, deposited or abandoned on, or from the Bank Sites, or transported to or from or affecting the Bank Sites.

iii. Despite any contrary provision of this Agreement, the Parties do not intend this Agreement to be, and this Agreement shall not be, construed such that it creates in or gives USACE any of the following:

(1) The obligations or liabilities of an "owner" or "operator," as those terms are defined and used in Environmental Laws (defined below), including, without limitation, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (42 U.S.C. Section 9601 *et seq.*) (CERCLA); or

(2) The obligations or liabilities of a person described in 42 U.S.C. Section 9607(a)(3) or (4); or

(3) The obligations of a responsible person under any applicable Environmental Laws (as hereinafter defined); or

(4) The right to investigate and remediate any Hazardous Materials associated with the Bank Sites; or

(5) Any control over the City's ability to investigate, remove, remediate, or otherwise clean up any Hazardous Materials associated with the Bank Sites.

iv. The term "Hazardous Materials" includes, without limitation: 1) material that is

flammable, explosive or radioactive; 2) petroleum products, including by-products and fractions thereof; and 3) hazardous materials, hazardous wastes, hazardous or toxic substances, or related materials defined in CERCLA, the Resource Conservation and Recovery Act (42 U.S.C. Section 6901 *et seq.*); the Hazardous Materials Transportation Act (49 U.S.C. Section 5101 *et seq.*); the Hazardous Waste Control Law (California Health & Safety Code Section 25100 et seq.); the Hazardous Substance Account Act (California Health & Safety Code Section 25300 *et seq.*), and in the regulations adopted and publications promulgated pursuant to them, or any other applicable federal, state, or local laws, ordinances, rules, regulations, or orders now in effect or enacted after the date of this Agreement.

v. The term "Environmental Laws" includes, without limitation, any federal, state, local, or administrative agency statute, ordinance, rule, regulation, order, or requirement relating to pollution, protection of human health or safety, the environment or Hazardous Materials. The City represents and covenants to USACE that the City's activities upon and use of the Bank Sites will comply with all Environmental Laws.

j. Additional Interests

i. The City shall not grant any easements, rights of way, or other interests in the Bank Sites, except as specifically allowed by state law and as provided under Sections 3 and 6 or as specifically provided for in the Long-term Management Plan, (other than a security interest that is subordinate to this Agreement), without first giving written notice to USACE. This Section shall not prohibit transfer of a fee or leasehold interest in the Bank Sites that complies with Section 10 of this Agreement.

k. Recordation

This Agreement shall be considered a standing Agreement of the Board by City within 30 days from the Effective Date.

15. Effective Date and Duration

Upon approval of this Agreement in accordance with the laws of the United States and the Charter of the City of Los Angeles, this Agreement will become effective on the date of signature by the last Party. This Agreement shall remain in force until whichever of these events occurs first: 1) the Bank Sites are transferred pursuant to Section 10; or 2) the Agreement is terminated pursuant to Section 13.

[Signature Page Follows]

IN WITNESS WHEREOF, the City of Los Angeles, acting by and through the Board of Harbor Commissioners, and the U.S. Army Corps of Engineers, acting by and through its authorized officer, the District Commander, executes this Agreement. Each of the undersigned certifies that he or she has full authority to bind the Party that he or she represents for purposes of entering into this Agreement.

Kirk E. Gibbs
Colonel, U.S. Army
Commander and District Engineer

Date

Gene Seroka
Executive Director
Harbor Department
City of Los Angeles

Date

Attest: _____
Amber M. Klesges
Board Secretary

APPROVED AS TO FORM AND LEGALITY
Jan. 3, 2018
Michael N. Feuer, City Attorney
Janna B. Sidley, General Counsel

By _____
Christopher B. Bobo, Assistant

Constrained Harbor Habitat

- West Basin Widening (cut): 5.70 credits
- Downtown Harbor Cut: 1.20 credits
- Cabrillo Marina Phase II: 2.85 credits

Total Credits From Sites: 9.75 Credits
Credits Remaining from Sites: ***9.75***

Enhanced Harbor Habitat:

- Cabrillo Shallow Water Habitat
  - Phase 1: 95.95 credits
  - Phase 2: 40.50 credits
  - Phase 3: 10.75 credits
  - Phase 4: 24.30 credits

Total Credits From Sites: 171.50
Credits Remaining from Sites: ***84.10***

Port of Los Angeles Harbor Habitat BEI:

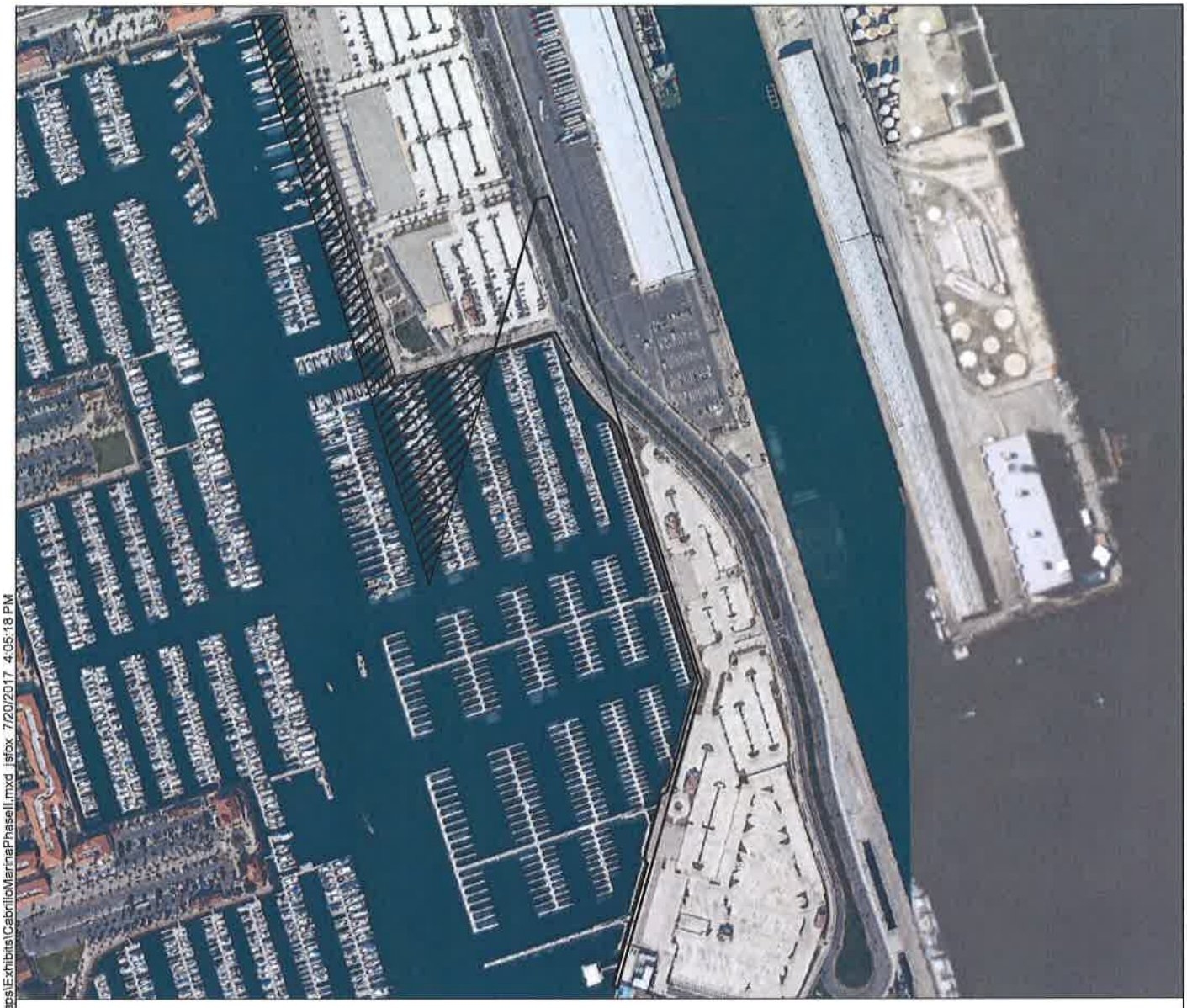
- Standard Harbor Habitat
- Constrained Harbor Habitat
- Enhanced Harbor Habitat

0 0.4 0.8
Miles

Q:\Jobs\100711-01.01_Port_of_Los_Angeles_Mitigation_Bank\Maps\Exhibits\Exhibit D-2 Initial Bank Sites.mxd nkochie 6/27/2016 11:44:04 AM

ANCHOR QEA

Figure D-2
Bank Sites
Port of Los Angeles Harbor Habitat Mitigation Bank



WATER CUT
Those portions of the tide and submerged lands in the City of Los Angeles, County of Los Angeles, State of California within the Rancho Los Palos Verdes, Inner Bay of San Pedro and Pacific Ocean as shown on the Map recorded in Book 2, pages 543 through 545, of Patents, together with those portions within the Rancho San Pedro as shown on the Map recorded in Book 1, pages 119 through 121, of Patents, both in the office of the County Recorder of said County, bounded and described as follows:

Commencing at U.S. Pierhead Point 111 as shown on Los Angeles Harbor Department Drawing No. 1-1241-2A on file in the office of the Chief Harbor Engineer of the City of Los Angeles Harbor Department; thence North 31°05'29" East 46.72 feet to the TRUE POINT OF BEGINNING; thence South 17°25'28" East 1,836.72 feet; thence North 15°34'32" East 758.95 feet to a point to be hereinafter referred to as "Point C"; thence South 72°34'32" West 318.86 feet; thence North 17°25'28" West 1,177.43 feet; thence South 86°07'28" West 97.21 feet to the TRUE POINT OF BEGINNING.

Having an area of 5.60 acres, more or less.

FILL AREA
Those portions of the tide and submerged lands in the City of Los Angeles, County of Los Angeles, State of California within the Rancho Los Palos Verdes, Inner Bay of San Pedro and Pacific Ocean as shown on the Map recorded in Book 2, pages 543 through 545, of Patents, together with those portions within the Rancho San Pedro as shown on the Map recorded in Book 1, pages 119 through 121, of Patents, both in the office of the County Recorder of said County, bounded and described as follows:

Beginning at "Point C"; thence North 15°34'32"East 472.89 feet; thence North 72°34'32" East 40.01 feet; thence South 17°25'28" East 1,577.05; thence South 15°34'32" West 974.43; thence North 74°25'28" West 15.00 feet; thence North 15°34'32" East 391.25 feet; thence North 29°25'28" West 19.80 feet; thence North 15°34'32" East 201.68 feet; thence North 60°34'32" East 19.80 feet; thence North 15°34'32" East 357.77 feet; thence North 17°25'28" West 794.02; thence northerly along a tangent curve concave to the West and having a radius of 150.00 feet, through a central angle of 27°53'15" an arc distance of 73.01 feet; thence northerly along a reverse curve concave to the East and having a radius of 835.00 feet, through a central angle of 14°09'35" an arc distance of 206.36 feet; thence non- to said last-mentioned curve North 62°12'02"East 14.05 feet; thence North 27°47'48"West 102.50 feet; thence South 72°34'32" West 197.82 feet; thence North 15°34'32"East 10.43 feet to the point of beginning.

Having an area of 2.75 acres, more or less.

Cabrillo Marina Phase II Cut

Cabrillo Marina Phase II Fill

Feet
0 250 500

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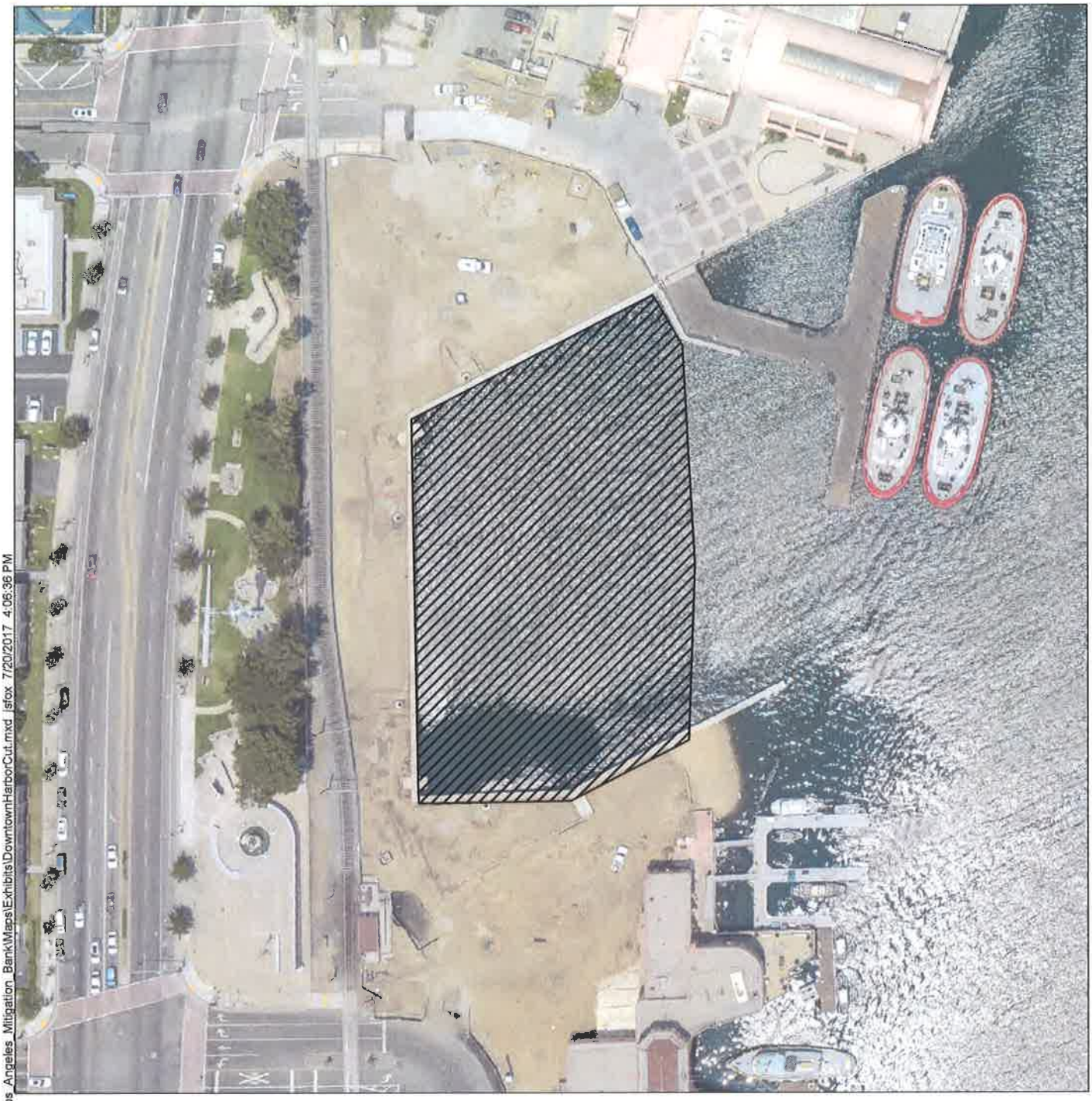
ANCHOR QEA

Exhibit D-3a
Cabrillo Marina Phase II
Legal Descriptions of Bank Sites
Port of Los Angeles Harbor Habitat Mitigation Bank



Those portions of the tide and submerged lands in the City of Los Angeles, County of Los Angeles, State of California within the Rancho Los Palos Verdes, Inner Bay of San Pedro and Pacific Ocean as shown on the Map recorded in Book 2, pages 543 through 545, of Patents, together with those portions within the Rancho San Pedro as shown on the Map recorded in Book 1, pages 119 through 121, of Patents, both in the office of the County Recorder of said County, bounded and described as follows:

Commencing at U.S. Pierhead Point 135A as shown on Los Angeles Harbor Department Drawing No. 1-1241-2A on file in the office of the Chief Harbor Engineer of the City of Los Angeles Harbor Department; thence South 25°35'28" West 188.26 feet to the TRUE POINT OF BEGINNING; thence North 1°51'03" East 118.52 feet; thence North 3°17'06" West 147.16 feet; thence North 30°02'37" West 39.05 feet; thence South 62°44'05" West 182.12 feet; thence South 1°00'00" East 258.23 feet; thence North 89°00'00" East 102.67 feet; thence North 62°44'05" East 88.74 feet to the TRUE POINT OF BEGINNING.

Having an area of 1.2 acres, more or less.

Downtown Harbor Cut

Feet
0 50 100

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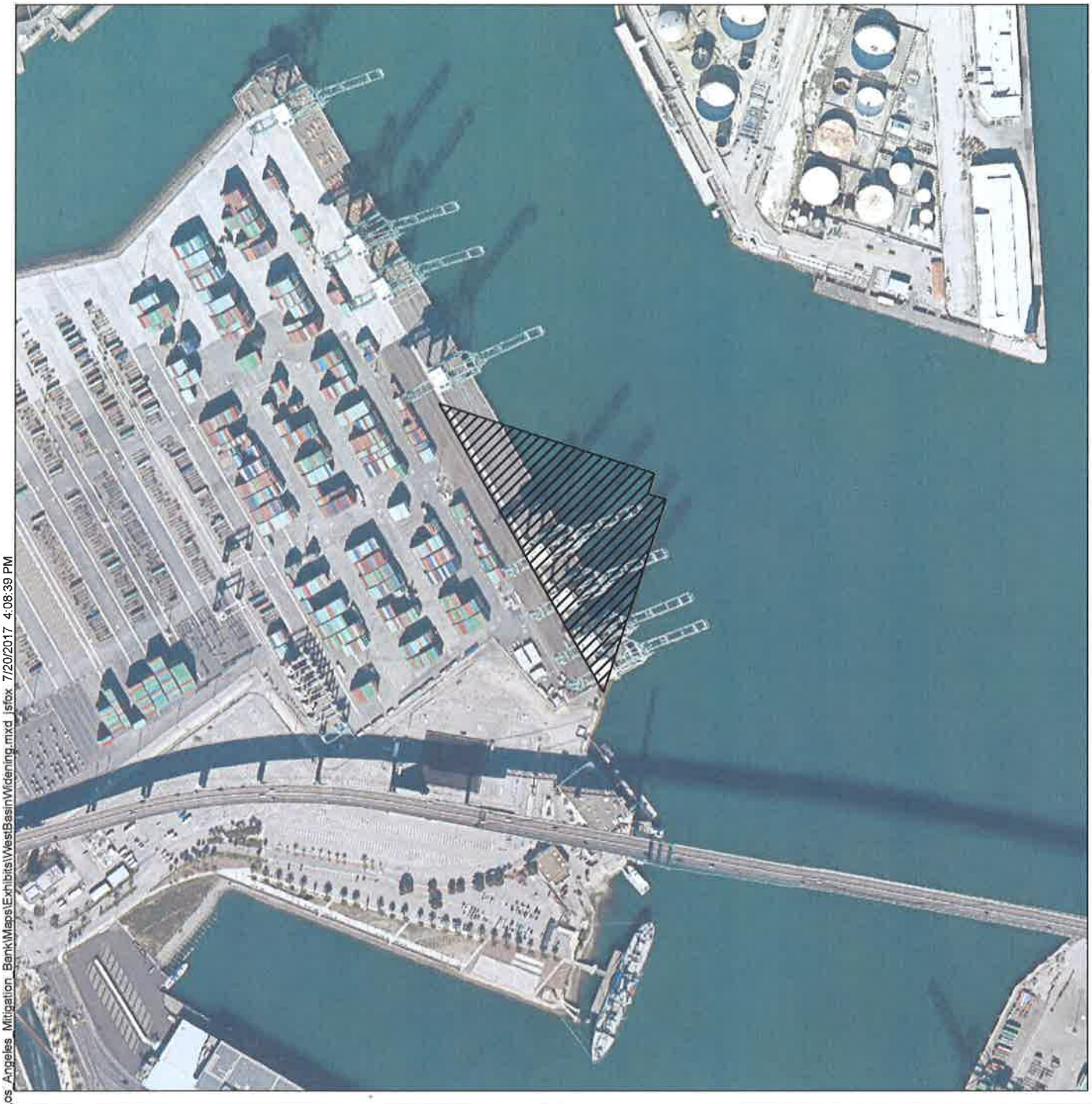
ANCHOR QEA

Exhibit D-3b
Downtown Harbor Cut
Legal Descriptions of Bank Sites
Port of Los Angeles Harbor Habitat Mitigation Bank



Those portions of the tide and submerged lands in the City of Los Angeles, County of Los Angeles, State of California within the Rancho Los Palos Verdes, Inner Bay of San Pedro and Pacific Ocean as shown on the Map recorded in Book 2, pages 543 through 545, of Patents, together with those portions within the Rancho San Pedro as shown on the Map recorded in Book 1, pages 119 through 121, of Patents, both in the office of the County Recorder of said County, bounded and described as follows:

Commencing at U.S. Pierhead Point 169B as shown on Los Angeles Harbor Department Drawing No. 1-1241-2A on file in the office of the Chief Harbor Engineer of the City of Los Angeles Harbor Department; thence North 8°58'23" West 147.50 feet to the TRUE POINT OF BEGINNING; thence North 29°33'50" West 1,002.00 feet; thence South 71°58'44" East 682.72 feet; thence South 18°01'16" West 64.00 feet; thence South 72°04'50" East 55.95 feet; thence South 17°55'10" West 611.94 feet to the TRUE POINT OF BEGINNING.

Having an area of 5.7 acres, more or less.

West Basin Cut

Feet
0 225 450

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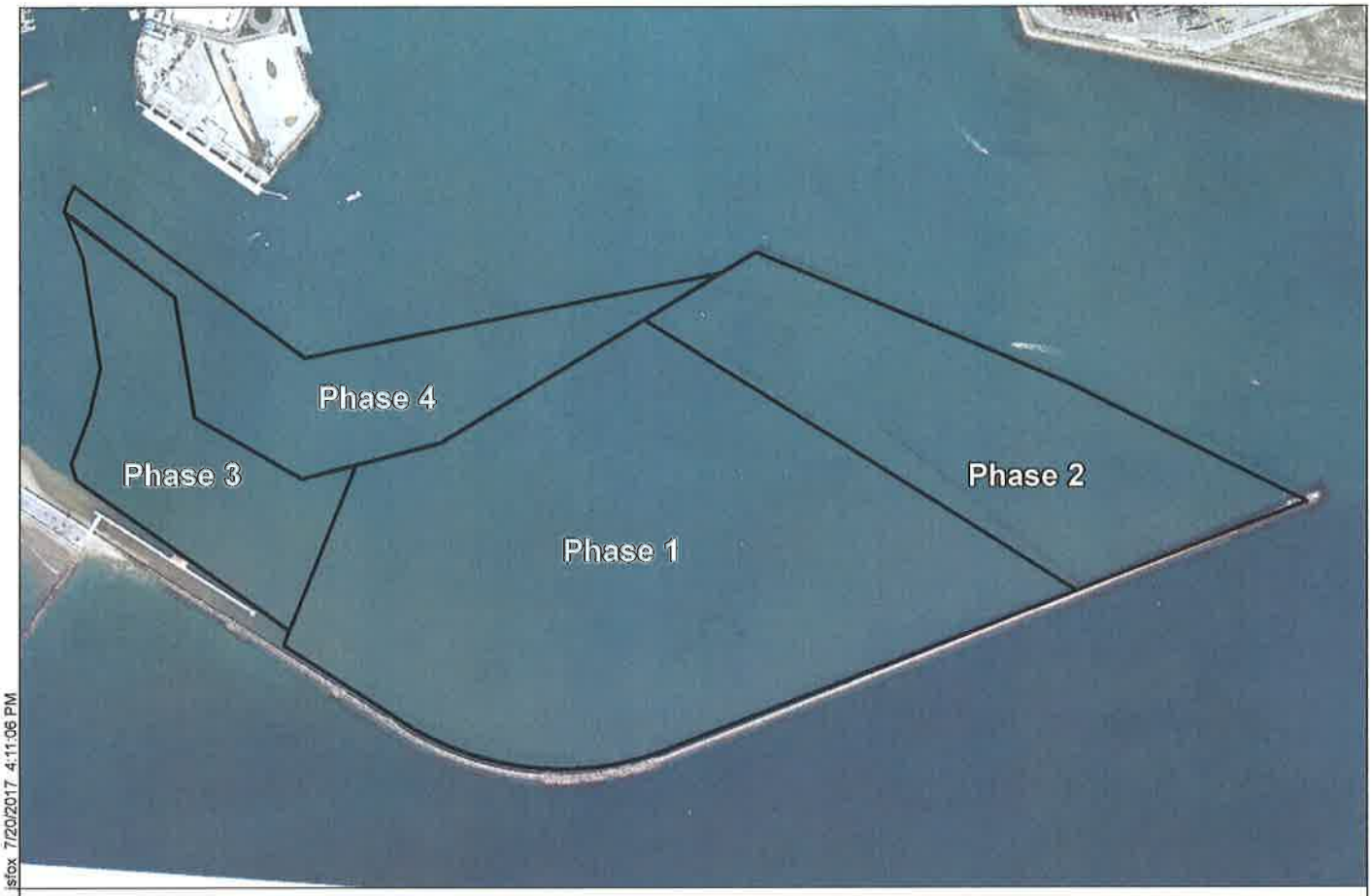
ANCHOR QEA

Exhibit D-3c
West Basin Cut
Legal Descriptions of Bank Sites
Port of Los Angeles Harbor Habitat Mitigation Bank



PHASE 1
Those portions of the tide and submerged lands in the City of Los Angeles, County of Los Angeles, State of California within the Rancho Los Palos Verdes, Inner Bay of San Pedro and Pacific Ocean as shown on the Map recorded in Book 2, pages 543 through 545, of Patents, together with those portions within the Rancho San Pedro as shown on the Map recorded in Book 1, pages 119 through 121, of Patents, both in the office of the County Recorder of said County, bounded and described as follows:

Commencing at U.S. Pierhead Point 101 as shown on Los Angeles Harbor Department Drawing No. 1-1241-2A on file in the office of the Chief Harbor Engineer of the City of Los Angeles Harbor Department; thence South 57°58'56" East 1,724.70 feet to the TRUE POINT OF BEGINNING; thence North 21°42'51" East 1,243.80 feet to a point to be hereinafter referred to as "Point A"; thence North 75°24'21" East 567.05 feet; thence North 58°45'26" East 1,519.64 feet to a point to be hereinafter referred to as "Point B"; thence South 57°50'32" East 3,273.17 feet; thence South 68°52'38" West 2,804.55 feet; thence westerly along a tangent curve concave to the north and having a radius of 1,885.26 feet, through a central angle of 53°58'23" an arc distance of 1,775.93 feet; thence tangent to said curve North 57°08'59" West 905.93 feet to the TRUE POINT OF BEGINNING.

Having an area of 191.9 acres, more or less.

PHASE 2
Those portions of the tide and submerged lands in the City of Los Angeles, County of Los Angeles, State of California within the Rancho Los Palos Verdes, Inner Bay of San Pedro and Pacific Ocean as shown on the Map recorded in Book 2, pages 543 through 545, of Patents, together with those portions within the Rancho San Pedro as shown on the Map recorded in Book 1, pages 119 through 121, of Patents, both in the office of the County Recorder of said County, bounded and described as follows:

Beginning at "Point B"; thence North 58°45'26" East 833.70 feet; thence South 67°16'16" East 2,161.43 feet; thence South 63°36'31" East 1,725.88 feet; thence South 68°52'38" West 1,588.07 feet; thence North 57°50'32" West 3,273.17 feet to the point of beginning.

Having an area of 81.0 acres, more or less.

PHASE 3
Those portions of the tide and submerged lands in the City of Los Angeles, County of Los Angeles, State of California within the Rancho Los Palos Verdes, Inner Bay of San Pedro and Pacific Ocean as shown on the Map recorded in Book 2, pages 543 through 545, of Patents, together with those portions within the Rancho San Pedro as shown on the Map recorded in Book 1, pages 119 through 121, of Patents, both in the office of the County Recorder of said County, bounded and described as follows:

Beginning at "Point A"; thence South 21°42'51" West 1,140.82 feet; thence North 54°37'23" West 1,677.67 feet; thence North 14°07'50" West 106.15 feet; thence North 20°44'47" East 339.05 feet; thence North 12°59'40" East 298.07; thence North 8°49'45" West 711.49 feet; thence North 21°47'48" West 324.88 feet; thence South 52°00'29" East 893.79 feet; South 8°55'46" East 780.56 feet; thence South 60°05'39" East 792.90 feet; thence North 75°24'21" East 357.27 feet to the point of beginning.

Having an area of 43.0 acres, more or less.

PHASE 4
Those portions of the tide and submerged lands in the City of Los Angeles, County of Los Angeles, State of California within the Rancho Los Palos Verdes, Inner Bay of San Pedro and Pacific Ocean as shown on the Map recorded in Book 2, pages 543 through 545, of Patents, together with those portions within the Rancho San Pedro as shown on the Map recorded in Book 1, pages 119 through 121, of Patents, both in the office of the County Recorder of said County, bounded and described as follows:

Beginning at "Point A"; thence South 75°24'21"West 357.27 feet; thence North 60°05'39" West 792.90 feet; thence North 8°55'46" West 780.56 feet; thence North 52°00'29" West 893.79 feet; thence North 12°49'23" East 75.00; thence North 27°44'36" East 100.31 feet; thence South 53°05'12" East 1,835.06 feet; thence North 78°30'00" East 2,721.79 feet; thence South 58°45'26" West 2,094.00 feet; thence South 75°24'21" West 567.06 feet to the point of beginning.

Having an area of 48.6 acres, more or less.

Cabrillo Shallow Water Habitat

Feet
0 600 1,200

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ANCHOR QEA

Exhibit D-3d
Cabrillo Shallow Water Habitat
Legal Descriptions of Bank Sites
Port of Los Angeles Harbor Habitat Mitigation Bank

EXHIBIT E

BANK CREDITS AND CREDIT TRANSFERS

E-1: Credit Evaluation and Credit Table

E-2: Credit Transfer Ledger Template

EXHIBIT E-1: CREDIT EVALUATION AND CREDIT TABLE

The habitat assessment methodology for the Port of Los Angeles Harbor Habitat Mitigation Bank (Bank) relies on biological surveys of Los Angeles Harbor and valuations carried forward from the Inner Harbor and Outer Harbor Agreements.[1] All Credits produced as part of the Bank occur in Waters of the United States. The Credits do not include special aquatic sites as defined in 40 Code of Federal Regulations (CFR) Part 230 Subpart E; and Credits cannot be used as compensatory mitigation for impacts to special aquatic sites. Therefore, Credits will be for Waters of the United States and will have a standardized value.

Harbor Habitat is classified into three types based on distinct characteristics of each type. The three habitats include:

- *Standard Harbor Habitat* is the general condition found in the majority of the Los Angeles Harbor. It comprises all areas not defined as Constrained Harbor Habitat or Enhanced Harbor Habitat as designated in Exhibit A-2.
- *Constrained Harbor Habitat* comprises areas with reduced tidal circulation, greater freshwater input from storm drains, or other conditions that have been shown to reduce the quality or extent of aquatic functions compared to other Harbor Habitats as designated in Exhibit A-2.
- *Enhanced Harbor Habitat* comprises relatively shallow areas (less than -20 feet MLLW) with full tidal exchange that provide greater value to fish and birds as designated in Exhibit A-2. Enhanced Harbor Habitat specifically excludes the Pier 400 Submerged Storage Site, as provided in the *Interagency Agreement – Port of Los Angeles Pier 400 Submerged Storage Site*, executed in 2002 and incorporated herein as Exhibit G-2.

[1] As provided in the *Memorandum of Understanding Among the Harbor Department of the City of Los Angeles, the California Department of Fish and Game, the National Marine Fisheries Service, and the U.S. Fish and Wildlife Service to Establish a Procedure for Advance Compensation of Marine Habitat Losses Incurred by Selected Port Development Projects Within the Harbor District of the City of Los Angeles* (known and referred to as the "Inner Harbor Agreement") executed in 1984 and the *Memorandum of Agreement Among the City of Los Angeles, the California Department of Fish and Game, the National Marine Fisheries Service, and the U.S. Fish and Wildlife Service to Establish a Procedure For On-site Compensation of Marine Habitat Losses Incurred by Port Development Landfills within the Harbor District of the City of Los Angeles* (known and referred to as the "Outer Harbor Agreement") executed in 1997.

The ratios of credits to be used to mitigate for the loss of Harbor Habitat are described below and are based on the functionality of the various Harbor Habitat types as determined by the periodic biological surveys described above.

The value of the three types of Harbor Habitat relative to Standard Harbor Habitat has been determined by using past biological baseline studies to be:

- Constrained Harbor Habitat = 0.5
- Standard Harbor Habitat = 1.0
- Enhanced Harbor Habitat = 1.5

Data from future biological baseline studies may be used to adjust the relative value of the Harbor Habitat types. In limited circumstances, when a proposed project would permanently impact Waters of the United States that support sensitive habitat areas near Cabrillo Beach or in the Seaplane Lagoon/Pier 300 area (Exhibit A-2), the U.S. Army Corps of Engineers will use the South Pacific Division's Standard Operating Procedure for Determination of Mitigation Ratios (12501-SPD) to determine how many credits would be required to offset the permanent impact to Waters of the United States. The U.S. Army Corps of Engineers would also use Standard Operating Procedure 12501-SPD to determine credits required to compensate for impacts to additional mitigation sites constructed per the Outer Harbor Agreement[2] and identified in Exhibit G-3.

Credits from Bank Sites located in Constrained Harbor Habitat may only be used to mitigate for loss of Constrained Harbor Habitat, and Credits from Bank Sites located in Enhanced Harbor Habitat may be used to mitigate for loss of Constrained, Standard, or Enhanced Harbor Habitat.

The amount of Waters of the United States Credits associated with the Bank Sites are as follows:

- 9.75 Constrained Harbor Habitat Credits
- 84.1 Enhanced Harbor Habitat Credits

[2] Additional sites were constructed per the Outer Harbor Agreement and contributed to the Credits set forth in that agreement but are not included as Bank Sites within this BEI.

EXHIBIT E-2: CREDIT TRANSFER LEDGER TEMPLATE

Port of Los Angeles Harbor Habitat Mitigation Bank

Credit Totals		**Bank Sponsor:**	City of Los Angeles
Constrained	9.75	**Address:**	425 Palos Verdes St., San Pedro, California 90731
Enhanced	84.1	**Contact:**	Kat Prickett (310) 732-3951

Credit Type	Project Name	Agency Project File No.	Date of Credit Transfer	Project Type and Description	Acreage	Habitat Type	Ratio	Debit	Balance
Constrained Harbor Habitat Credits									
									9.75
Enhanced Harbor Habitat Credits									
									84.1

Credit Use

Ratio = mitigation credits required : acres of habitat impacted

EXHIBIT F
BIOLOGICAL RESOURCES SURVEY

1 INTRODUCTION

The U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (USEPA) issued revised regulations governing compensatory mitigation for impacts to Waters of the United States under Section 404 of the Clean Water Act (CWA) on March 31, 2008. These regulations took effect on June 29, 2008, and are in 33 Code of Federal Regulations (CFR) Part 332 and 40 CFR Part 230. This Biological Resources Survey information supports the City of Los Angeles' (City's) Port of Los Angeles (Port) Harbor Habitat Mitigation Bank (Bank), which pertains to the Harbor Habitat present in Los Angeles Harbor. The City, Bank Sponsor, proposes to use the Bank Sites to assist in mitigating unavoidable impacts to Waters of the United States caused by construction projects in the Port. This Exhibit was prepared in accordance with 33 CFR Part 332.4(c) and includes a general description of geographic location and features, past and present land use, species present and potentially present, and a habitat quality assessment.

1.1 Bank Location and Features

The Port is located in San Pedro Bay, California, approximately 20 miles south of downtown Los Angeles, supporting industrial, commercial, and recreational resources. San Pedro Bay was historically a natural embayment of the Pacific Ocean that has been highly engineered and modified by the federal breakwater, harbor fills to create fastland, channelization and dredging, upland development, and regional growth. The Bank Sites are located within Los Angeles Harbor. Los Angeles Harbor waters are primarily marine. Freshwater input is minimal, coming mainly from urban runoff and discharges from the Los Angeles River and the Dominguez Channel, which have been channelized for most of their length. The Port is surrounded by industrial, commercial, and residential areas, which greatly influence the marine and terrestrial habitats of Los Angeles Harbor.

1.2 Past and Present Land Use

The City, through its Board of Harbor Commissioners (Board), operates the Port of Los Angeles (Port) under the legal mandates of the Port Tidelands Trust (Los Angeles City Charter, Article VI, Section 601; California Tidelands Trust Act of 1911) and the California Coastal Act (CCA; PRC Division 20 Section 30700, et seq.), which identify the Port and its facilities as a primary economic and coastal resource of the State of California and an

essential element of the national maritime industry for promotion of commerce, navigation, fisheries, and operations. The Tidelands Trust stipulates that Port activities should be water dependent and give highest priority to navigation, shipping, and support facilities to accommodate the demands of foreign and domestic water-borne commerce. The Port currently supports 27 passenger and cargo terminals with a primary emphasis on cargo, including automobile, breakbulk, container, dry and liquid bulk, warehouse facilities, a cruise complex, and a ferry service. The Port is also home to 15 recreational marinas, intermodal rail yards associated with cargo terminals, a recreational beach, a retail and commercial corridor, and commercial fishing docks and fish processing facilities.

San Pedro Bay has a long history of documented maritime use and has been used as a commercial port since the late 1700s. The Port was officially founded in 1907 with the creation of the Board. Since 1907, the Port has undergone a series of large-scale development projects including breakwater construction, extensive harbor dredging, significant harbor fills, and terminal and transportation infrastructure construction.

With initial industrialization came poor water quality and degraded marine habitat. For example, as recently as the late 1960s, dissolved oxygen (DO) levels at some locations in the harbor were so low that little or no marine life could survive (Anderson et al. 1993). In the last 40 years, a combination of regulations limiting discharges to the water, and sediment remediation and habitat restoration projects led by the City have greatly improved water quality and, subsequently, the harbor's biological communities.

These improvements have been observed despite major dredging, harbor fills, and terminal developments. In 1985, the Main Channel was deepened from -35 to -45 feet mean lower low water (MLLW) and a 190-acre landfill was created at Pier 300 from the dredged material. Between 1993 and 2001, the Outer Harbor and approach channels were dredged and the material was used to construct the 600-acre Pier 400. Infrastructure expansion has also included smaller terminal-specific fills, such as at Berths 97 and 136, the development of the Pier 300 and 400 fills as container terminals, a new transportation corridor on Terminal Island, and increases in cargo ship calls and cargo ship size within Los Angeles Harbor. The Harbor Department also expanded and improved recreational facilities including Cabrillo Marina, improvements to Cabrillo Beach, and expanded cruise terminal facilities on the Main

Channel. These developments have also included large-scale mitigation projects, such as the creation of shallow water habitat at the Pier 300/Sea Plane Lagoon area and Cabrillo Shallow Water Habitat area. The Harbor Department has also required construction and terminal designs that minimize potential impacts on the marine environment and implemented best management practices including dredged material management, sewage and storm drain reconfigurations, and on-terminal stormwater control systems.

1.3 Harbor Habitat

The marine habitat of Los Angeles Harbor varies in depth. Water depth is approximately -50 to -55 feet MLLW in the channels and basins, -30 to -40 feet MLLW in the slips, and as much as -70 to -80 feet MLLW in the area south of Pier 400 to the breakwater. The shoreline in most of the Port is constructed for active Port use and is therefore mostly riprap and sheetpile with overlying concrete or wooden wharf structures supported by concrete, steel, or timber piles. There are very few areas of sandy beach, intertidal flats, or saltwater marsh remaining in Los Angeles Harbor.

In addition to deep open water, Los Angeles Harbor supports shallow water areas, special aquatic sites as defined in 40 CFR Part 230, and other areas of high biological productivity. The CWA Section 404(b)(1) Guidelines define special aquatic sites as geographic areas, large or small, that possess special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values (40 CFR Part 230.40-45). Special aquatic sites are generally recognized as sites that significantly influence or positively contribute to the general overall environmental health or vitality of the entire ecosystem of a region and are subject to greater protection than other Waters of the United States.

Relatively shallow water areas (less than -20 feet MLLW) are found in two locations in the Outer Harbor: Cabrillo Beach and Pier 300/Sea Plane Lagoon. Shallow water habitat is considered generally more biologically valuable than deeper open water, as shallow water areas can support high-functioning habitat and can act as a nursery for fish and as foraging habitat for birds, including federally protected migratory species. The shoreline in the Port's shallow water areas is mostly riprap and beaches. The Pier 300/Sea Plane Lagoon Shallow

Water Habitat Area was created as mitigation for a Port fill and channel deepening development project in 1985. The Cabrillo Shallow Water Habitat Area was initially created in 1993 as a 136-acre site and has been expanded to 364.5 acres.

Three types of special aquatic sites are present in the Port: wetlands, vegetated shallows in the form of eelgrass beds, and mudflats. There are two salt marsh wetlands in the Port: the Anchorage Road Salt Marsh (0.25 acre) and the Salinas de San Pedro Salt Marsh (a 3.25-acre wetland constructed by the Harbor Department as mitigation for impacts associated with the construction of Berth 232). Eelgrass beds occur along Cabrillo Beach and in the Pier 300/Sea Plane Lagoon Shallow Water Habitat Area. There are also small patches of eelgrass in several other locations in the Port totaling less than 2.2 acres. Mudflats are present at Berth 78 along the Main Channel (0.175 acre) and at Salinas de San Pedro Salt Marsh (0.87 acre).

2 LOS ANGELES HARBOR BIOLOGICAL RESOURCES SURVEYS

Over the years, the City's Harbor Department has worked with the Port of Long Beach (POLB) and state and federal resource agencies to conduct periodic evaluations of conditions in Los Angeles and Long Beach Harbors, which serve to define existing conditions for habitat assessments and impact analyses associated with Harbor Department development projects. Since the periodic surveys were first conducted, there has been a measurable improvement in the abundance and diversity of biological communities and eelgrass and kelp cover within Harbor boundaries.

The most recent survey was conducted between 2013 and 2014, and results were published in a report entitled *Biological Surveys of Long Beach and Los Angeles Harbors*, prepared by MBC Applied Environmental Sciences (MBC) and Merkel & Associates and is incorporated herein by reference (MBC 2016). Text and tables have been extracted or recreated from the report and summarized in the following sections to provide a concise description of the habitat within Los Angeles Harbor.

2.1 Water Quality

Los Angeles Harbor water quality has been regularly monitored since the 1950s, with water quality reports showing poor conditions from the 1950s to the 1970s. Severe pollution was

reported in a number of Los Angeles Harbor basins, especially Consolidated Slip and Fish Harbor. For example, DO levels were too low to support life in many areas of the Inner Harbor with only highly stress-tolerant benthic species found in other areas. DO concentrations of less than 1 milligram per liter (mg/L) were measured in the West Basin and non-detectable levels in Fish Harbor in the early 1970s (HEP 1976). Such conditions were the result of discharges from terminals and ships, pollution loads from approximately 235 storm drain outfalls discharging directly to Los Angeles Harbor, and adverse changes to water circulation patterns.

Water quality began to improve in the 1970s with the passage of the CWA (33 United States Code [USC] Section 1251, et seq.) and implementation of Harbor Department programs that address both localized (terminal and ship) and storm drain discharges. Changes included implementing comprehensive stormwater management coordinated with city and regional authorities and imposing tariff provisions restricting discharges of pollutants by ocean-going vessels, implementing programs to address marinas and ancillary users of the harbors and remove contaminated sediments through Port dredging projects, and active participation in regional efforts to manage water and sediment quality. In the 1970s, DO concentrations in Los Angeles Harbor waters generally varied from 3.8 mg/L in the Inner Harbor to 5.2 mg/L in the Outer Harbor.[1] The most recent surveys for DO concentrations were conducted in summer 2013 and spring and winter 2014, where 16 separate stations throughout the harbor were sampled. These surveys found that Los Angeles Harbor-wide DO levels continue to improve.

Sampling results for DO concentrations for the harbor fluctuated by season and location. The average (all depth) DO concentrations at the sampling stations ranged from 6.06 to 10.81 mg/L during summer, 6.57 to 8.93 mg/L during the winter, and 4.60 to 9.42mg/L during the spring (MBC 2016).

To address remaining issues, and further improve water quality, the Harbor Department and POLB released the *Port of Los Angeles and Port of Long Beach Water Resources Action Plan* (WRAP; Port and POLB 2009), which includes 14 measures aimed at attaining the full suite

[1] Inner Harbor waters are consistent with the area of Constrained Harbor Habitat as defined in Exhibit A-2. Outer Harbor waters are waters other than those in the Inner Harbor.

of beneficial uses of Los Angeles Harbor waters and sediments by addressing the impacts of past, present, and future port operations, and preventing these operations from further degrading existing water and sediment quality. The WRAP will further facilitate the Harbor Department's efforts to improve Los Angeles Harbor water quality and support healthy biological communities.

2.2 Biological Communities

The Harbor Department has completed a number of biological surveys since the 1950s, both individually and more recently in conjunction with POLB. These surveys indicate that as Los Angeles Harbor water quality improved, biological communities followed suit. The 2013-2014 biological surveys showed the Los Angeles Harbor is home to a broad diversity of fish, invertebrates, and algal species. The 2013-2014 surveys collected 72 unique species of fish. The fish appeared generally healthy with no obvious abnormalities, disease, or external parasites. Differences in species composition, abundance, and distribution of pelagic fish between the Inner and Outer Harbor documented in a 1988 study have also diminished. The 2013-2014 surveys found that most pelagic species were distributed throughout the Los Angeles Harbor with no habitat associations or evident preference for certain areas.

Benthic biota overall have decreased in abundance of organisms since the 2000 survey from approximately 4,100 per square meter to about 1,860 per square meter in 2008 and 1,215 per square meter in 2013-2014. However, species diversity has increased. These changes indicate a shift in benthic communities as a result of improved water and sediment quality. The Inner Harbor has experienced an increase in abundance of pollution-sensitive benthic infauna since the 1950s, indicating improved water quality (MBC 2016). During the 2013-2014 surveys, 264 species of benthic infauna and larger macroinvertebrates were collected. The infaunal community was dominated by annelids, followed by mollusks and arthropods. Dominant macroalgal communities included giant kelp (*Macrocycstis*) and feather boa kelp (*Egregia*) in the Outer Harbor and brown algae (*Sargassum and Undaria*), green algae (*Ulva*), bulb seaweed (*Colpomenia*), and red algae (*Weeksia*) in the Inner Harbor. Results of the 2013–2014 macroalgae surveys were consistent with those from 2000 and 2008 in terms of species composition and percent cover. The diversity of algae in the present study was

similar to that recorded in 2000 and 2008, although more genera were recorded in the present study (26) than in the 2000 study (18) (MBC 2016).

2.2.1 Adult and Juvenile Fish

Multiple sampling methods were employed over several events to survey fish populations between 2013 and 2014. The sampling methods included the use of a lampara net, otter trawl, and beach seine. A total of 72 unique species of fish were collected in the survey (Tables 1, 2, and 3). Pelagic fish accounted for 97% of the total catch. Pelagic fish from lampara collections were dominated by five species (northern anchovy [*Engraulis mordax*], topsmelt [*Atherinops affinis*], California grunion [*Leuresthes tenuis*], Pacific mackerel [*Scomber japonicas*], and jacksmelt [*Atherinopsis californiensis*]), which accounted for 99% of the total catch, with northern anchovy alone comprising 97% of the total catch. All of these species are schooling fish that spend most of their lives in the Los Angeles Harbor environment. For otter trawl surveys, dominant species included northern anchovy, white croaker (*Genyonemus lineatus*), California lizardfish (*Synodus lucioceps*), and queenfish (*Seriphus politus*). Commercially and/or recreationally important species, including California halibut (*Paralichthys californica*) and barred sand bass (*Paralabrax nebulifer*) exhibited low abundance. California halibut were collected with otter trawl nets and ranked eighteenth in total abundance and sixteenth in total biomass for that sampling gear. Barred sand bass also were caught with trawls and ranked fifteenth in total abundance using that gear.

Based on observations, species richness was greater in summer (a mean of 37 species per sample station) than in spring (a mean of 33 species per station). Species richness was also greater in the Outer Harbor (40 species per station) than in the Inner Harbor (30 species per station), and slightly greater at shallow stations (36 species per station) than at deep stations (35 species per station) (MBC 2016).

Table 1

Total Number of Fish Species Caught by Beach Seine at Cabrillo Beach

Common Name	Species	Catch
Queenfish	*Seriphus politus*	736
Topsmelt	*Atherinops affinis*	718
Northern anchovy	*Engraulis mordax*	447
Dwarf perch	*Micrometrus minimus*	7
Kelp pipefish	*Syngnathus californiensis*	2
Barred sand bass	*Paralabrax nebulifer*	1
Giant kelpfish	*Heterostichus rostratus*	1
	Total	**1,912**

Note:
Recreated from Table 3-4 in MBC (2016)

Table 2

Total Abundance Fish Species Caught by Lampara Net

Common Name	Scientific Name	Day Catch	Night Catch	Total
Northern anchovy	*Engraulis mordax*	522,257	199,751	722,008
California grunion	*Leuresthes tenuis*	3,557	9,053	12,610
Pacific mackerel	*Scomber japonicus*	4,956	148	5,104
Topsmelt	*Atherinops affinis*	2,435	1,614	4,049
Jacksmelt	*Atherinopsis californiensis*	1,895	141	2,036
Queenfish	*Seriphus politus*	22	607	629
White croaker	*Genyonemus lineatus*	73	211	284
Pacific butterfish	*Peprilus simillimus*	140	58	198
Pacific sardine	*Sardinops sagax*	24	153	177
Jack mackerel	*Trachurus symmetricus*	62	53	115
California lizardfish	*Synodus lucioceps*	77	24	101
Shiner surfperch	*Cymatogaster aggregata*	0	44	44
Bat ray	*Myliobatis californica*	5	23	28
White surfperch	*Phanerodon furcatus*	5	15	20
Barred sand bass	*Paralabrax nebulifer*	1	11	12
Slough anchovy	*Anchoa delicatissima*	0	10	10
Specklefin midshipman	*Porichthys myriaster*	0	5	5
California halibut	*Paralichthys californicus*	2	2	4
Diamond turbot	*Pleuronichthys guttulatus*	1	3	4
Pacific barracuda	*Sphyraena argentea*	0	4	4
Kelp pipefish	*Syngnathus californiensis*	2	1	3
Round stingray	*Urobatis halleri*	1	2	3
California scorpionfish	*Scorpaena guttata*	1	1	2

Common Name	Scientific Name	Day Catch	Night Catch	Total
Cheekspot goby	*Ilypnus gilberti*	2	0	2
Fantail sole	*Xystreurys liolepis*	1	1	2
Giant kelpfish	*Heterostichus rostratus*	1	1	2
California skate	*Raja inornata*	0	1	1
Deepbody anchovy	*Anchoa compressa*	0	1	1
Hornyhead turbot	*Pleuronichthys verticalis*	1	0	1
Kelp bass	*Paralabrax clathratus*	0	1	1
Pile surfperch	*Damalichthys vacca*	0	1	1
Plainfin midshipman	*Porichthys notatus*	0	1	1
Shadow goby	*Quietula y-cauda*	0	1	1
Shovelnose guitarfish	*Rhinobatos productus*	0	1	1
Spotted turbot	*Pleuronichthys ritteri*	0	1	1
Total		**535,521**	**211,944**	**747,465**

Note:
Recreated from Table 3-2 in MBC (2016)

Table 3
Total Abundance of Fish Species Caught by Otter Trawl

Common Name	Scientific Name	No.
White croaker	*Genyonemus lineatus*	8,106
California lizardfish	*Synodus lucioceps*	4,780
Queenfish	*Seriphus politus*	1,298
Northern anchovy	*Engraulis mordax*	1,241
Speckled sanddab	*Citharichthys stigmaeus*	762
California tonguefish	*Symphurus atricaudus*	685
Staghorn sculpin	*Leptocottus armatus*	662
Longspine combfish	*Zaniolepis latipinnis*	337
Barred sand bass	*Paralabrax nebulifer*	309
Specklefin midshipman	*Porichthys myriaster*	282
California halibut	*Paralichthys californicus*	153
Fantail sole	*Xystreurys liolepis*	152
Hornyhead turbot	*Pleuronichthys verticalis*	110
Plainfin midshipman	*Porichthys notatus*	90
Spotted sand bass	*Paralabrax maculatofasciatus*	71
Bay goby	*Lepidogobius lepidus*	67
California skate	*Raja inornata*	62
Basketweave cusk-eel	*Ophidion scrippsae*	46
Vermillion rockfish	*Sebastes miniatus*	45
Yellowchin sculpin	*Icelinus quadriseriatus*	43
White surfperch	*Phanerodon furcatus*	35

Common Name	Scientific Name	No.
California scorpionfish	*Scorpaena guttata*	29
Pacific butterfish	*Peprilus simillimus*	29
Giant kelpfish	*Heterostichus rostratus*	28
Round stingray	*Urobatis halleri*	28
Spotted turbot	*Pleuronichthys ritteri*	24
Kelp pipefish	*Syngnathus californiensis*	22
Thornback ray	*Platyrhinoidis triseriata*	20
Shiner surfperch	*Cymatogaster aggregata*	17
Cheekspot goby	*Ilypnus gilberti*	14
Calico rockfish	*Sebastes dallii*	9
Bat ray	*Myliobatis californica*	8
Diamond turbot	*Pleuronichthys guttulatus*	7
Arrow goby	*Clevelandia ios*	6
Black surfperch	*Embiotoca jacksoni*	6
Kelp bass	*Paralabrax clathratus*	5
Onespot fringehead	*Neoclinus uninotatus*	5
Brown rockfish	*Sebastes auriculatus*	4
Cabezon	*Scorpaenichthys marmoratus*	4
Goby, juvenile	*Gobidae*	4
Southern spearnose poacher	*Agonopsis sterletus*	4
Yellowfin goby	*Acanthogobius flavimanus*	4
California butterfly ray	*Gymnura marmorata*	3
Gopher rockfish	*Sebastes carnatus*	3
Shovelnose guitarfish	*Rhinobatos productus*	3
Spotted cusk-eel	*Chilara taylori*	3
Barred pipefish	*Syngnathus auliscus*	2
Chameleon goby	*Tridentiger trigonocephalus*	2
English sole	*Parophrys vetulus*	2
Giant sea bass	*Stereolepis gigas*	2
Leopard shark	*Triakis semifasciata*	2
Slough anchovy	*Anchoa delicatissima*	2
Bay blenny	*Hypsoblennius gentilis*	1
Blackeye goby	*Rhinogobiops nicholsii*	1
Bocaccio	*Sebastes paucispinis*	1
California corbina	*Menticirrhus undulatus*	1
Pile surfperch	*Damalichthys vacca*	1
Rockfish, juvenile	*Scorpaenidae*	1
Sculpin, juvenile	*Cottidae*	1
Stripefin ronquil	*Rathbunella alleni*	1
		Total = 19,645 individuals

Note: Recreated from Table 3-3 in MBC (2016)

2.2.2 Ichthyoplankton

A total of 79 larval fish taxa were observed in the three 2013-2014 surveys (compared to 71 in 2008 and 44 in 2000); the most abundant taxa being a complex of three goby species, which varied in densities during the three surveys. Larvae of northern anchovy and combtooth blennies (*Hypsoblennius spp.*) were also common during all three surveys. The 2013-2014 surveys found that egg and larval densities varied among locations and habitats. Larval fish abundance was consistently higher near the seabed than the surface. The highest abundances occurred in the Outer Harbor and in the Main Channel entrance. Plankton abundance and density showed seasonal patterns, with winter surveys indicating higher densities than spring and summer surveys.

2.2.3 Benthic Communities

Benthic surveys were conducted in summer (August 28 and 29, 2013) and spring (May 19 and 20, 2014). The surveys documented 261 total species of benthic infauna, including microinvertebrates and macroinvertebrates, were collected during the summer 2013 survey and 238 species during the spring 2014 survey (Tables 4 and 5, respectively). Species composition was similar between summer and spring surveys and was similar throughout the harbor. However, species abundance varied and was slightly higher during the summer. Species abundance is influenced by water depth with shallow water habitats having nearly 40% greater abundance than deep-water habitats.

The recent survey also attempted to quantify the health of the benthic environment by employing a tool that measures the health of the environment. The Benthic Response Index (BRI) is a tool used to interpret the abundance of pollution tolerance of the species occurring in a sample. The BRI sets thresholds that can be used to distinguish "healthy" versus "unhealthy" benthic communities in terms of biodiversity, community function, or defaunation (Smith et al. 2003). The 2013-2014 surveys were the first study to implement the BRI analysis in the harbor area. The BRI used a scale of four categories (Reference [healthiest], Low Disturbance, Moderate Disturbance, and High Disturbance [least healthiest]). The BRI values determined during the 2013-2014 surveys for communities at all but two locations in the harbor area were in the "Reference" category for Southern California marine bays and harbors, indicating that the communities were healthy. Two

locations (Consolidated Slip and Fish Harbor) fell into the "Low Disturbance" category. At most stations, BRI values were similar between seasons. The BRI values determined in 2013–2014 reflect a general improvement in benthic conditions in the Port compared to previous region-wide studies (MBC 2016).

Cluster analysis performed by MBC resulted in patterns similar to those of abundance, species richness, and BRI (MBC 2016). The benthic communities varied between the Inner and Outer harbor areas, between shallow and deep stations, and between shallow open-water and shallow basins and time of year (summer versus spring). Water circulation within the harbor appears to be the largest influence on benthic communities. Results from the Inner Harbor sample stations rated lower for abundance, species richness, biomass, and diversity compared to Outer Harbor stations. The Inner Harbor stations were generally located in dead-end areas or adjacent to slips. At some of these locations, dissolved oxygen at the bottom was below 5 mg/L during the summer survey. Among the Inner Harbor stations, Fish Harbor and Consolidated Slip support community types that tolerate contaminated sediments. The created shallow-water habitats in the Outer Harbor had benthic communities with high abundance and moderate to high diversity; however, BRI was higher than at the other open-water areas of the Outer Harbor. One anomaly was noted with one Outer Harbor sample station (Station LA 11, south of the Main Channel) which differed from all other Outer Harbor stations, with low abundance and species richness; in spring the community at that location resembled that at the Los Angeles Turning Basin.

Results of the current cluster group analysis is consistent with past analysis preformed in the harbor area (MBC 2016). In all of these studies, the most consistent differences in the harbor were between communities in the Inner Harbor and those in the Outer Harbor as well as in the Outer Harbor between shallow water and deep water. Water quality improvements within the harbor since the 1950s are suspected to have resulted in increases to species richness and diversity. Species sensitive to pollution have become more abundant. In a 1954 survey, only one pollution-sensitive species was among the ten most abundant. The present survey discovered six pollution-sensitive species among the ten most abundant (MBC 2016).

Table 4
Total Abundance of Dominant Benthic Infauna Species in the Summer (2013)

Phylum	Species	Overall Abundance	Percent of Total	Cumulative Percentage
AR	*Amphideutopus oculatus*	378	9.0	9
MO	*Theora lubrica*	344	8.2	17
AN	*Cossura sp.*	273	6.5	24
AR	*Sinocorophium heteroceratum*	242	5.8	29
AN	*Euchone limnicola*	149	3.5	33
AN	*Aphelochaeta monilaris*	116	2.8	36
AR	*Neotrypaea sp.*	113	2.7	38
AN	*Pista wui*	102	2.4	41
AN	*Cossura candida*	100	2.4	43
MO	*Tellina modesta*	92	2.2	45
AR	*Scleroplax granulata*	68	1.6	47
AN	*Leitoscoloplos pugettensis*	61	1.5	48
AN	*Sigambra setosa*	56	1.3	50
AN	*Mediomastus ambiseta*	55	1.3	51
AN	*Mediomastus californiensis*	51	1.2	52
AN	*Streblosoma sp.*	48	1.1	53
MO	*Rictaxis punctocaelatus*	46	1.1	55
AN	*Streblosoma crassibranchia*	44	1.0	56
MO	*Philine sp.*	43	1.0	57
AN	*Monticellina cryptica*	42	1.0	58
AN	*Marphysa disjuncta*	41	1.0	59
AR	*Heterophoxus ellisi*	41	1.0	60
MO	*Volvulella panamica*	41	1.0	61
NE	*Tubulanus polymorphus*	41	1.0	62

Notes:
AN = Annelida
AR = Arthropoda
MO = Mollusca
NE = Nemertea
"Most abundant" species that each constituted at least 1% of the total abundance
Recreated from Table 5-3 in MBC (2016)

Table 5

Total Abundance of Dominant Benthic Infauna Species in the Spring (2014)

Phylum	Species	Overall Abundance	Percent of Total	Cumulative Percentage
AN	*Paramage scutata*	275	7.7	8
AN	*Cossura sp.*	226	6.3	14
AN	*Euchone limnicola*	214	6.0	20
MO	*Theora lubrica*	150	4.2	24
AR	*Scleroplax granulata*	148	4.1	28
AR	*Sinocorophium heteroceratum*	135	3.8	32
AR	*Amphideutopus oculatus*	128	3.6	36
AN	*Aphelochaeta monilaris*	115	3.2	39
AR	*Neotrypaea sp.*	90	2.5	41
AR	*Leptochelia dubia Cmplx*	78	2.2	44
AN	*Pista wui*	73	2.0	46
AN	*Laonice cirrata*	64	1.8	48
AN	*Cossura candida*	61	1.7	49
AR	*Pinnixa sp.*	52	1.5	51
AR	*Nebalia daytoni*	51	1.4	52
AR	*Euphilomedes carcharodonta*	50	1.4	54
AR	*Photis brevipes*	50	1.4	55
AN	*Aphelochaeta glandaria Cmplx*	49	1.4	56
AR	*Pinnixa franciscana*	49	1.4	58
AN	*Pseudopolydora paucibranchiata*	45	1.3	59
AN	*Streblosoma crassibranchia*	43	1.2	60
AN	*Mediomastus ambiseta*	40	1.1	61
AR	*Eochelidium sp.*	40	1.1	62
AN	*Streblosoma sp.*	35	1.0	63
AN	*Glycera americana*	34	1.0	64

Notes:
AN = Annelida
AR = Arthropoda
MO = Mollusca
NE = Nemertea
"Most abundant" at each constituted at least 1% of the total abundance
Recreated from Table 5-4 in MBC (2016)

2.2.4 Kelp and Macroalgae

The 2013-2014 surveys found that the majority of kelp and macroalgae surface canopy is associated with the outer breakwaters and with riprap structures in the Outer Harbor and in

locations facing the Los Angeles Harbor entrances. Kelp surface canopies vary throughout the season. During the spring when kelp is at its maximum extent, canopies were documented by MBC at:

- The west, south, and east faces of Pier 400
- The submerged dike of the Pier 400 Submerged Storage Site
- The eastern segment of the submerged dike of the Cabrillo Shallow Water Habitat
- Both faces of the San Pedro breakwater
- The south and east faces of Reservation Point (Station T-16 on the east side of the Main Channel), including the jetty protecting Fish Harbor
- The south and east faces of Berths 44-50 and the adjacent pier on the west side of the Los Angeles Main Channel
- The Cabrillo Marina jetty

Kelp within the harbor area was not only monitored by MBC, but it was also monitored by The Central Region Kelp Survey Consortium (CRKSC) on a quarterly basis using photo analysis. Kelp within the Port and POLB is considered a single bed by the CRKSC. This bed has fluctuated in size from a high of 120 acres in 2006 and 2012 to a low of 29 acres in 2007 (MBC 2016). Total coverage of kelp canopy in the Port in the 2013-2014 surveys was 132 acres in the spring and 46 acres in the summer (MBC 2016). The ranking of kelp canopy in the harbor has varied compared with the 25 other regional kelp beds recognized by the CRKSC between Ventura and Newport Beach. The highest kelp coverage in 2006 only ranked the bed eight out of 26, contributing 6% total canopy coverage in the region, while the bed ranked second out of 26 in 2007 contributed 9% total canopy coverage (MBC 2016). In 2013, the kelp coverage ranged seventh and comprised 6% of the total regional kelp canopy coverage.

Results of the 2013–2014 macroalgae surveys were consistent with those from 2000 and 2008 in terms of species composition, percent cover, and the distinction between Inner and Outer Harbor stations. The diversity of algae in the present study was similar to that recorded in 2000 and 2008, although more genera were recorded in the present study (26) than in the 2000 study (18). Furthermore, the invasive algae taxa *Undaria, S. muticum*, and *S. horneri* were among the top ten most abundant species in summer in the present study, which was not the case in the earlier studies (MBC 2016).

2.2.5 Riprap Biota

Riprap habitat within the harbor area includes the boulders of the outer breakwaters, armor rock, concrete panels that line much of the shoreline within the Port, and pier and wharf piles. Riprap provides hard-substrate habitat similar to that found on rocky coasts and reefs. The habitat extends from the splash zone, which may only occasionally be submerged on the highest tides, through the intertidal zone, where the community is submerged and exposed twice per day, to the subtidal zone, where the biota is always submerged. Depending on location, riprap communities may be exposed to seasonal storm surge and high waves, ship and boat wakes, and muted tidal changes year round.

Riprap biota composed of invertebrates and algae attached to the hard substrate were surveyed at eight stations in summer 2013 and spring 2014 at three zones: upper intertidal, mid-lower intertidal, and subtidal (MBC 2016). Sampling was performed using scraped quadrats consistent with previous surveys and also using a rapid assessment method using photo and video. A total of 558 species were observed in the scraped quadrats within the Port. Species abundance was greater in summer than in spring and in the mid-lower intertidal compared to the upper intertidal and subtidal (MBC 2016). Species abundance was higher in the Outer Harbor than in the Inner Harbor, but in both Inner and Outer Harbor stations mean species abundances were greater than in the 2000 and 2008 surveys. Barnacles, caprellid shrimp, and encrusting organisms are the most abundant types of organisms quantified in the scraped quadrats (MBC 2016). A notable change from previous studies is the decrease in abundance of bay mussels; a dominant species in the 2000 and 2008 surveys but only a minor component of the riprap community in the 2013-2014 surveys.

2.2.6 Eelgrass

The 2013-2014 surveys found that eelgrass communities have vastly expanded both in density and geographic extent, with multiple instances in which eelgrass is beginning to colonize suitable habitat within the harbor area since the previous surveys (2000 and 2008). Eelgrass was documented in eight locations throughout the harbor. Of those locations, two (Inner Cabrillo Beach and the Pier 300/Sea Plane Lagoon) represent the primary locations where eelgrass is found during both the spring and summer surveys (Table 6). These areas

represent 96.3% of the total eelgrass coverage in the harbor area during the summer survey and 96.8% of the total coverage area during the spring survey (MBC 2016).

The density of eelgrass shoots (turions) may be used as an estimate of the health of an eelgrass bed. Turion densities at nearly all sites were relatively stable during both of the 2013-2014 sampling periods. All densities were within ranges generally considered to be low to moderate density for Southern California eelgrass beds, which typically range from approximately 100 to 400 turions per square meter. In the largest beds (Cabrillo Beach and Pier 300/Sea Plane Lagoon), however, turion density was higher in spring than in summer. The greatest difference in turion density between seasons was observed at Cabrillo Beach, where the spring mean density (280 shoots per square meter [m^2]) was nearly 2.7 times greater than during the summer (104 shoots/m^2); however, the variability in the spring density values was very high (standard deviation is 166 shoots per m^2) (MBC 2016).

Table 6
Distribution of Eelgrass within the Port by Survey Season

Location	Summer		Spring	
	Acres	% of Total	Acres	% of Total
Pier 300/Sea Plane Lagoon[1]	38.741	64.82%	45.909	68.74%
North Cabrillo Beach	9.924	16.61%	10.608	15.88%
South Cabrillo Beach	8.886	14.87%	8.121	12.16%
East Basin Yacht Marinas	1.805	3.01%	1.635	2.45%
Cabrillo Marina	0.182	0.30%	0.274	0.41%
Fish Harbor	0.123	0.20%	0.134	0.20%
Consolidated Slip	0.035	0.06%	0.012	0.02%
Turning Basin	0.068	0.11%	0.090	0.13%
Total	**59.764**	**100.00%**	**66.783**	**100.00%**

Notes:
1 Includes the constructed Pier 300/Sea Plane Lagoon Shallow Water Habitat
Recreated from Table 8-1 in MBC (2016)

2.2.7 Birds

The Port provides valuable habitat for foraging, resting, and breeding by numerous bird species. A total of 96 species representing 30 families were observed during the 2013-14 study (MBC 2016), the same as in the 2008 survey. Nine of the ten most abundant species

belong to three guilds associated with water: gulls, aerial fish foragers, and waterfowl. Of these, gulls represented 38.2% of all observed birds (MBC 2016).

Species diversity and abundance varied seasonally. Of the 96 observed species, only 29 occurred for 10 or more surveys months, indicating year-round residency. Thirty species were only observed during 1 or 2 survey months indicating rare occurrences. The remaining species exhibited distinct seasonal patterns. The majority of the species were observed among two distinct habitat types during the 2013-2014 surveys. They include open water, with 37.9% of all observations, and riprap, with 21.7% of all observations; these are also the most common habitat types in the harbor (MBC 2016). The most abundant guilds and species are shown in Table 7.

Several special status bird species were commonly observed during the 2013-2014 surveys (Table 8), including large numbers of the recently de-listed California brown pelican (*Pelecanus occidentalis)*, which where the fourth most abundant species and use the outer breakwaters as resting habitat. The endangered California least tern (*Sterna antillarum browni*) successfully nests at a designated site on Pier 400, and recently de-listed Peregrine falcon (*Falco peregrinus*) historically nested on bridges within Los Angeles Harbor; however, no nesting was observed during the 2013-2014 surveys, which was assumed to be due to the active construction associated with construction on the bridges. Non-listed special status species observed during the 2013-2104 surveys included black-crowned night heron (*Nycticorax nycticorax*), great blue heron (*Ardea herodias*), black oystercatcher (*Haematopus bachmani*), black skimmer (*Rynchops niger*), caspian tern (*Sterna caspia*), elegant tern (*Sterna elegans*), and double-crested cormorant (*Phalacrocorax auritus*). Several of those species, including the cormorant, herons, oystercatcher, and terns, were observed nesting at the Port during the 2013-2014 surveys.

Table 7
Percent Composition of Birds by Guild and Most Numerous Species

Guild	Percent	Most Abundant Species	% Total	Rank of Ten Most Abundant
Aerial fish foragers	21.2	Elegant turn	10.6	3
		Brown pelican	9.6	4
		Other	1.0	
Gulls	38.2	Western gull	23.6	1
		Heermann's gull	6.4	5
		California gull	5.9	6
		Other	1.4	
Large shorebirds	0.5	Black oystercatcher	0.3	
		Other	0.2	
Raptors	0.04	Osprey	0.02	
		Other	0.02	
Small shorebirds	0.9	Black-bellied plover	0.4	
		Other	0.5	
Upland birds	6.6	Rock dove/pigeon	5.4	7
		Other	1.2	
Waterfowl	31.1	Western grebe	14.5	2
		Brandt's cormorant	5.2	8
		Double-crested cormorant	5.1	9
		Surf scooter	3.3	10
		Other	3.0	
Wading/marsh birds	1.5	Great blue heron	0.8	
		Other	0.3	
Total	**100.0**	**Top ten ranked species**	**89.6**	

Note:
Recreated from Appendix I-5 in MBC (2016)

Table 8
Special Status Bird Species

Common Name (Locations of Concern)	Scientific Name	State Status	Federal Status	Other[1]	Nesting at Ports in 2007-2008
Brown pelican (nesting colony and communal roosts)	*Pelecanus occidentalis*	Delisted	Delisted	DFW:FP	No
Double-crested cormorant (nesting)	*Phalacrocorax auritus*			DFW:WL	Yes
Great blue heron (nesting)	*Ardea herodias*			DFW:SA	Yes
Black-crowned night-heron (nesting)	*Nycticorax*			DFW:SA	Yes
Peregrine falcon (nesting)	*Falco peregrinus*	Delisted	Delisted	DFW:FP, USFWS:BCC	Yes
Black oystercatcher (nesting)	*Haematopus bachmani*			USFWS:BCC	Yes
Caspian tern (nesting colony)	*Sterna caspia*			USFWS:BCC	Yes
Elegant tern (nesting colony)	*Sterna elegans*			DFW:WL	Yes
Least tern (nesting colony)	*Sternula antillarum browni*	Endangered	Endangered	DFW:FP	Yes
Black skimmer (nesting colony)	*Rynchops niger*			DFW:WL	No
Long-billed curlew (nesting)	*Numenius americanus*			DFW:SSC, USFWS:BCC	Unknown
Osprey (nesting)	*Pandion haliaetus*			DFW:WL	Yes
Scripps's murrelet (nesting)	*Synthliboramphus scrippsi*	Endangered	Candidate	USFWS:BCC	No
Brant (wintering, staging)	*Branta bernicla*			DWF:SCC	No
Common loon (nesting)	*Gavia immer*			DFW:SSC	No

Notes:
1 DFW:SA = Special Animal tracked by California Department of Fish and Wildlife (CDFW) but no protective status
DFW:FP = CDFW Fully Protected
DFW:SSC = CDFW Species of Special Concern
DFW:WL = CDFW Watch List
USFWS:BCC = U.S. Fish and Wildlife Service Birds of Conservation Concern
Recreated from Appendix I-6 in MBC (2016)

2.2.8 Marine Mammals

Both pinnipeds (seals and sea lions) and cetaceans (whales, dolphins, and porpoises) use the waters of the harbor area primarily to rest and forage. Many of these species acquire a great

deal of opportunistic food at fish docks and the bait barges located within the harbor. Haul out and resting areas for pinnipeds include docks, boats, and buoys (MBC 2016).

A total of 869 marine mammals belonging to four species were observed during the 2013-2014 surveys. California sea lion (*Zalophus californianus californianus*) were most common and accounted for 67.5% of total marine mammal observations. This species was seen year-round throughout the Port and was typically found resting on buoys, docks, riprap shoreline, and bulbous bows of docked cargo ships. California sea lions were also frequently observed foraging near bait barges and fish markets and in the wakes of fishing boats entering and exiting the harbor (MBC 2016). Additional observed species are shown in Table 9.

Table 9
Observed Marine Mammals

Species	Total Observations	Percent of Total
California sea lion (*Zalophus c. californianus*)	587	67.5
Harbor seal (*Phoca vitulina*)	223	25.7
Bottlenose dolphin (*Tursiops spp.*)	18	2.1
Common dolphin (*Delphinus spp.*)	40	4.6
Unidentified dolphin	1	0.1

Note:
Recreated from Table 10-1 in MBC (2016)

2.2.9 Non-native Species

The 2013-2014 surveys document 27 non-native (i.e., "introduced") species, 95 cryptogenic (not demonstrably native or introduced) species, and 12 unresolved (could not be identified beyond the genus level) species. In general, the number of introduced species documented for the past three harbor-wide studies has remained fairly constant. The exception is infauna sampling in 2000, which recorded 24 non-native species compared to nine in 2008 and eight during the present study. The overall number of introduced and cryptogenic species identified are similar (27) with the 2008 (19) and 2000 (25) surveys (MEC 2002; SAIC 2008; MBC 2016).

The Asian clam (*Theora lubrica*) occurred at all but one of the stations and were one of the most abundant benthic species overall. The species was also widespread and abundant during the previous two harbor-wide surveys. In 2008, it contributed 10% to total infaunal abundance (SAIC 2010). In 2000, Asian clam were the fourth most abundant infauna species (MEC 2002). The introduced amphipod *Sinocorophium heteroceratum* was also widespread and abundant in previous harbor-wide studies (MEC 2002; SAIC 2010). Despite occurring at eight stations during the present survey, New Zealand mudsnail (*Philine auriformis*) were not abundant, which is consistent with results from the 2000 and 2008 studies.

The greatest difference in percent contribution by non-native species among the previous and present studies was found during the epifauna sampling. In both 2000 and 2008, non-native species accounted for 1.6% of the epibenthic species reported (MEC 2002; SAIC 2010). In the present study, 7.3% of the species reported (eight species) were non-native. Six of those species (bay mussel, Pacific oyster [*Crassostrea gigas*], three tunicates [including two species of *Styela*], and a bryozoan *Zoobotryon*) are hard-substrate associated species that are not typically collected during epibenthic surveys. Although these species were not reported as part of the epibenthic community during the 2008 or 2000 harbor-wide studies, these are not new introductions but were the result of collecting debris that supported these species. With the exception of one of the tunicates and the bryozoan, both of which are common in Southern California harbors, all species were recorded in previous baseline studies.

The riprap sampling effort in the present study reported 18 non-native species, 3.2% of the total number of species. The amphipod *Aoroides secundus*, which was reported at all eight riprap stations, was reported at one station during the 2000 survey and at two stations during the 2008 survey (MEC 2002; SAIC 2010; MBC 2016). The encrusting bryozoan *Watersipora arcuata*, reported at seven riprap stations during the present study, was not reported in the two previous harbor-wide surveys. While the total number of introduced species reported in the present study exceeds those reported in the riprap surveys conducted in 2000 and 2008 (16 and 12, respectively), the percent contribution by non-native species declined from 6.0% in 2000 to 3.6% in 2008 to 3.2% in 2013–2014 (MEC 2002; SAIC 2010; MBC 2016).

Two introduced fish species were taken during otter trawl sampling. Four yellowfin goby (*Acanthogobius flavimanus*) were collected in a single otter trawl in Fish Harbor during the

present study. In 2008, 53 individuals were taken, and in 2000, 21 individuals were taken (MEC 2002; SAIC 2010). Yellowfin goby, a native of Asia, were first reported in California in 1960. One individual chameleon goby (*Tridentiger trigonocephalus*) was reported at Fish Harbor during the present study. One individual was taken in trawl sampling at the Pier 300/Sea Plane Lagoon Shallow Water Habitat Area in 2000, but chameleon goby were not reported during the 2008 survey (MEC 2002; SAIC 2010). Chameleon goby were first reported in California in 1960 (MBC 2016)

2.3 Essential Fish Habitat

Essential Fish Habitat (EFH) is managed under the Magnuson-Stevens Fishery Conservation and Management Act of 1976 (Magnuson-Stevens Act) and seeks to protect the waters and substrate necessary to support federally managed fish species life history functions. The Magnuson-Stevens Act also establishes federal jurisdiction for fisheries management within the U.S. Exclusive Economic Zone, and the National Marine Fisheries Service (NMFS) oversees the development of Fishery Management Plans (FMPs) and protection of federally managed species. Los Angeles Harbor is defined as an estuary under the Pacific Coast Groundfish FMP and includes marine waters of sufficient depths and temperatures to also support species covered by the Coastal Pelagic Species FMP. Therefore, the entire Los Angeles Harbor is designated as EFH under the two FMPs. Of the 94 species federally managed under these FMPs, 19 are found within Los Angeles Harbor, but only two species (northern anchovy and Pacific sardine) are present in significant numbers (Table 10). In the 2013-2014 surveys, northern anchovy were the most abundant species in both the Inner and Outer Harbor areas and represented 66% of total abundance and 97% of total biomass in lampara surveys; Pacific mackerel were much less abundant (0.7% and 24%, respectively). Both species support a commercial bait fishery in the Outer Harbor.

Table 10
Federally Managed Species in Los Angeles Harbor

Common Name	Species	Potential Essential Fish Habitat in Study Area	Abundance
Pelagic Species (Coastal Pelagics FMP)			
Northern anchovy	*Engraulis mordax*	Open water throughout.	Abundant throughout Los Angeles Harbor in 2008, 2013-2014.[1, 5,6]
Pacific sardine	*Sardinops sagax*	Open water throughout.	Abundant throughout Los Angeles Harbor in 2008, 2013-2014.[1, 5,6]
Pacific (chub) mackerel	*Scomber japonicus*	Open water, primarily in Outer Harbor; juveniles off sandy beaches and around kelp beds.	Only one location in 2008. Abundant in 2013-2014.[1, 5,6]
Jack mackerel	*Trachurus symmetricus*	Near breakwater and Inner Harbor. Young fish over shallow rocky banks. Young juveniles sometimes school under kelp. Older fish typically further offshore.	Common in 2008, 2013-2014.[1, 5,6]
Demersal (Bottom) Species (Pacific Groundfish FMP)			
English sole	*Parophrys vetulus*	On bottom throughout. Benthic dwelling on sand or silt substrate.	24 collected in Outer Harbor in 2008. Uncommon in 2013-2014.[5,6]
Pacific sanddab	*Citharichthys sordidus*	Primarily Outer Harbor. Benthic on sand or coarser substrate.	Common in Outer Harbor in 2008. None collected in 2013-2014.[5,6]
Leopard shark	*Triakis semifasciata*	Primarily in Outer Harbor. Over sandy areas near eelgrass, kelp, or jetty areas.	Rare. None in 2008; one collected in 2013-2014.[5,6]
Black rockfish	*Sebastes melanops*	Primarily Cabrillo Shallow Water Habitat Area. Along breakwater and deep piers and piles. Associated with kelp, piles, eelgrass, and high-relief rock.	Rare. Four collected in deep Inner Harbor waters in 2001; none in 2008 or 2013-2014.[5,6]
California scorpionfish	*Scorpaena guttata*	Rock dikes and breakwaters.	Common on rock dikes and breakwaters, also on soft bottom at night.[1–6]
Grass rockfish	*Sebastes rastrelliger*	Along breakwater and in eelgrass off beach areas. Associated with kelp, eelgrass, and jetty rocks.	Rare. Three collected in 2001; none in 2008 or 2013-2014.[5,6]

Common Name	Species	Potential Essential Fish Habitat in Study Area	Abundance
Vermilion rockfish	*Sebastes miniatus*	Primarily along breakwater. Typically near bottom and associated with kelp, along drop offs, and over hard bottom.	Common more recently: 20 collected in 2008.[5]
Cabezon	*Scorpaenichthys marmoratus*	Primarily shallow waters, along breakwater and eelgrass areas. Benthic and use a variety of substrates including kelp beds, jetties, rocky bottoms, and occasionally eelgrass beds and sandy bottoms.	Rare; shallow water.[1] None collected in 2008; two collected in 2013-2014.[5,6]
Lingcod	*Ophiodon elongatus*	Primarily along breakwater and especially near Angels Gate. Typically on or near bottom over soft substrate near current-swept reefs.	Rare; shallow water.[1] None collected in 2008 or 2013-2014.[5,6]
Bocaccio	*Sebastes paucispinis*	Typically found in deeper water near hard substrate, kelp, and algae.	Uncommon; juveniles in kelp around breakwater. None in 2013-2014.[2,6]
Kelp rockfish	*Sebastes atrovirens*	Found in association with kelp along the breakwaters.	Rare; in kelp along breakwater. None in 2013-2014.[2,6]
Olive rockfish	*Sebastes serranoides*	Found in association with kelp along the breakwaters.	Common to uncommon; juveniles in kelp around breakwater. None collected in 2013-2014.[2,6]
Calico rockfish	*Sebastes dalli*	Typically found in deeper water near hard substrate, kelp, and algae.	Uncommon; one collected in Long Beach Harbor[4], 98 collected on Los Angeles Harbor in 2013-2014.[6]

Notes:
Potential habitat use from McCain et al. 2005. Species occurrence in Los Angeles and/or Long Beach Harbor recorded from MEC Analytical Systems, SAIC, and MBC studies.

Abundant: among ten most abundant species collected.
Common: not one of the ten most abundant, but at least 100 individuals collected.
Uncommon: between 10 and 100 individuals collected.
Rare: less than ten individuals collected.
Pelagic and benthic sampling employed in the 2000 surveys (MEC 2002) did not sample rocky breakwater and kelp habitat that could potentially be occupied by some of the species.

FMP = Fisheries Management Plan

Sources: 1 MEC (2002), 2 MEC (1999), 3 MEC (1988), 4 SAIC and MEC (1997), 5 SAIC (2010), 6 MBC (2016)

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EXHIBIT G

OTHER DOCUMENTATION, PERMITS, AMENDMENTS, OR REVISIONS

G-1: BEI Modification Process

G-2: Pier 400 Submerged Storage Site

G-3: Additional Mitigation Sites Constructed per the Outer Harbor Agreement

BANK ENABLING INSTRUMENT MODIFICATION PROCESS

PORT OF LOS ANGELES
HARBOR HABITAT MITIGATION BANK

The modification procedure commences when Bank Sponsor submits a written request for modification to the IRT. Modifications of this BEI must follow the procedure outlined in Section I and 33 CFR Part 332.8(g)(1), unless the District Engineer determines that the streamlined review process described in Section II and 33 CFR Part 332.8(g)(2) is warranted.

Section I: Regular Modification & Review Procedure

A. Modification Procedures for Modifying the Terms of the BEI

1. Supporting Documents

   The modification request shall be accompanied by the appropriate documentation.

2. Review Process

   i. Bank Sponsor may elect to request a preliminary review and consultation of a draft modification request, which is to include information, as applicable, identified in the checklist for "Draft Prospectus for Mitigation Banks" found at the time of the modification request at USACE South Pacific Division website, currently at www.spd.usace.army.mil/Portals/13/docs/regulatory/banking/checklist.pdf. Said checklist, which may be amended from time to time to reflect the most current version of the checklist, is incorporated herein by reference as part of this agreement. In this case, the USACE will provide copies of the draft request and appropriate documentation to the IRT and all comments will be provided to Bank Sponsor within 30 days.

   ii. Within 30 days of receipt of Bank Sponsor's formal modification request, the USACE will notify Bank Sponsor whether the modification request is complete.

   iii. Within 30 days of receipt of a complete modification request, the USACE will provide public notice of the request that summarizes the supporting documentation provided by Bank Sponsor, and make the supporting documentation available to the public upon request. The comment period will be 30 days, unless otherwise determined and justified by the USACE. The USACE and IRT members may also provide comments to the Bank Sponsor at this time.

The USACE will provide copies of all comments to IRT members and Bank Sponsor within 15 days of the close of the public comment period.

3. Amendment

   i. Bank Sponsor will submit a draft amendment of the BEI and associated Exhibits to the USACE for a completeness review.

   ii. The USACE will notify Bank Sponsor within 30 days of receipt of the amendment whether it is complete or needs additional information.

   iv. Upon notification from the USACE that the amendment is complete, Bank Sponsor will provide copies of the amendment for the USACE to distribute to the other members of the IRT for a 30-day comment period. This comment period begins 5 days after the copies of the amendment are distributed. Following the comment period, the USACE will discuss any comments with the appropriate agencies and Bank Sponsor to seek consensus on resolution of any issues, to the extent practicable.

   v. Within 90 days of receipt of the complete amendment, the IRT will indicate to Bank Sponsor whether the amendment is generally acceptable and what changes, if any, are needed. Bank Sponsor will submit a final amendment to the IRT for approval, with supporting documentation that explains how the final amendment addresses the IRT comments.

   vi. Within 30 days of receipt of the final amendment, the USACE will notify the IRT whether it intends to approve the amendment. If no IRT members object by initiating the dispute resolution process within 45 days of receipt of the final amendment, the USACE will notify Bank Sponsor of its final decision, and if approved, arrange for signing by the Parties.

   vii. Upon execution of the final amendment by the Parties, the modification shall take effect.

Section II: Streamlined Modification Review Procedure

Pursuant to 33 CFR Part 332.8(g)(2), a streamlined modification review procedure for modifying the terms of the BEI may be used for: changes reflecting adaptive management of a Bank Site, Credit Releases, changes in Credit Releases and Credit Release schedules, and changes that the IRT determines to be not significant. In this event, the USACE will distribute to the other Parties a proposed draft amendment.

IRT members and Bank Sponsor have 30 days to notify the USACE if they have concerns with the proposed amendment. If IRT members or Bank Sponsor notify the USACE of such concerns, the USACE will attempt to resolve those concerns. The USACE will notify the other IRT members and Bank Sponsor of his/her intent

regarding the proposed amendment within 60 days of providing the notice to the IRT members. If no IRT member objects, by initiating the dispute resolution process at 33 CFR Part 332.8(e) within 15 days of receipt of the notification, the USACE will notify the Bank Sponsor of its final decision and, if approved, arrange for signing by the Parties. Upon execution of the final amendment by the Parties, the amendment shall take effect.

FILE COPY

Agrt. No. E6082

April 25, 2002

425 S. Palos Verdes Street

Post Office Box 151

San Pedro, CA 90733-0151

Tel/TDD 310 SEA-PORT

www.portoflosangeles.org

SUBJECT: INTERAGENCY AGREEMENT – PORT OF LOS ANGELES
PIER 400 SUBMERGED STORAGE SITE

This agreement addresses certain biological mitigation responsibilities regarding the proposed Pier 400 Submerged Storage Site in outer Los Angeles Harbor.

The Deep Draft Navigation Improvement Project EIS/EIR (1992), and the Port of Los Angeles Channel Deepening Project Supplemental EIS/EIR (2000), addressed the need to deepen the main channels of the Port of Los Angeles to provide adequate draft for the existing and future world fleet. Disposal of clean dredge material, previously to be disposed at an approved ocean disposal site, is now being proposed for disposal at a submerged storage site, as depicted in Attachment 1. The proposed site would hold excess dredge material originally proposed for disposal at LA-3 or used as surcharge on Pier 400. The site would include only clean dredge material suitable for ocean disposal, would be approximately 120 acres in size, and built to an elevation of –15 feet Mean Lower Low Water (MLLW) to –20 feet MLLW. Following construction, the site would remain in place for a minimum of three years from completion of placement to initiation of removal for reuse or placement of additional dredge material. Material stored in this site may be used on-site or used at other locations in Los Angeles Harbor following receipt of the necessary regulatory approvals. The Port intends to implement a Management Plan that will outline the use of the site within the regulatory approvals associated with the project. The Management Plan will be submitted for approval of the undersigned parties prior to any use of the site following initial construction.

The Port shall not accrue mitigation credit for the increased habitat value resulting from the creation of this shallow water area. Eventual removal of this material or addition of material to the site after a minimum of three years shall not require general marine resource mitigation. Construction of fill at this site shall not require mitigation in excess of that required for Deep Outer Harbor Habitat. However, with concurrence of the undersigned, the Port may in the future choose to accrue shallow water habitat credit in accordance with the Outer Harbor Mitigation Bank Agreement (1997). Such notification shall be in writing to the undersigned parties.

SUBJECT: INTERAGENCY AGREEMENT – PORT OF LOS ANGELES
PIER 400 SUBMERGED STORAGE SITE

The signature pages of this Agreement are being executed in counterparts. When all parties have signed, all executed counterparts taken together shall constitute one and the same instrument.

Larry A. Keller — Date
Executive Director
Port of Los Angeles

Patricia Wolf — Date
Regional Manager
Marine Region
California Dept. of Fish & Game

Jim A. Bartel — Date
Field Supervisor, Carlsbad
U.S. Fish & Wildlife Service

Rodney McInnis — Date
Acting Regional Administrator
National Marine Fisheries Service

cc: Ruth Villalobos (U.S. Army Corps of Engineers)

Attachment

RGA
ADP 990809-102

Budget - FY 2002 103 #6
Acct. _____, Ctr. _____ Proj. _____
Job Fac. _____ W.O. _____
Funds Available, Date 7/8/02

APPROVED AS TO FORM

July 9, 2002

ROCKARD J. DELGADILLO

BY David McKeown

SUBJECT: INTERAGENCY AGREEMENT – PORT OF LOS ANGELES
PIER 400 SUBMERGED STORAGE SITE

The signature pages of this Agreement are being executed in counterparts. When all parties have signed, all executed counterparts taken together shall constitute one and the same instrument.

Larry A. Keller 7/3/02
Larry A. Keller Date
Executive Director
Port of Los Angeles

Patricia Wolf May 24, 2002
Patricia Wolf Date
Regional Manager
Marine Region
California Dept. of Fish & Game

Jim A. Bartel Date
Field Supervisor, Carlsbad
U.S. Fish & Wildlife Service

Rodney McInnis Date
Acting Regional Administrator
National Marine Fisheries Service

cc: Ruth Villalobos (U.S. Army Corps of Engineers)

Attachment

RGA
ADP 990809-102

Budget - FY 2002/03 #6
Acct. _____, Ctr. _____ Proj. _____
Job Fac. _____ W.O. _____
Funds Available, Date 7/8/02

Approved as to Form,
_____ 2002
ROCKARD J. DELGADILLO
City Attorney
By: _____
Deputy Assistant

SUBJECT: INTERAGENCY AGREEMENT – PORT OF LOS ANGELES
PIER 400 SUBMERGED STORAGE SITE

The signature pages of this Agreement are being executed in counterparts. When all parties have signed, all executed counterparts taken together shall constitute one and the same instrument.

7/3/02
Larry A. Keller Date
Executive Director
Port of Los Angeles

Chuck Raysbrook Date
Regional Manager, Region 5
California Dept. of Fish & Game

5/6/02
Jim A. Bartel Date
Acting Field Supervisor, Carlsbad
U.S. Fish & Wildlife Service

Rodney McInnis Date
Acting Regional Administrator
Habitat Conservation
National Marine Fisheries Service

cc: Ruth Villalobos (U.S. Army Corps of Engineers)

Attachment

RGA
ADP 990809-102

Budget - FY 2002 / 03 #0
Acct. _____, Ctr. _____ Proj. _____
Job Fac. _____ W.O. _____
Funds Available, Date 7/8/02

Approved as to form
July 9 2002
ROCKARD J. DELGADILLO
City Attorney
By _____
Senior Assistant

SUBJECT: INTERAGENCY AGREEMENT – PORT OF LOS ANGELES
PIER 400 SUBMERGED STORAGE SITE

The signature pages of this Agreement are being executed in counterparts. When all parties have signed, all executed counterparts taken together shall constitute one and the same instrument.

7/3/02

Larry A. Keller — Date
Executive Director
Port of Los Angeles

Patricia Wolf — Date
Regional Manager
Marine Region
California Dept. of Fish & Game

Rodney R McInnis 5-13-02

Jim A. Bartel — Date
Field Supervisor, Carlsbad
U.S. Fish & Wildlife Service

Rodney McInnis — Date
Acting Regional Administrator
National Marine Fisheries Service

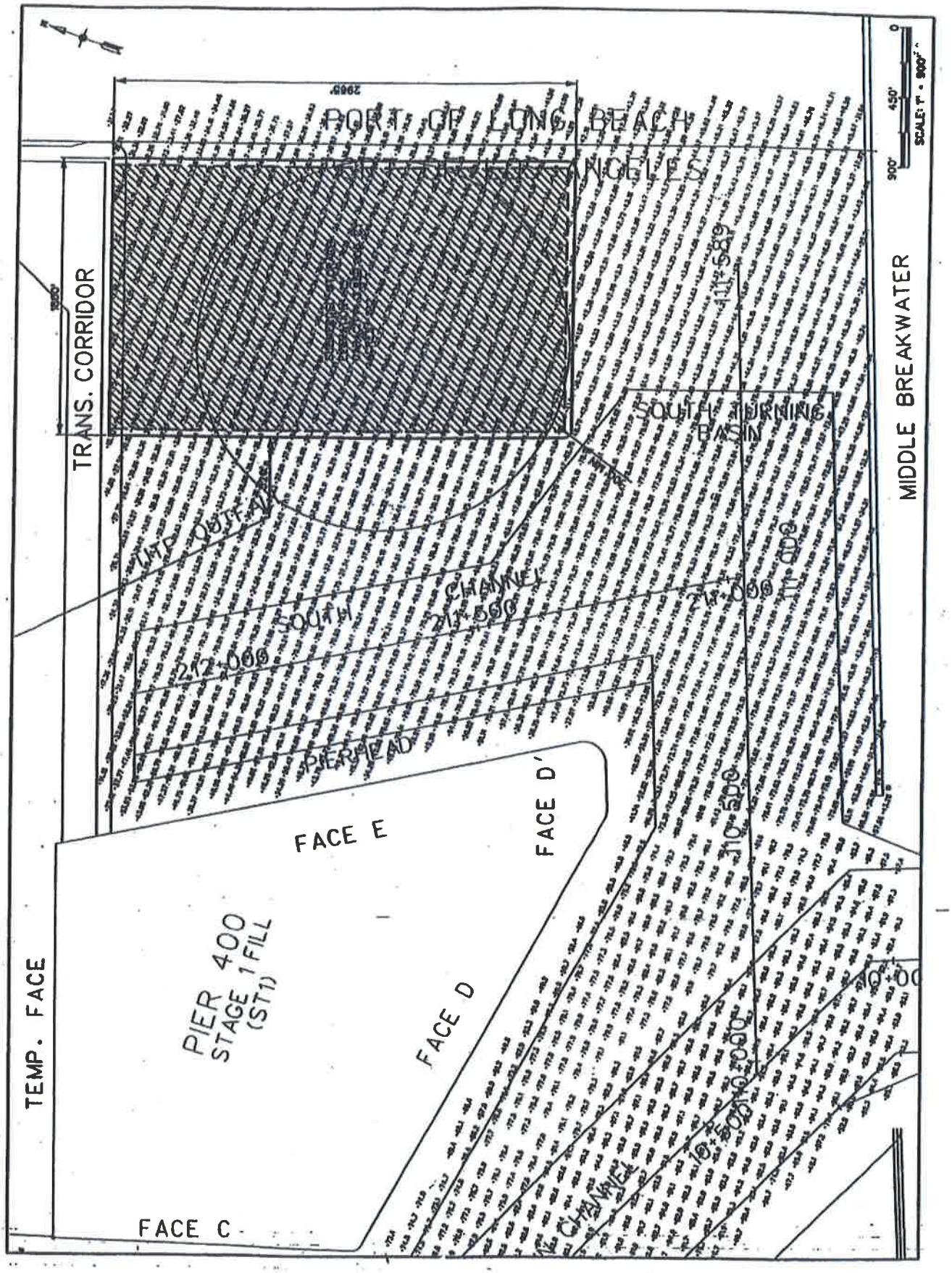
cc: Ruth Villalobos (U.S. Army Corps of Engineers)

Attachment

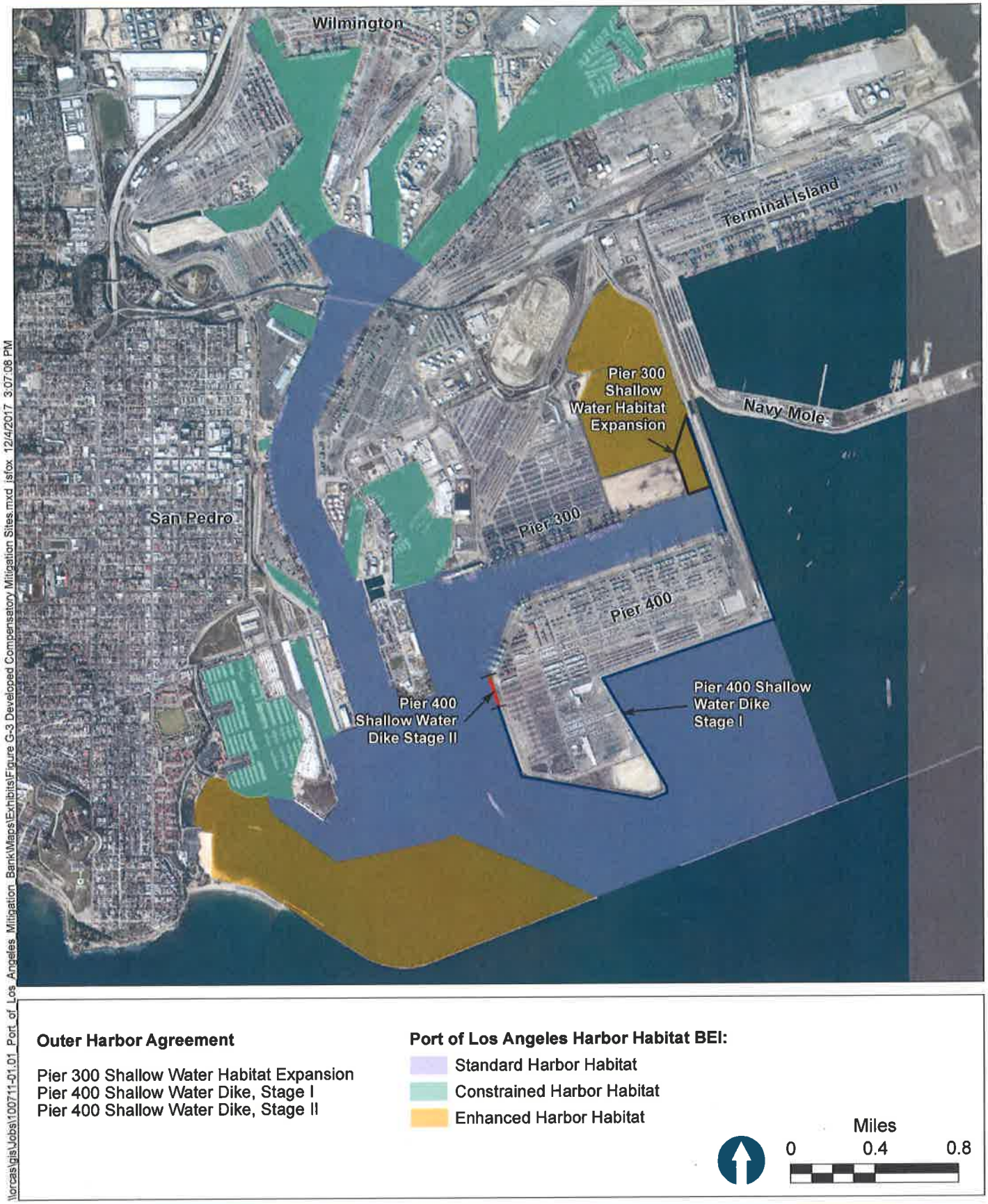
RGA
ADP 990809-102

Budget - FY 2002 103 $0
Acct. _____, Ctr. _____ Proj. _____
Job Fac. _____ W.O. _____
Funds Available, Date 7/8/02

Approved as to Form
July 9 2002
ROCKARD J. DELGADILLO
City Attorney
By _____
Senior Assistant



ATTACHMENT 1 - PIER 400 SUBMERGED STORAGE SITE



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ANCHOR QEA

Figure G-3
Additional Mitigation Sites Constructed per the Outer Harbor Agreement
Port of Los Angeles Harbor Habitat Mitigation Bank