



CITY OF MORRO BAY

City Council Regular Meeting Agenda

Tuesday, April 28, 2026, 5:30 p.m.

Veterans Memorial Hall
209 Surf St., Morro Bay, CA

Public Participation

Public participation is offered in the following ways:

- Community members may attend the meeting in person at the Morro Bay Veterans Hall.
- Alternatively, members of the public may watch the meeting and speak during general Public Comment or on a specific agenda item by logging into the Zoom webinar using the information provided below. Please use the "raise hand" feature to indicate your desire to provide public comment.
- Zoom webinar link: <https://us02web.zoom.us/j/82429164990>
- Or Telephone Attendee: 1 (669) 444-9171 or 1 (669) 900-9128 or 1 (346) 248-7799; Webinar ID: 824 2916 4990. Press *9 to raise hand for public comment.
- Meetings are also livestreamed on the City's website.
- Community Members are encouraged to submit agenda correspondence via email to the City Council at council@morrobayca.gov prior to the meeting. Agenda correspondence received by 10:00 a.m. on the meeting day will be posted on the City website.

Pages

1. ESTABLISH QUORUM AND CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. REPORTS
 - 3.a Closed Session Report
 - 3.b Mayor and Councilmembers' Reports, Announcements and Presentations
 - 3.c City Manager Reports, Announcements and Presentations
 - 3.d Subcommittee Reports - Verbal Update of Current Subcommittee Activities
 1. Water Reclamation Facility & Morro Bay / Cayucos Sanitary District JPA
 2. Morro Bay Power Plant (Vistra)
 3. Offshore Wind Energy
 4. Morro Elementary School
 5. Shared Fire Services
4. RECOGNITION AND PRESENTATIONS

None.
5. PUBLIC COMMENT

Members of the audience wishing to address the Council on City business matters not on the agenda may do so at this time. For those desiring to speak on items on the agenda, but unable to stay for the item, may also address the Council at this time.

- Public comment is an opportunity for members of the public to provide input to the governing body. To increase the effectiveness of the Public Comment Period, the City respectfully requests the following guidelines and expectations be followed:
- Those desiring to speak are asked to complete a speaker slip, which are located at the entrance, and submit it to the City Clerk. However, speaker slips are not required to provide public comment.
- When recognized by the Mayor, please come forward to the podium to speak. Though not required, it is helpful if you state your name, city of residence and whether you represent a business or group. Unless otherwise established by the Mayor, comments are to be limited to three minutes.
- All remarks should be addressed to Council, as a whole, and not to any individual member thereof.
- The Council respectfully requests that you refrain from making slanderous, profane or personal remarks against any elected official, commission and/or staff.
- Please refrain from public displays or outbursts such as unsolicited applause, comments or cheering.
- Any disruptive activities that substantially interfere with the ability of the City Council to carry out its meeting will not be permitted and offenders will be requested to leave the meeting.
- Your participation in City Council meetings is welcome and your courtesy will be appreciated.
- The Council in turn agrees to abide by its best practices of civility and civil discourse according to Resolution No. 07-19.

6. CONSENT AGENDA

Unless an item is pulled for separate action by the City Council, the following actions are approved without discussion. The public will also be provided an opportunity to comment on consent agenda items.

Recommended Action

Approve Consent Agenda Items 6.a through 6.e as submitted.

6.a Approval of Minutes
(City Clerk)

Recommended Action
Approve as submitted.

1. April 14, 2026 - Regular Council Meeting

6.b Approval of Proclamations

(City Clerk)

Recommended Action

Approve as submitted.

1. Proclamation Declaring May 2026 as "Bike Month"

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- 6.c Reappointment of Hemant Patel to the Visit SLO CAL Board of Directors**
(City Clerk)

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Recommended Action

Reappoint Hemant Patel as the City's representative on the Visit SLO CAL Board of Directors (Board) for a 3-year term ending June 2029.

- 6.d Ordinance No. 679, amending Chapter 14.75 of Title 14 (Buildings and Construction) of the MBMC to incorporate the provisions of Senate Bill 1383, which updated the California Green Building Standards Code, or CALGreen**
(Community Development Department)

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Recommended Action

Adopt Ordinance No. 679: "An Ordinance of the City Council of the City of Morro Bay, California, amending Chapter 14.75 of Title 14 (Buildings and Construction) of the Morro Bay Municipal Code (MBMC) to incorporate the provisions of Senate Bill 1383, which updated the California Green Building Standards Code (CALGreen)."

- 6.e Equipment donation from the Friends of the Morro Bay Fire Department**
(Fire Department)

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Recommended Action

Accept the donated equipment from the Friends of the Morro Bay Fire Department and authorize the City Manager to execute the Donation Agreement.

7. PUBLIC HEARING ITEMS

None.

8. BUSINESS ITEMS

- 8.a Offshore Wind Operations and Maintenance Infrastructure Study - Morro Bay**
(Community Development Department)

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Recommended Action

Receive and file the attached Offshore Wind Operations and Maintenance (O&M) Infrastructure Study.

- 8.b Approve a Professional Services Agreement with Cannon Corporation for Design of Phase 1 and Environmental Permitting for all Phases of the North Morro Bay Water Improvements Project**
(Public Works Department)

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Recommended Action

Approve and authorize the City Manager to execute a professional services agreement with Cannon Corporation to provide design and engineering services during construction for Phase 1 of the North Morro Bay Water

Improvements Project (Project), and environmental review and permitting for all phases of the Project, in an amount not-to-exceed \$525,492.00, and authorize the City Manager to execute amendments if necessary not to exceed \$52,549.00 for contingencies.

9. **COUNCIL DECLARATION OF FUTURE AGENDA ITEMS**

10. **ADJOURNMENT**

The next Regular Meeting will be held on May 12, 2026.

This agenda is subject to amendment up to 72 hours prior to the date and time set for the meeting. Please refer to the agenda posted at City Hall, 595 Harbor Street, Morro Bay, CA 93442 for any revisions or call the Clerk's office at (805) 772-6205 for further information.

Materials related to an item on this agenda submitted to the City Council after distribution of the agenda packet are available for public inspection upon request by calling the City Clerk's office at (805) 772-6205.

In compliance with the Americans Disability Act, if you need special assistance to participate in a City meeting, please contact the Clerk's office 24 hours prior to the meeting to insure reasonable arrangements can be made to provide accessibility to the meeting.



**MINUTES - MORRO BAY CITY COUNCIL
REGULAR MEETING**

**April 14, 2026, 5:30 p.m.
Veterans Memorial Hall
209 Surf St., Morro Bay, CA**

Members Present: Mayor Carla Wixom
Council Member Jeff Eckles
Council Member Cyndee Edwards
Council Member Zara Landrum
Council Member Bill Luffee

Staff Present: City Manager John Craig
City Attorney Brian Stack
City Clerk Dana Swanson
Finance Director Emily Conrad
Community Development Director Airlin Singewald
Police Chief Amy Watkins
Fire Chief Dan McCrain
Harbor Director Chris Munson
Utilities Division Manager Damaris Hanson
City Engineer Nate Stong

1. ESTABLISH QUORUM AND CALL TO ORDER

Mayor Wixom called the meeting to order at 5:32 p.m. with all members present.

2. PLEDGE OF ALLEGIANCE

3. REPORTS

3.a Closed Session Report

City Attorney Stack announced the Council had not met in closed session since the last regular meeting.

3.b Mayor and Councilmembers' Reports, Announcements and Presentations

3.c City Manager Reports, Announcements and Presentations

3.d Subcommittee Reports - Verbal Update of Current Subcommittee Activities

1. Water Reclamation Facility & Morro Bay / Cayucos Sanitary District JPA
2. Morro Bay Power Plant (Vistra)
3. Offshore Wind Energy

4. Morro Elementary School
5. Shared Fire Services

4. RECOGNITION AND PRESENTATIONS

4.a Morro Bay Yacht Club 70th Anniversary Proclamation

Presented to Morro Bay Yacht Club Commodore John Wimer.

5. PUBLIC COMMENT

- June McIvor, SLO Climate Coalition, appreciated the proclamation recognizing April as Earth Month and invited residents to attend SLO Earthfest 2026 on April 18th from 11:00am - 5:00pm at Santa Rosa Park in San Luis Obispo.
- Susan Stewart, Morro Bay business owner and Chair of the Chamber Business Advocacy Committee, announced upcoming Chamber events including the Avocado & Margarita Street Festival on September 12th. Visit avomargfest.com for more information.
- Tina Metzger, Morro Bay, encouraged residents to attend the San Luis Obispo County Desal Meeting at the Community Center on Monday, April 20th, from 6:00-8:00pm.
- Denise Lowe, Morro Bay, Acting Chair of the Chamber of Commerce, invited residents to the Spring Shop, Sip & Stroll event on April 26th from 1:00 - 4:00pm. Tickets are available online at morrochamber.org.
- Mike Gerson, Morro Bay, announced the reopening of the San Luis Obispo Shooting Range. Visit slosr.org for more information.
- Linda Winters, Morro Bay, shared thoughts and words of encouragement.
- Renny Dean Strong, offered comments on world issues.
- Betty Winholtz, Morro Bay, on behalf of Friends of Morro Elementary, shared a message from Kent Nagano.

End of public comment.

6. CONSENT AGENDA

Unless an item is pulled for separate action by the City Council, the following actions are approved without discussion. The public will also be provided an opportunity to comment on consent agenda items.

Mayor Wixom opened public comment for items on the Consent Agenda.

- Betty Winholtz, Morro Bay, stated the AB 2561 report should be a public hearing item and General Plan update a business item. She asked the City to include a statement that residents do not want BESS projects within our sphere of influence and suggested the Planning Commission prepare the Housing Element update. Regarding Item 6.e., she inquired about project costs to date and ongoing expenses and requested the monitoring plan be posted online.

End of public comment.

Staff responded to questions raised during public comment.

Council Member Landrum pulled Item 6.e

Motion by Council Member Eckles

Seconded by Council Member Luffee

Approve all items on the Consent Agenda except Item 6.e.

Ayes (5): Mayor Wixom, Council Member Eckles, Council Member Edwards, Council Member Landrum, and Council Member Luffee

CARRIED (5 to 0)

6.a Approval of Minutes

Approve as submitted.

1. March 24, 2026 - Regular Council Meeting

6.b Approval of Proclamations

1. Proclamation Recognizing April 2026 as Sexual Assault Awareness Month
2. Proclamation Recognizing the 70th Anniversary of the Morro Bay Yacht Club
3. Proclamation Recognizing April 2026 as Earth Month and SLO Earthfest 2026

6.c Adoption of Resolution No. 18-26 Initiating Proceedings to Levy the Annual Assessment for the Cloisters Park and Open Space - Landscaping and Lighting Maintenance Assessment District

Adopt Resolution No. 18-26 ordering the preparation of an Engineer's Report detailing the expenses projected for Fiscal Year (FY) 2026/27 for the maintenance of the Cloisters Park and Open Space under the provisions of the "Landscaping and Lighting Act of 1972."

6.d Adoption of Resolution No. 19-26 Initiating Proceedings to Levy the Annual Assessment for the North Point Natural Area - Landscaping and Lighting Maintenance Assessment District

Adopt Resolution No. 19-26 ordering the preparation of an Engineer's Report detailing the expenses projected for Fiscal Year (FY) 2026/27 for the maintenance of the North Point Natural Area under the provisions of the "Landscaping and Lighting Act of 1972."

6.e Morro Creek Stabilization Project Completion Report

City Engineer Stong clarified the original budget appropriation for this project included biology work to permit and develop the monitoring plan and 5-year monitoring and offered to post the plan on the City website.

Motion by Council Member Landrum

Seconded by Council Member Luffee

Terminate the emergency action for the Morro Creek Bank Stabilization Project pursuant to Public Contract Code Section 22050.

Ayes (5): Mayor Wixom, Council Member Eckles, Council Member Edwards, Council Member Landrum, and Council Member Luffee

CARRIED (5 to 0)

6.f Equipment donation from the Friends of the Morro Bay Fire Department

Accept the donated equipment from the Friends of the Morro Bay Fire Department and authorize the City Manager to execute the Donation Agreement.

6.g General Plan Annual Progress Report for Reporting Year 2025

Receive and file the General Plan Annual Progress Report.

6.h Ordinance No. 679, amending Chapter 14.75 of Title 14 (Buildings and Construction) of the MBMC to incorporate the provisions of Senate Bill 1383, which updated the California Green Building Standards Code, or CALGreen

Introduce for first reading by title only and with further reading waived, Ordinance No. 679: "An Ordinance of the City Council of the City of Morro Bay, California, amending Chapter 17.45 of Title 14 (Buildings and Construction) of the Morro Bay Municipal Code, to incorporate the provisions of Senate Bill 1383, which updated the California Green Building Standards Code (CALGreen)."

6.i Submission of a letter of support for AB 2517 (Calderon), a Cal Cities sponsored bill that would improve the Fire Hazard Severity Zone (FHSZ) designation process conducted by the Office of the State Fire Marshal

Submit a letter of support for AB 2517 (Calderon), a Cal Cities sponsored bill that would improve the Fire Hazard Severity Zone (FHSZ) designation process conducted by the Office of the State Fire Marshal by ensuring consistent and timely updates to the local responsibility area FHSZ maps.

6.j Annual Status Report on Vacancies to Comply with Assembly Bill 2561

Receive and file this report.

7. PUBLIC HEARING ITEMS

The Council took a brief recess at 6:18 p.m. and reconvened at 6:28 p.m. with all members present.

7.a Public Hearing and Adoption of Resolution No. 20-26 Updating and Establishing Various User and Regulatory Fees for Fiscal Year (FY) 2026-27

Finance Director Conrad presented the report and, along with Harbor Director Munson and Community Development Director Singewald, responded to Council inquiries.

Mayor Wixom opened the public hearing and public comment for Item 7.a.

- Betty Winholtz, Morro Bay, advocated for no CPI increase on appeal fees to ensure a person's right to participate within their government.
- Tina Metzger, Morro Bay, agreed the appeal fee should not be increased as projects improve from the public process.
- Michelle Leicester-Cadaret, Morro Bay, also supported the request noting families do not have disposable income and lower appeal fees allow residents to participate.

End of public comment.

Mayor Wixom closed the public hearing.

Staff responded to additional questions and clarified the proposed fee for land use appeals, including CPI, is \$419.

Council Member Eckles proposed a total cap of 10% increase on fees, inclusive of CPI, as we move toward full cost recovery. Council Member Landrum supported this approach.

The Council directed staff to review and return with the following items:

- a tiered structure for short-term rental (STR) permits,
- potential for increased liveaboard fees (inspection & monthly rate), and
- a fee scheme that incentivizes workforce and multi-family housing. Community Development Director Singewald suggested consideration of lowering fees to spur development occur with Development Impact Fee discussion coming to Council in the next few months.

There was majority support to accept the fees as presented except the land use appeal fee which would remain unchanged. Council Members Eckles and Landrum dissented as they favored a 10% cap inclusive of CPI.

**Motion by Mayor Wixom
Seconded by Council Member Luffee**

Adopt Resolution No. 20-26 updating and establishing various user and regulatory fees for FY 2026-27 with the direction provided including no CPI increase on land use appeal fees.

Ayes (3): Mayor Wixom, Council Member Edwards, and Council Member Luffee

Noes (2): Council Member Eckles, and Council Member Landrum

CARRIED (3 to 2)

8. BUSINESS ITEMS

None.

9. COUNCIL DECLARATION OF FUTURE AGENDA ITEMS

None.

10. **ADJOURNMENT**

The meeting adjourned at 7:45 p.m.

Respectfully submitted,

/s/ Dana Swanson, City Clerk

**A PROCLAMATION OF THE CITY COUNCIL
OF THE CITY OF MORRO BAY, CALIFORNIA
DECLARING MAY 2026 AS “BIKE MONTH”**

**CITY COUNCIL
City of Morro Bay, California**

Whereas, the bicycle is a viable and environmentally sound form of transportation and an excellent form of recreation; and

Whereas, millions of Californians will experience the joys of bicycling during the month of May through educational programs, races, commuting events, trail work days, helmet promotion, charity events, or just getting out and going for a ride; and

Whereas, California hosts the longest segment of internationally popular Pacific Coast Bike Route, considered one of the most scenic biking trails anywhere in the world, bringing bicycle tourism in the form of hundreds of cross- country and local bicyclists each year,

Whereas, San Luis Obispo County offers urban and rural cycling routes popular to riders statewide; and

Whereas, these bicycling activities and attractions have great potential to have a positive impact on San Luis Obispo County’s economy and tourism industry and to stimulate economic development by making the state attractive to businesses and citizens who enjoy the out of doors and healthy lifestyles; and

Whereas, creating bicycle-friendly communities has been shown to improve citizens’ health, well-being, and quality of life, to boost community spirit, to improve traffic safety, and to reduce pollution and congestion; and

Whereas, May has been declared National Bike Month for each of the last 69 years, and is so again in 2026; and

Whereas, the League of American Bicyclists, CalBike, bicycle clubs and advocacy organizations, schools, parks and recreation departments, police departments, hospitals, companies and civic groups throughout California will be promoting bicycling as a leisure activity as well as an environmentally-friendly alternative to the automobile during the month of May 2026; and

Whereas, the education of bicyclists and motorists as to the proper and safe operation of bicycles is important to ensure the safety and comfort of all users; and

Whereas, Calbike, The San Luis Obispo Council of Governments, Bike SLO County, and other organizations across the state will promote bicycle safety during the month of May 2026; and

Whereas, the League of American Bicyclists sets May of each year as National Bike Month.

NOW, THEREFORE BE IT RESOLVED, the Morro Bay City Council, California, does hereby proclaim the month of May 2026 as Bike Month.

IN WITNESS WHEREOF I have hereunto set my hand and caused the seal of the City of Morro Bay to be affixed this 28th day of April, 2026.

CARLA WIXOM, MAYOR
City of Morro Bay, California



AGENDA NO: 6.c

MEETING DATE: April 28, 2026

Staff Report

TO: Honorable Mayor and City Council

DATE: April 13, 2026

FROM: Dana Swanson, City Clerk

SUBJECT: Reappointment of Hemant Patel to the Visit SLO CAL Board of Directors

RECOMMENDED ACTION

Reappoint Hemant Patel as the City's representative on the Visit SLO CAL Board of Directors (Board) for a 3-year term ending June 2029.

ALTERNATIVES

The Council may choose to direct staff to conduct an open recruitment to fill the seat and/or may direct that appointment be made by the City Manager.

FISCAL IMPACT

There is no fiscal impact associated with this action.

BACKGROUND/DISCUSSION

Visit SLO CAL Board of Directors

In December 2014, the City Council adopted Resolution No. 82-14 consenting to the inclusion of the City within the proposed San Luis Obispo County Tourism Marketing District (SLOCTMD), an action that was reconfirmed in 2019 with the adoption of Resolution No. 84-19 consenting to the renewal of the SLOCTMD. The [SLOCTMD Management District Plan \(Plan\)](#) provides each community has a representative of an assessed lodging business on the Board of Directors, a nonprofit corporation, which serves as the Owner's Association for the SLOCTMD.

Hemant Patel has served as the City's representative to the Visit SLO CAL Board of Directors since August 2018. He has expressed a willingness and desire to continue to serve as the City's representative on the Board for a new 3-year term.

The Plan provides the following selection process:

- At least one lodging business representative from each of the cities shall be appointed by the respective jurisdiction's city council or tourism organization, as each city determines.
- At least one lodging business representative shall be appointed by the County Board of Supervisors.
- At least one additional representative at-large shall be appointed by the County Board of Supervisors.
- Nominations shall be sought from the assessed lodging businesses for the remaining at-large seats. Nominations will be verified by the nominating committee, and a slate provided to the Board of Directors for election. The slate will take into consideration the requirement for various business types.

Prepared By: DS

Dept Review: DS

City Manager Review: JC

City Attorney Review: BS

Cathy Cartier, President & CEO of Visit SLO CAL submitted a letter of recommendation for Mr. Patel, which is provided as Attachment 2. Given the latitude provided in the Plan, the Council has the authority to appoint Mr. Patel to the Board for the 3-year term. Alternatively, the Council may direct staff to advertise for recruitment and conduct interviews at a later date, or consider some other method consistent with appointment directed by the Council.

ATTACHMENTS

1. San Luis Obispo Tourism Marketing District Management District Plan [Link](#)
2. Letter of recommendation from Visit SLO CAL

Dana Swanson

From: John Craig
Sent: Friday, April 10, 2026 11:37 AM
To: Dana Swanson; Heather Goodwin
Subject: Fw: Visit SLO CAL Board Seat Renewal

John Craig, City Manager

jcraig@morrobayca.gov
(805) 554-9559

Sent from my cellphone, please excuse any typos

From: Cathy Cartier <cathy@slocal.com>
Sent: Monday, March 30, 2026 9:10:29 AM
To: John Craig <jcraig@morrobayca.gov>
Cc: Heather Goodwin <hgoodwin@morrobayca.gov>; Emily Rudge <emily@slocal.com>
Subject: Visit SLO CAL Board Seat Renewal

CAUTION: This is an external email. Please take care when clicking links or opening attachments.

Good morning, John.

As you are aware, Morro Bay has representation on the Visit SLO CAL Board with the appointment of Hemant Patel. Hemant has served on our Board since 2018 and is a member of our Executive Committee, having previously served as Board Chair. His current term ends in June of this year and is up for renewal for an additional three-year term.

Hemant has been an excellent representative for Morro Bay on our Board, and we would welcome his reappointment.

If you have any questions please don't hesitate to reach out.

Best,
Cathy



Cathy Cartier | President & CEO

Visit SLO CAL

cathy@slocal.com

O: 805.541.8000 | C: 702-510-4597

slocal.com



AGENDA NO: 6.d

MEETING DATE: April 28, 2026

Staff Report

TO: Honorable Mayor and City Council **DATE:** April 17, 2026
FROM: Airlin M. Singewald, Community Development Director
SUBJECT: Ordinance No. 679, amending Chapter 14.75 of Title 14 (Buildings and Construction) of the MBMC to incorporate the provisions of Senate Bill 1383, which updated the California Green Building Standards Code, or CALGreen

RECOMMENDED ACTION

Adopt Ordinance No. 679: “An Ordinance of the City Council of the City of Morro Bay, California, amending Chapter 14.75 of Title 14 (Buildings and Construction) of the Morro Bay Municipal Code (MBMC) to incorporate the provisions of Senate Bill 1383, which updated the California Green Building Standards Code (CALGreen).”

ALTERNATIVES

Staff does not recommend any alternatives to adopting Ordinance No. 679 to incorporate the latest changes to the CALGreen Code regarding construction waste recycling.

FISCAL IMPACT

The attached ordinance would not significantly impact the City’s budget. While the ordinance changes the fine structure for non-compliance with State recycling requirements, these fines are an insignificant part of the City’s budget.

BACKGROUND/DISCUSSION

At the April 14, 2026 Regular Meeting, Council was presented a report and proposed Ordinance No. 679 entitled “An Ordinance of the City Council of the City of Morro Bay, California, amending Chapter 14.75 of Title 14 (Buildings and Construction) of the Morro Bay Municipal Code (MBMC) to incorporate the provisions of Senate Bill 1383, which updated the California Green Building Standards Code (CALGreen).”

A link to the April 14, 2026 staff report and attachment can be found [here](#).

CONCLUSION

Staff recommends the City Council adopt Ordinance No. 679, which incorporates the latest changes to the CALGreen Code regarding construction waste recycling, consistent with State law.

If adopted, the Ordinance and new construction waste recycling requirements, consistent with State law, will become effective May 28, 2026.

Prepared By: AMS

Dept Review: AMS

City Manager Review: JC

City Attorney Review: BS

ATTACHMENTS

1. Ordinance No. 679, Amendments to MBMC 14.75 – Mandatory Construction and Demolition Debris Recycling Program
 - a. Exhibit A – 14.75 Mandatory Construction and Demolition Debris Recycling Program Redlines

ONLINE LINKS

1. CalRecycle “Overview of Requirements” for SB 1383 and CALGreen:
<https://calrecycle.ca.gov/organics/sicp/jurisdictions/calgreenmwelo/#:~:text=Construction%20Waste%20Diversion,building%20projects%20in%20the%20state.>

ORDINANCE NO. 679

**AN ORDINANCE OF THE CITY COUNCIL
OF THE CITY OF MORRO BAY, CALIFORNIA, AMENDING
CHAPTER 14.75 OF TITLE 14 (BUILDINGS AND
CONSTRUCTION) OF THE MORRO BAY MUNICIPAL CODE
(MBMC) TO INCORPORATE THE PROVISIONS OF SENATE
BILL 1383, WHICH UPDATED THE CALIFORNIA GREEN
BUILDING STANDARDS CODE (CALGREEN)**

**THE CITY COUNCIL
City of Morro Bay, California**

WHEREAS, on April 22, 2002, the City Council of the City of Morro Bay (“City Council”) held a duly noticed public hearing and passed Ordinance No. 488, which established a Construction and Demolition Debris Recycling Program pursuant to the provisions of Assembly Bill 939 (“AB 939”); and

WHEREAS, the California Legislature passed Senate Bill 1383 (“SB 1383”) in 2016, with the goal of reducing short-lived climate pollutants, specifically methane emissions, by targeting organic waste reduction; and

WHEREAS, SB 1383 directed the California Department of Resources Recycling and Recovery (“CalRecycle”) to adopt regulations to reduce organic waste by 50 percent from its 2014 baseline level by 2020 and 75 percent by 2025; and

WHEREAS, CalRecycle promulgated regulations as directed by SB 1383 in Chapter 12 (Short-Lived Climate Pollutants) of Division 7 of Title 14 of the California Code of Regulations (“SB Regulations”); and

WHEREAS, jurisdictions are required to adopt the California Green Building Standards Code (“CALGreen”), Sections 4.408.1 and 5.408 in their municipal code, which requires projects requiring local construction permits to divert at least 65% of the Construction and Demolition (“C&D”) generated at the project site from landfills; and

WHEREAS, SB 1383 regulations require jurisdictions to have a mechanism to enforce CALGreen’s 65% C&D debris requirement; and

WHEREAS, the City has a C&D Debris Recycling Program in place that was established through Ordinance No. 488 and is incorporated into the MBMC through Section 14.75 – Mandatory Construction and Demolition Debris Recycling Program; and

WHEREAS, the City desires to amend MBMC Section 14.75 to comply with the regulations set forth in SB 1383.

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MORRO BAY DOES
ORDAIN AS FOLLOWS:**

SECTION 1. Recitals. The City Council hereby declares and adopts the foregoing recitals and findings as true and correct and they are incorporated herein.

SECTION 2. Municipal Code Amendments. The City Council hereby adopts the proposed Ordinance, amending Title 14 (Buildings and Construction), Chapter 14.75 (Mandatory Construction and Demolition Debris Recycling Program) of the Morro Bay Municipal Code as shown in Exhibit A – MBMC Section 14.75: Mandatory Construction and Demolition Debris Recycling Program.

SECTION 5. CEQA Findings. The City Council has considered the changes that are proposed with respect to the matter described above. The City Council has, as a result of its consideration, the evidence presented at the hearings on said manner, and all comments that were received during the public hearing process, determined that this activity is exempt from review pursuant to Section 15061(b)(3) which provides that an activity is not subject to CEQA review where it can be seen with certainty that there is no possibility that it may have a “significant effect on the environment.” The City Council finds that it can be seen with certainty that there is no possibility that the amendment of MBMC Section 14.75 to incorporate the provisions of SB 1383 may have a significant effect on the environment because there is no substantial evidence that the adoption of this ordinance will have a significant effect on the environment. The City Council hereby approves this amendment of the MBMC in accordance with the California Environmental Quality Act.

SECTION 6. Severability. If any section, subsection, phrase, or clause of this ordinance or any part thereof is for any reason held to be unconstitutional or otherwise unenforceable, such decision shall not affect the validity of the remaining portions of this ordinance or any part thereof. The City Council hereby declares that it would have passed this ordinance and each section, subsection, phrase or clause thereof irrespective of the fact that any one or more sections, subsections, phrases, or clauses be declared unconstitutional or otherwise unenforceable.

SECTION 7. Effective Date. This Ordinance shall take effect 30 days after its adoption and upon certification required as an operation of law.

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SECTION 8. Certification. The City Clerk shall certify as to the passage and adoption of this Ordinance and shall cause the same to be posted as the designated locations in the City of Morro Bay.

INTRODUCED at a regular meeting of the City Council of Morro Bay, held on the 14th day of April 2026 by motion of Councilmember Eckles and seconded by Councilmember Luffee.

PASSED AND ADOPTED on the ____ day of _____, 2026, by the following vote:

- AYES:
- NOES:
- ABSENT:
- ABSTAIN:
- RECUSE:

CARLA WIXOM, MAYOR

ATTEST:

DANA SWANSON, City Clerk

APPROVED AS TO FORM:

BRIAN STACK, City Attorney

STATE OF CALIFORNIA)
COUNTY OF SAN LUIS OBISPO)
CITY OF MORRO BAY)

I, Dana Swanson, City Clerk for the City of Morro Bay, California, do hereby certify that the foregoing Ordinance No. 679 was duly passed and adopted by the City Council of the City of Morro Bay at the regular meeting thereof, held on the ____ day of _____ 2026, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:
RECUSED:

IN WITNESS WHEREOF I have hereunto set my hand and affixed the official seal of the City of Morro Bay, California, this _____ day of _____, 2026.

DANA SWANSON, City Clerk

Chapter 14.75 MANDATORY CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING PROGRAM

~~Sections:~~

14.75.010 Definitions.

"Applicant" means any individual, firm, limited liability company, association, partnership, political subdivision, government agency, municipality, industry, public or private corporation, or any other entity whatsoever who applies to the eCity for the applicable permits to undertake any construction, demolition, or renovation project within the city, unless otherwise specifically exempted by law.

"Commingled waste" means a system in which all paper fibers, plastics, metals, and other containers are mixed in a collection truck, instead of being sorted by the depositor into separate commodities. (also known as "single-stream", "single-sort").

"Compliance official" means the chief building official or his/her designee.

"Construction" means the building of any structure or any portion thereof including any tenant improvements to an existing facility or structure.

"Construction and demolition debris" means used or discarded materials removed from premises during construction or renovation of a structure resulting from construction, remodeling, repair, or demolition operations on any pavement, house, commercial building, or other structure.

"Conversion rate" means the rate set forth in the standardized conversion rate table approved by the eCity pursuant to this article for use in estimating the volume or weight of materials identified in a recycling plan.

~~"Covered project" shall have the meaning set forth in Section 14.75.020(A) of this chapter.~~ means any construction, addition, or alteration where there is an increase in the building's conditioned area, volume, or size.

"Deconstruction" means the systematic removal of usage items from a structure.

"Demolition" means the decimating, razing, ruining, tearing down or wrecking of any facility, structure, pavement or building, whether in whole or in part, whether interior or exterior.

"Divert" means to use material for any purpose other than disposal in a landfill.

"Diversion requirement" means the diversion of at least ~~fifty~~ sixty-five percent by weight of the total construction and demolition debris generated by a project via reuse or recycling, unless the applicant has been granted an infeasible exemption pursuant to Section 14.75.060 of this chapter, in which case the diversion requirement shall be the maximum feasible diversion rate established by the recycling plan compliance official for the project.

~~"Noncovered project" shall have the meaning set forth in Section 14.75.020(C) of this chapter.~~

"Project" means any activity that requires an application for a building or demolition permit or any similar permit from the eCity.

"Renovation" means any change, addition, or modification in an existing structure.

"Reuse" means further or repeated use of construction or demolition debris.

"Salvage" means the controlled removal of construction or demolition debris from a permitted building or demolition site for the purpose of recycling, reuse or storage for later recycling or reuse.

"Recycling plan" means a completed recycling plan form, approved by the city for the purpose of compliance with this article, submitted by the applicant for any covered or noncovered project.

(Ord. No. 564, 11-8-10)

~~14.75.020 Threshold for covered projects.~~

~~A. — Covered Projects. All construction and renovation projects within the city, the valuation of which are, or are projected to be, greater than or equal to fifty thousand dollars ("covered projects"), shall be required to divert at least fifty percent of all project construction and demolition debris in compliance with this chapter. The cost of the project shall be the valuation ascribed to the project by the building official. In addition, all demolition projects having a total footage of more than one thousand square feet shall be a covered project. Failure to comply with any of the terms of this chapter shall subject the project applicant to the full range of enforcement mechanisms set forth in Sections 14.75.050(C)(3) and 14.75.060 below.~~

~~B. — City Sponsored Projects. All city sponsored construction and renovation projects within the city, the costs of which are, or are projected to be, greater than or equal to fifty thousand dollars ("covered projects") shall be required to divert at least fifty percent of all project construction and demolition debris in compliance with this chapter. The cost of the project shall be the valuation attributed to the permit issued by the building official. In addition, all demolition projects having a total square footage of more than one thousand shall be a covered project.~~

~~These city sponsored covered projects shall submit a recycling plan to the compliance official prior to beginning any construction or demolition activities and shall be subject to all applicable provisions of this chapter with the exception of Section 14.75.050(C)(3).~~

~~C. — Non Covered Projects. Applicants for construction, demolition, and renovation projects within the city whose permit valuations are less than fifty thousand dollars ("non covered projects") shall be encouraged to divert at least fifty percent of all project related construction and demolition debris.~~

~~D. — Compliance as a Condition of Approval. Compliance with the provisions of this chapter shall be listed as a condition of approval on any building or demolition permit issued for a covered project.~~

(Ord. No. 564, 11-8-10)

14.75.020 Construction Waste Management Residential.

A. All residential covered projects within the City shall be required to recycle and/or salvage for reuse at least sixty-five (65) percent of the nonhazardous construction and demolition debris in compliance with this chapter and section 4.408.1 of the 2025 California Green Building Standards Code.

Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals. (See Section 4.410.2: 2019 CGBSC)

If commingled waste is identified in sorted, separated commodities, the applicant is subject to waste conversion to a single-stream collection method. Failure to comply with any of the terms of this chapter or section 4.408.1 of the 2025 California Green Building Standards Code, shall subject the project

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applicant to the full range of enforcement mechanisms set forth in Sections 14.75.050(C)(3) and 14.75.060 below.

- B. City-Sponsored Residential covered Projects. All city-sponsored residential construction and renovation projects within the City shall be required to recycle and/or salvage for reuse at least sixty-five (65) percent of the nonhazardous construction and demolition debris in compliance with this chapter. These city-sponsored projects shall submit a recycling plan to the compliance official prior to beginning any construction or demolition activities and shall be subject to all applicable provisions of this chapter and section 4.408.1 of the 2025 California Green Building Standards Code with the exception of Section 14.75.050(C)(3).

14.75.020.1 Construction Waste Management Non-Residential.

- C. All non-residential construction and renovation projects within the city shall be required to recycle and/or salvage for reuse at least sixty-five (65) percent of the nonhazardous construction and demolition debris in compliance with this chapter and section 5.408.1 of the 2025 California Green Building Standards Code.

Recycling by occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals. (See section 5.410.1: 2019 CGBSC)

If commingled waste is identified in sorted, separated commodities, the applicant is subject to waste conversion to a single-stream collection method. Failure to comply with any of the terms of this chapter shall subject the project applicant to the full range of enforcement mechanisms set forth in Sections 14.75.050(C)(3) and 14.75.060 below.

- D. City-Sponsored Non-Residential covered Projects. All city-sponsored non-residential construction and renovation projects within the city shall be required to recycle and/or salvage for reuse at least sixty-five (65) percent of the nonhazardous construction and demolition debris in compliance with this chapter. These city-sponsored projects shall submit a recycling plan to the compliance official prior to beginning any construction or demolition activities and shall be subject to all applicable provisions of this chapter and section 5.408.1 of the 2025 California Green Building Standards Code with the exception of Section 14.75.050(C)(3).

14.75.030 Submission of C&D recycling plan.

- A. C&D Recycling Plan Forms. Applicants for building or demolition permits involving any covered project shall complete and submit a recycling plan on a recycling plan form approved by the eCity for this purpose as part of the application packet for the building or demolition permit. The completed recycling plan shall indicate all of the following:
1. The estimated volume or weight of project construction and demolition debris, by materials type, to be generated;
 2. The maximum volume or weight of such materials that can feasibly be diverted via reuse or recycling;
 3. The vendor or facility that the applicant proposes to use to collect or receive that material; and
 4. The estimated volume or weight of construction and demolition debris that will be landfilled.

B. Calculating Volume and Weight of Debris. In estimating the volume or weight of materials identified in the recycling plan, the applicant shall use the standardized conversion rates approved by the eCity for this purpose.

C. Deconstruction. In preparing the recycling plan, applicants for building or demolition permits involving the removal of all or part of an existing structure shall deconstruct, to the maximum extent feasible, and shall make the materials generated thereby available for salvage. (Ord. 488 § 1 (part), 2002)

(Ord. No. 564, 11-8-10)

14.75.040 Review of recycling plan.

A. Approval. Notwithstanding any other provision of this code, no building or demolition permit shall be issued for any covered project unless and until the recycling plan compliance official has approved the recycling plan. Approval shall not be required, however, where an emergency demolition is required to protect the public health, welfare or safety as determined by the chief building official. The recycling plan compliance official shall only approve a recycling plan if he or she first determines that all of the following conditions have been met:

1. The recycling plan provides all of the information set forth in Section 14.75.030(A) of this chapter; and
2. The recycling plan indicates that at least fifty sixty-five percent by weight of all construction and demolition debris generated by the project will be diverted.

If the recycling plan compliance official determines that these conditions have been met, he or she shall mark the recycling plan "approved," return a copy of the recycling plan to the applicant, and notify the building divisiondepartment that the recycling plan has been approved.

B. Nonapproval. If the recycling plan compliance official determines that the recycling plan is incomplete or fails to indicate that at least fifty sixty-five percent by weight of all construction and demolition debris generated by the project will be reused or recycled, he or she shall either:

1. Return the recycling plan to the applicant marked "denied," including a statement of reasons, and so notify the building divisiondepartment; or
2. Return the recycling plan to the applicant marked "further explanation required."

(Ord. No. 564, 11-8-10)

14.75.050 Compliance with recycling plan.

A. Documentation. Prior to receiving a certificate of occupancy for the project, the applicant shall submit to the recycling plan compliance official documentation that the diversion requirement for the project has been met. The diversion requirement shall be that the applicant has diverted at least fifty sixty-five percent of the total construction and demolition debris generated by the project via reuse or recycling, unless the applicant has been granted an infeasible exemption pursuant to Section 14.75.060 of this chapter, in which case the diversion requirement shall be the maximum feasible diversion rate established by the recycling plan compliance official for the project. This documentation shall include all of the following:

1. Completed C&D disposal report and Rr receipts from the vendor or facility which collected or received each material showing the actual weight or volume of that material;
2. A copy of the previously approved recycling plan for the project adding the actual volume or weight of each material diverted and landfilled;

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3. Any additional information the applicant believes is relevant to determining its efforts to comply in good faith with this chapter.
- B. **Weighing of Wastes.** Applicants shall make reasonable efforts to ensure that all construction and demolition debris diverted or landfilled are measured and recorded using the most accurate method of measurement available. To the extent practical, all construction and demolition debris shall be weighed by measurement on scales. Such scales shall be in compliance with all regulatory requirements for accuracy and maintenance. For construction and demolition debris for which weighing is not practical due to small size or other considerations, a volumetric measurement shall be used. For conversion of volumetric measurements to weight, the applicant shall use the standardized conversion rates approved by the eCity for this purpose.
 - C. **Determination of Compliance.** The recycling plan compliance official shall review the information submitted under Section 14.75.050(A) and determine whether the applicant has complied with the diversion requirement, as follows:
 1. **Full Compliance.** If the recycling plan compliance official determines that the applicant has fully complied with the diversion requirements applicable to the project, he or she shall approve the recycling plan and inform the building division that a certificate of occupancy can be issued.
 2. **Substantial Compliance.** If the recycling plan compliance official determines that the diversion requirement has not been achieved, he or she shall determine on a case-by-case basis whether the applicant has made a good faith effort and is in substantial compliance with this chapter.

In making this determination, the recycling plan compliance official shall consider the availability of markets for the construction and demolition debris landfilled, the size of the project, and/or the documented efforts of the applicant to divert construction and demolition debris. If the recycling plan compliance official determines that the applicant has made a good faith effort to comply with this chapter and is in substantial compliance, he or she shall approve the recycling plan and inform the building division that a certificate of occupancy can be issued.
 3. **Noncompliance.** If the recycling plan compliance official determines that the applicant is not in substantial compliance with this chapter, or if the applicant fails to submit the documentation required by Section 14.75.050(A), then the applicant shall pay a civil penalty as prescribed in Section 14.75.080 prior to the issuance of a certificate of occupancy.
 - D. **Falsification of Records.** If the applicant deliberately provides false or misleading data to the eCity in violation of this chapter, the applicant may be subject to penalties in addition to those specified in Section 14.75.080. In any civil enforcement action, administrative or judicial, the city shall be entitled to recover its attorneys' fees and costs from an applicant who is determined by a court of competent jurisdiction to have violated this chapter.
 - E. **Final Approval.** Prior to final approval by the building division all conditions of this chapter shall be met.
- (Ord. No. 564, 11-8-10)

14.75.060 Infeasible exemption.

- A. **Application.** If an applicant for a covered project experiences unique circumstances that the applicant believes make it infeasible to comply with the diversion requirement, the applicant may apply for an exemption at the time that he or she submits the recycling plan required under Section 14.75.030(A) of this chapter. The applicant shall indicate on the recycling plan the maximum rate of diversion he or she believes is feasible for each material and the specific circumstances that he or she believes make it infeasible to comply with the diversion requirement.
- B. **Meeting with Recycling Plan Compliance Official.** The recycling plan compliance official shall review the information supplied by the applicant and may meet with the applicant to discuss possible ways of meeting

the diversion requirement. Based on the information supplied by the applicant and, if applicable, San Luis Obispo county integrated waste management authority staff or designee, the recycling plan compliance official shall determine whether it is possible for the applicant to meet the diversion requirement.

- C. Granting of Exemption. If the recycling plan compliance official determines that it is infeasible for the applicant to meet the diversion requirement due to unique circumstances, he or she shall determine the maximum feasible diversion rate for each material and shall indicate this rate on the recycling plan submitted by the applicant. The recycling plan compliance official shall return a copy of the recycling plan to the applicant marked "Approved for Infeasible Exemption" and shall notify the building division that the recycling plan has been approved.
- D. Denial of Exemption. If the recycling plan compliance official determines that it is possible for the applicant to meet the diversion requirement, he or she shall so inform the applicant in writing. The applicant shall have thirty days to resubmit a recycling plan form in full compliance with Section 14.75.030(A) of this chapter. If the applicant fails to resubmit the recycling plan, or if the resubmitted recycling plan does not comply with Section 14.75.030(A) of this chapter, the recycling plan compliance official shall deny the recycling plan in accordance with Section 14.75.040(B) of this chapter.

(Ord. No. 564, 11-8-10)

14.75.070 Appeals.

- A. Contents of Appeals. An appeal of the recycling plan compliance official decision may be made to the ~~public services~~Community Development ~~Director~~ in writing not longer than ten days after the compliance official's decision. The decision of the ~~public services~~Community Development ~~Director~~ shall be final. The appellant must specifically state in the notice of appeal:
 - 1. The name and address of the appellant and appellant's interest in the decision;
 - 2. The nature of the decision appealed from and/or the conditions appealed from;
 - 3. A clear, complete, but brief statement of the reasons why, in the opinion of the appellant, the decision or the conditions imposed were unjustified or inappropriate; and
 - 4. The specific facts of the matter in sufficient detail to notify the ~~e~~City. The appeal shall not be stated in generalities.
- B. Acceptance of Appeal. An appeal shall not be accepted by the ~~public services~~Community Development ~~Director~~ unless it is complete.

(Ord. No. 564, 11-8-10)

14.75.080 Civil penalties.

- A. Civil Penalty. If the recycling plan compliance official, or on upon appeal, the ~~public services~~Community Development ~~Director~~ determines that an applicant is in noncompliance as described in Section 14.75.050(C)(3), the applicant shall pay a civil penalty in the amount ~~calculated as two percent of the total project valuation of \$500 for residential projects, and \$1,000 for commercial projects.~~ Until the civil penalty is paid, the building division may withhold a certificate of occupancy. ~~In order to provide adequate education to applicants of this chapter and allow time for them to become familiar with the necessary requirements, enforcement of the civil penalty shall not occur until twelve months after the effective date of this chapter.~~
- B. Enforcement. The ~~e~~City ~~a~~Attorney is authorized to bring a civil action in any court of competent jurisdiction to recover such civil penalties for the ~~e~~City of Morro Bay.

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(Ord. No. 564, 11-8-10)

14.75.090 Severability.

If any subdivision, paragraph, sentence, clause, or phrase of the this chapter is, for any reason, held to be invalid or unenforceable by a court of competent jurisdiction, such invalidity or unenforceability shall not affect the validity or enforcement of the remaining portions of this chapter, or any other provisions of the eCity's rules and regulations. It is the city's express intent that each remaining portion would have been adopted irrespective of the fact that any one or more subdivisions, paragraphs, sentences, clauses, or phrases be declared invalid or unenforceable.

(Ord. No. 564, 11-8-10)



AGENDA NO: 6.e

MEETING DATE: April 28, 2026

Staff Report

TO: Honorable Mayor and City Council

DATE: April 20, 2026

FROM: Daniel McCrain, Fire Chief

SUBJECT: Equipment donation from the Friends of the Morro Bay Fire Department

RECOMMENDED ACTION

Accept the donated equipment from the Friends of the Morro Bay Fire Department and authorize the City Manager to execute the Donation Agreement.

ALTERNATIVES

None, donation offer complies with the City's Donation Policy as established by Resolution No. 61-19.

FISCAL IMPACT

The value of donated equipment totals \$5,271.61 for three (3) UE Scope 2 VL460 Video Laryngoscopes with required accessories.

BACKGROUND

The Morro Bay Fire Department received a donation of three (3) UE Scope 2 VL460 Video Laryngoscopes with required accessories that was purchased by the Friends of the Morro Bay Fire Department in April 2026. This equipment will only be by licensed Paramedic Fire Department staff. These video laryngoscopes will be used for advanced airway placement by Paramedics to support lifesaving care of a patient. The video laryngoscopes are useful in locating the airway in patients with difficult anatomy, trauma, blood or other obstructions leading to increased success rated in placing an advanced airway.

The Friends of the Moro Bay Fire Department board made a request for a release of liability for the donated equipment. The Friends of the Morro Bay Fire Department is a 501(c)(3) Non-Profit organization whose mission is,

1. To establish and maintain an association of persons interested in public safety;
2. To focus public attention on fire safety, services, facilities and needs;
3. To support and cooperate with the Morro Bay Fire Department to enhance safety, services, and facilities for the community;
4. To stimulate gifts, endowments, and bequests.

Prepared By: DM

Dept Review: DM

City Manager Review: JC

City Attorney Review: BS___

In support of this mission the Friends of the Morro Bay Fire Department has generously donated these valuable pieces of equipment to the Fire Department and the community of Morro Bay. Providing a release of liability for these donated items will help to ensure the Friends of the Morro Bay Fire Department will be able to continue making donations of valuable and much needed equipment to the Morro Bay Fire Department in the years to come without assuming unnecessary liability which may preclude future donations. This action is also consistent with the City's Donation Policy established by [Resolution 61-19](#) which requires City Council approval to accept donations exceeding \$5,000.



ATTACHMENT(S)

1. Friends of MB Fire Dept Donation Acceptance Agreement Video Laryngoscopes

DONATION AGREEMENT
BY THE FRIENDS OF THE MORRO BAY FIRE DEPARTMENT
TO THE CITY OF MORRO BAY

THIS AGREEMENT is made and entered into this 28 day of April, 2026, and is effective as of the 28 day of April, 2026 (“Agreement”), by and between the CITY OF MORRO BAY, a municipal corporation of the State of California (hereinafter GRANTEE and “City”), and FRIENDS OF THE MORRO BAY FIRE DEPARTMENT, a California nonprofit corporation, (hereinafter GRANTOR).

WITNESSETH

WHEREAS, GRANTEE provides emergency response for the whole community of Morro Bay; and

WHEREAS, the UE Scope 2 VL460 Video Laryngoscopes and required accessories are intended to support public safety; and

WHEREAS, the Fire Department has not had sufficient funds to purchase this specialty equipment; and

WHEREAS, GRANTOR is a not-for-profit community group established to help improve the Fire Services in Morro Bay; and

WHEREAS, GRANTOR desires to assist GRANTEE by purchasing and donating the UE Scope 2 VL460 Video laryngoscopes and required accessories; and

NOW, THEREFORE, THE PARTIES AGREE, as follows:

1. Subject to the terms of this Agreement, on or before April 28, 2026, GRANTOR agrees to donate to GRANTEE a quantity of three (3) UE Scope 2 VL460 Video Laryngoscopes and required accessories for use by the Fire Department and the City, with consideration to GRANTOR that GRANTEE’S use of the equipment furthers GRANTOR’S established goal of improving public safety in Morro Bay.
2. GRANTOR agrees that the UE Scope 2 VL460 Video Laryngoscopes and required accessories donated shall be the sole and separate property of City.
4. Neither GRANTOR nor GRANTEE may assign any rights or obligations created by this Agreement to any other person without the prior written approval of the other party.

5. The terms and conditions of this Agreement can only be amended in writing approved and signed by GRANTOR and GRANTEE.

6. MISCELLANEOUS PROVISIONS

A. The Caption

The captions of the various sections, paragraphs, and subparagraphs of the Agreement are for convenience only and shall not be considered nor referred to for resolving questions of the interpretation.

B. No Third Party Beneficiary

This Agreement shall not be construed or deemed to be an Agreement for the benefit of any third party or parties, and no third party shall have any claim or right of action hereunder for any cause whatsoever.

C. Severability Clause

In case any one or more of the provisions contained herein shall, for any reason, be held invalid, illegal, or unenforceable in any respect, it shall not affect the validity of the other provisions which shall remain in full force and effect.

D. No Pledging of GRANTEE'S Credit

Under no circumstances shall GRANTOR have the authority or power to pledge the credit of GRANTEE or incur any obligation in the name of GRANTEE.

E. Venue

This Agreement shall be interpreted, construed and governed both as to validity and to performance of the parties in accordance with the laws of the State of California. Legal actions concerning any dispute, claim or matter arising out of or in relation to this Agreement shall be instituted in the Superior Court of the County of San Luis Obispo, State of California, or any other appropriate court in such county, and GRANTOR covenants and agrees to submit to the personal jurisdiction of such court in the event of such action. In the event of litigation in a U.S. District Court, venue shall lie exclusively in the Central District of California, in the County of San Luis Obispo, State of California.

H. Non-liability of GRANTOR Officers and Employees

No officer or employee of GRANTOR shall be personally liable to the GRANTEE, or any successor in interest, in the event of any default or breach by GRANTOR or for any amount which may become due to GRANTOR or to its successor, or for breach of any obligation of the terms of this Agreement.

I. Interpretation

The terms of this Agreement shall be construed in accordance with the meaning of the language used and shall not be construed for or against either party by reason of the authorship of this Agreement or any other rule of construction which might otherwise apply.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first herein above set forth.

City of Morro Bay

Friends of the Morro Bay Fire Department

John Craig, City Manager

Mike Groves, President

Elaine Giannini, Secretary

APPROVED AS TO FORM:

Brian Stack, City Attorney

ATTEST:

Dana Swanson, City Clerk



AGENDA NO: 8.a

MEETING DATE: April 28, 2026

Staff Report

TO: Honorable Mayor and City Council **DATE:** April 14, 2026
FROM: Airlin Singewald, Community Development Director
SUBJECT: Offshore Wind Operations and Maintenance Infrastructure Study – Morro Bay

RECOMMENDED ACTION

Receive and file the attached Offshore Wind Operations and Maintenance (O&M) Infrastructure Study.

ALTERNATIVES

None.

FISCAL IMPACT

The City incurred staffing expenses by attending meetings with the County and their consultant (Mott MacDonald) during preparation of the operations and maintenance (O&M) infrastructure study. To offset this expense, the County allocated \$127,675 in State grant funds to the City. The City Council approved a sub-recipient agreement with the County on September 18, 2024 to accept these funds.

BACKGROUND / DISCUSSION

The County of San Luis Obispo received a \$1 million earmark in the 2022 State budget to study offshore wind (OSW) infrastructure along the Central Coast. On September 10, 2024, the County allocated these funds by approving a \$684,750 contract with engineering firm Mott MacDonald to prepare two operations and maintenance (O&M) infrastructure studies: one for Morro Bay and one for San Luis Bay. The remaining \$315,250 was distributed to Port San Luis, Cal Poly, and the City of Morro Bay to support staff time associated with the study.

Using this State grant, the County retained Mott MacDonald to evaluate the feasibility of developing an O&M facility in Morro Bay. Mott MacDonald and County staff will attend the April 28, 2026 City Council meeting to present the study's findings in person. City staff will briefly introduce the item, including key takeaways from City staff perspective.

The study serves as an informational resource, describing what a potential O&M facility in Morro Bay could look like, outlining the regulatory process required to establish one, and identifying key constraints that would need to be addressed. It is intended to help inform the City and the public in the event that an OSW development proposal is submitted in the future.

Importantly, the City has not received any proposals from OSW developers and has not engaged in recent discussions with them regarding potential port facilities in Morro Bay. Any future application for OSW infrastructure would require detailed analysis and extensive community engagement.

Prepared By: AS/CM

Dept Review: AS

City Manager Review: JC

City Attorney Review: BS

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The study focuses primarily on potential improvements to the harbor and waterfront needed to support OSW operations, including vessels, office space, and staging areas. For example, it evaluates options such as rebuilding the northern T-pier to accommodate berths for 300-foot service operating vessels (SOVs) and 90-foot crew transfer vessels (CTVs), as well as widening the navigation channel to meet vessel turning requirements. The study does not address other components such as cable landings, grid connections, or fueling infrastructure.

Two “least constrained” development alternatives are identified in the study. One option would provide support for three OSW developers, with waterfront capacity for two developers simultaneously. Meanwhile, a “split location” alternative would accommodate one developer in Morro Bay, with a second potentially locating at Port San Luis or another port. However, the Morro Bay study concludes that even these least constrained options would face significant regulatory, environmental, and community acceptance challenges, and may ultimately prove infeasible for Morro Bay.

Key Takeaways

The following are City staff’s key takeaways from the O&M study:

1. The study confirms that even the “least constrained” alternative would face significant hurdles and may not be feasible from a regulatory, environmental, and community acceptance perspective.
2. The City would maintain significant land use local control over development of an O&M facility. An application for OSW infrastructure development would currently be subject to the City’s zoning ordinance, General Plan, and any applicable ballot initiatives restricting land uses. The Coastal Commission’s Coastal Development Permit authority over OSW facilities does not preempt the City’s local land use control, permitting requirements, or ballot initiatives (e.g., A-24, or Measure D).
3. If an application is submitted for OSW development in the future, significant community engagement (including public workshops prior to application submittal) would be essential to evaluate feasibility from a community acceptance standpoint.
4. While a potential O&M facility may have economic benefits for the City, such as job creation and revenue enhancements, if an application is submitted in the future, these benefits should be weighed against opportunity costs and increased expenses associated with O&M infrastructure on the waterfront.

CONCLUSION

In summary, the O&M study provides a conceptual assessment of what offshore wind O&M infrastructure in Morro Bay could entail, but it does not propose or advance any specific project. While it identifies potential opportunities, it also underscores substantial regulatory, environmental, and community considerations that would need to be carefully evaluated. Should a proposal be submitted in the future, it would require thorough analysis, adherence to local land use authority, and robust public engagement to determine whether such development aligns with community priorities.

ATTACHMENT(S)

1. Central Coast Offshore Wind O&M Infrastructure Study – Morro Bay (Mott MacDonald; April 2026)



Central Coast Offshore Wind O&M Infrastructure Study

Final Report - Morro Bay

April 2026

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Mott MacDonald
1601 5th Avenue
Suite 800
Seattle
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United States of America

T +1 (206) 838 2886
mottmac.com

Central Coast Offshore Wind O&M Infrastructure Study

Final Report - Morro Bay

April 2026

Issue and revision record

Revision	Date	Originator	Checker	Approver	Description
0	12/05/25	SC, BF	CP	KP	Draft Submission
1	04/16/26	SC, BF, EM	CP	AP	Final Submission

Document reference:

This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

This document contains confidential information and proprietary intellectual property. It should not be shown to other parties without consent from us and from the party which commissioned it.

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Executive summary

As part of the 2022 State budget, San Luis Obispo County was awarded \$1 million for a “Deep-Water Port Feasibility Study for Offshore Wind Procurement.” The funds were used for the development of two studies, one for Morro Bay and one for San Luis Obispo Bay, which evaluate the technical suitability of the two locations for potential offshore wind (OSW) operations and maintenance (O&M) facilities to serve projects in the Morro Bay Wind Energy Area (MBWEA). In an earlier study, the AB 525 Port Readiness Plan by Lim and Trowbridge (2023) prepared for the California State Lands Commission, Morro Bay and San Luis Obispo Bay were identified as appropriate candidates.

This study furthers the evaluation of Morro Bay (the San Luis Obispo Bay study is under separate cover) as a potential O&M facility location. It performs site specific comparisons of the likely requirements an OSW O&M facility with the conditions and constraints within the Bay. Examples of potential modifications or additions to waterfront infrastructure that may be required to meet OSW facility requirements have also been included. The study was developed in coordination with a Study Team consisting of representatives from the County of San Luis Obispo and the City of Morro Bay Community Development and Harbor Department.

It is important to note that the Study Team evaluation of OSW O&M facility concept designs included in the study does not signify a Study Team representative's personal or organizational support or objection for the conceptual design or the development of an OSW O&M facility, nor does the report intend to promote or support offshore wind development or related facilities. Instead, the study presents conceptual information about the specific functional requirements for a potential OSW O&M facility, what could be accommodated within Morro Bay, and what modifications would likely be necessary in the design and agency review of an application to develop an O&M facility at Morro Bay. Currently, no land use applications have been submitted for the development of an OSW O&M facility in Morro Bay. If an O&M facility is proposed in the future, it would be subject to detailed project-level analysis and public review. This study, however, provides useful information should such an application ever be submitted.

Offshore Wind O&M Base description

Unlike a Staging and Integration (S&I) facility, an OSW O&M facility is typically limited to a dock and loading space for support vessels as well as nearby offices and warehousing for maintenance activities and storage of weather sensitive components. Based on similar facilities and initial conversations with the Morro Bay Wind Energy Area (MBWEA) offshore wind developers, an OSW O&M fleet for a single lease area in the MBWEA would be anticipated to include one (1) large offshore Service Operations Vessel (SOV) and optionally one (1) small Crew Transfer Vessel (CTV).

As an O&M facility in this region could service any or all the three (3) lease areas, this study first considered a concept design suitable for a maximum of three (3) SOVs and three (3) CTVs.

The study later considered a Split-Location approach, whereby the Morro Bay site would only be expected to service one (1) developer with one (1) SOV, and one (1) CTV. Under this scenario, Morro Bay would accommodate a second OSW developer's SOV and CTV, and it is assumed the third developer would be located out of the area.

CTVs are assumed to be up to 90ft in length and are typically used for shuttling personnel and minor supplies on a daily basis from the O&M facility to the lease area.

SOVs are assumed to be up to 300ft in length and typically remain offshore for extended periods of time (assumed 1 - 2 weeks) performing inspections and maintenance, activities before returning to the O&M facility for a short turnaround (assumed 24hrs). Exact schedules would be subject to the OSW developers' O&M model. Whilst the berths are vacant, developers would be expected to utilize the wharf to stage equipment for the next scheduled vessel call.

Study Approach

This study consists of a desktop assessment of the likely minimum functional requirements for a successful O&M facility, a site visit to assess the condition of the existing infrastructure as well as discussion with the City of Morro Bay and the Harbor Department to understand how an O&M facility may affect their activities and existing public uses. This study methodology included:

1. Identification of minimum functional requirements for an O&M facility and development of Basis of Assessment criteria.
2. Development of conceptual designs which satisfy the Basis of Assessment.
3. Collaborative multi-criteria assessment of concept design alternatives to assess concept options by:
 - a. Functional performance including mooring loading and weather downtime options
 - b. Environmental and permitting constraints
 - c. Potential effects to the community
 - d. Likely capital cost

Basis of Assessment

The Basis of Assessment for this study identified existing site conditions of the bay such as bathymetry, wind, and wave data, and considered information and data from relevant previous studies. Informal interviews with likely stakeholders, such as an O&M facility developer and OSW developers, were conducted to refine assumptions related to operating details of an O&M facility. Minimum functional requirements were identified for berthing and navigation of design vessels, quayside operations, and upland support facilities.

The following key conditions were refined throughout the process and collectively agreed upon by all parties present:

- Development should be focused on the North T-Pier, rather than both T-Piers.
- Development should take the form of a T-pier to respect the local fabric of the waterfront.
- The T-Pier should be at least partially publicly accessible.
- T-Pier development should be respectful to neighboring lease sites, recreational areas, local businesses, and restaurants by keeping O&M activities to the north side of the North T-Pier.
- Layouts should avoid partitioning sections of the promenade and harbor-walk for secure access.
- U.S. Coast Guard (USCG) and Morro Bay Harbor Department to be kept at or near the North T-Pier. Secured access would be preferred by USCG.
- Development should be respectful to the Commercial Fishing intent of the Measure D area and minimize impacts on the industry's operations.
- Development should be respectful to Measure A-24. Under this measure, any future changes to the land use designations in the affected area require approval by a majority vote of city residents (Morro Bay 2024).

- The Study Team agreed on these conditions for the purposes of this concept level review. If a project is proposed in the future, these conditions could be re-evaluated based on project-specific information and public input.

Environmental and Permitting Constraints

Rincon Consultants, Inc. (Rincon) provided input on the development of the various design concepts and shared environmental planning, resource, land use and permitting constraints for the Study. Rincon's Environmental Constraints and Feasibility Analysis Report (report) analyzed the least constrained alternatives and locations for an OSW O&M facility located in Morro Bay (Appendix B). The report identifies, evaluates, and provides a technical analysis of the environmental planning, resource, and permitting constraints related to the least constrained concept designs and includes details on responsible parties, permit requirements, approval processes, timelines, and estimated costs.

Any new development on the waterfront would need to be consistent with the City's General Plan and Zoning Code. A primary constraint of an O&M facility from a permitting standpoint is the potential for such a project to be inconsistent with the City's General Plan and Zoning Code. The City's recently updated 2021 General Plan envisions a sustainable, vibrant, and accessible waterfront. The City is updating its 1996 Waterfront Master Plan to create a roadmap to implement this vision. In 2024, the City rezoned key waterfront properties (e.g., the power plant property) from 'industrial' to 'visitor-serving commercial.'

A project would not be able to proceed with the processing of a Coastal Development Permit, until it can be found consistent with the General Plan or until the General Plan is amended to allow for the proposed development. A change to the General Plan for this portion of the waterfront would require voter approval, per a 2024 ballot initiative (A-24).

Potential Effects on the Community

The North and South T-Piers at Morro Bay are currently used by the Harbor Department, U.S. Coast Guard (USCG), U.S. Fish & Wildlife Service, the fishing industry, and for boat moorage, and storage. Adjacent to the North T-Pier is a fishing wharf, used for offloading catch and equipment, and businesses on City lease sites.

The impact that an O&M facility could have can be separated into short term and long-term benefits, changes in use, and localized resource impact. Short-term benefits may include local job opportunities and investment due to construction-related activities. Short-term negative impacts may include public inconveniences and environmental impacts due to construction, such as local noise, traffic management, dredging, and temporary increases in construction traffic.

Long-term benefits of a successful project may include:

- Investment to repair and maintain T-pier(s).
- Reduced maintenance costs for City of Morro Bay, due to cost sharing with OSW tenants.
- Potentially safer navigation for vessels due to dredging of the navigation channel resulting in less shoaling and potentially reduced wave heights propagating through the harbor breakwater.
- Additional beach nourishment from dredging operations, protecting bird habitats at Morro Rock Beach.
- Potential investment for coastal protection upgrades within the bay.

- Improvements to public facilities augmented by the new facility, such as the Harbor Department office, a new boat lift (if required for CTVs), and additional fueling or powering facilities.
- Job creation to service the O&M facility and potential supply chain business opportunities to fabricate serviceable offshore wind components.

Pro-active community engagement would be a critical component for a viable project, to maximize the potential community benefits whilst reducing the potential for long-term negative impacts to Morro Bay's character and identity. Identified community considerations included the following:

- Changes to the viewscape and character of the bay due to new marine infrastructure and moorage of large vessels.
- Additional Heavy Goods Vehicle movements expected to transfer service components to and from the OSW O&M facility on the waterfront.
- Additional commercial and industrial operations in the bay may impact the character of the city and waterfront.
- Wave conditions through the inlet may improve due to dredging of the navigation channel. Improvements to navigational safety could speculatively lead to the USCG surf station being converted to a security station or other mission. This change may affect the USCG vessel mix, berthing, and facility requirements. However, without wave modelling and without formal coordination with the USCG, it remains unclear whether these changes in wave conditions and station designation would occur.
- The waterfront area between Beach Street and Coleman Park is heavily used for commercial and recreational fishing, kayaking, boat tours, sporting events, and sightseeing. These uses play a major role in sustaining Morro Bay's economy and help define the community's character. Any O&M facility in this area would need to be designed to maintain coastal access for these activities while preserving Morro Bay's distinctive character.

Cost

Costs were estimated for the waterfront infrastructure only and excluded any potential costs for environmental mitigation, upland development, or costs to relocate or compensate businesses.

Construction cost estimates for the least constrained concept designs were estimated to be approximately \$130-140 million, however may be in the range of \$90-210 million according to the Advancement of Cost Estimating's Class V cost estimate scheme (-50% to +100%) for concept-level assessments.

Construction cost estimates for the Split-Location concept design (one developer at Morro Bay, one developer at San Luis Obispo Bay, and one developer located out of the area) were estimated to be approximately \$114-\$122 million, but may be in the range of \$80-183 million according to the Advancement of Cost Estimating's Class V cost estimate scheme (-50% to +100%) for concept-level assessments.

Study Recommendations

An O&M facility located on the Morro Bay waterfront would present several inconsistencies with the City's General Plan and Zoning Code. Despite this, the existing waterfront infrastructure at Morro Bay has the physical characteristics needed to support the development of an O&M facility to service the OSW industry. This is due to key factors such as the presence of an existing channel and the availability of industrial land parcels with waterfront access that make development a viable option.

The existing infrastructure was assessed for reuse viability for an OSW O&M facility. Due to the expected size of vessels and loading required for O&M activities, the existing T-Piers at Morro Bay were found to be likely unsuitable for reuse or modification for O&M requirements. As such, an O&M facility would likely require a new marine structure, sized to support the required number of SOV(s) and CTVs.

Several concept designs which met the minimal functional requirements of an offshore wind O&M facility are included within this report. The concepts aimed to reduce environmental and permitting challenges and attempted to minimize the impact to existing infrastructure and community activities.

The study found that the reconstruction of the North T-Pier, as a purpose-built OSW O&M facility, would be technically viable from a construction perspective; however, such a development would face multiple challenges that would need to be resolved in the pursuit of sustainable development. The outstanding issues include the following:

- Potential inconsistency with the General Plan's vision for visitor-serving and commercial fishing waterfront.
- Environmental concerns due to the extent of dredging required, and the increase in maritime and road traffic.
- Potential local objection due to changes to the waterfront viewscape and local character. The loss of the historic wooden T-Pier and its appearance.
- Fueling arrangements (excluded from this study due to uncertainty on vessel fueling methods and potential for electrification).
- Onerous permitting process due to environmental impacts, impacts to a federal facility and the FNC channel, potential changes in zoning and Measure D, which aims to preserve the waterfront for 'commercial fishing uses' and 'visitor serving uses'.
- Relatively high capital investment costs due to the necessity to construct a new T-Pier to accommodate the expected vessel and equipment loads.
- The waterfront area between Beach Street and Coleman Park is heavily used for commercial and recreational fishing, kayaking, boat tours, sporting events, and sightseeing. These uses play a key role in sustaining Morro Bay's economy and help define the community's character. Any O&M facility in this area would need to be designed to maintain coastal access for these activities while preserving Morro Bay's distinctive character.

The extent and cost of the facility would be dependent on the number of OSW developers served by the facility. To address this uncertainty, this study has also considered a smaller facility which may support a single OSW developer, with an additional O&M facility to be constructed in San Luis Obispo Bay. For this scenario, it is assumed the third OSW developer would be located out of the region. This would marginally reduce the local impacts and the capital investment for the individual facility within Morro Bay but would increase the total capital costs required to serve the Morro Bay Wind Energy Area.

1 Introduction

Morro Bay Wind Energy Area is located approximately 20 miles offshore from the central California coastline and is comprised of three lease areas, OCS-P 0563, OCS-P 0564, and OCS-P 0565, as outlined by the Bureau of Ocean Energy Management (BOEM) in Figure 1.1. These lease areas are projected to provide a total installation capacity between 2.9 and 5.1 GW using floating offshore wind (OSW) technologies, sufficient to provide power to about 1 million homes (Lim & Trowbridge, 2023).

Marine facilities to support the Operations and Maintenance (O&M) requirements of the lease areas need to be identified and assessed to understand the level of effort required to convert existing infrastructure into an operational O&M hub, thus forming the basis of this study.

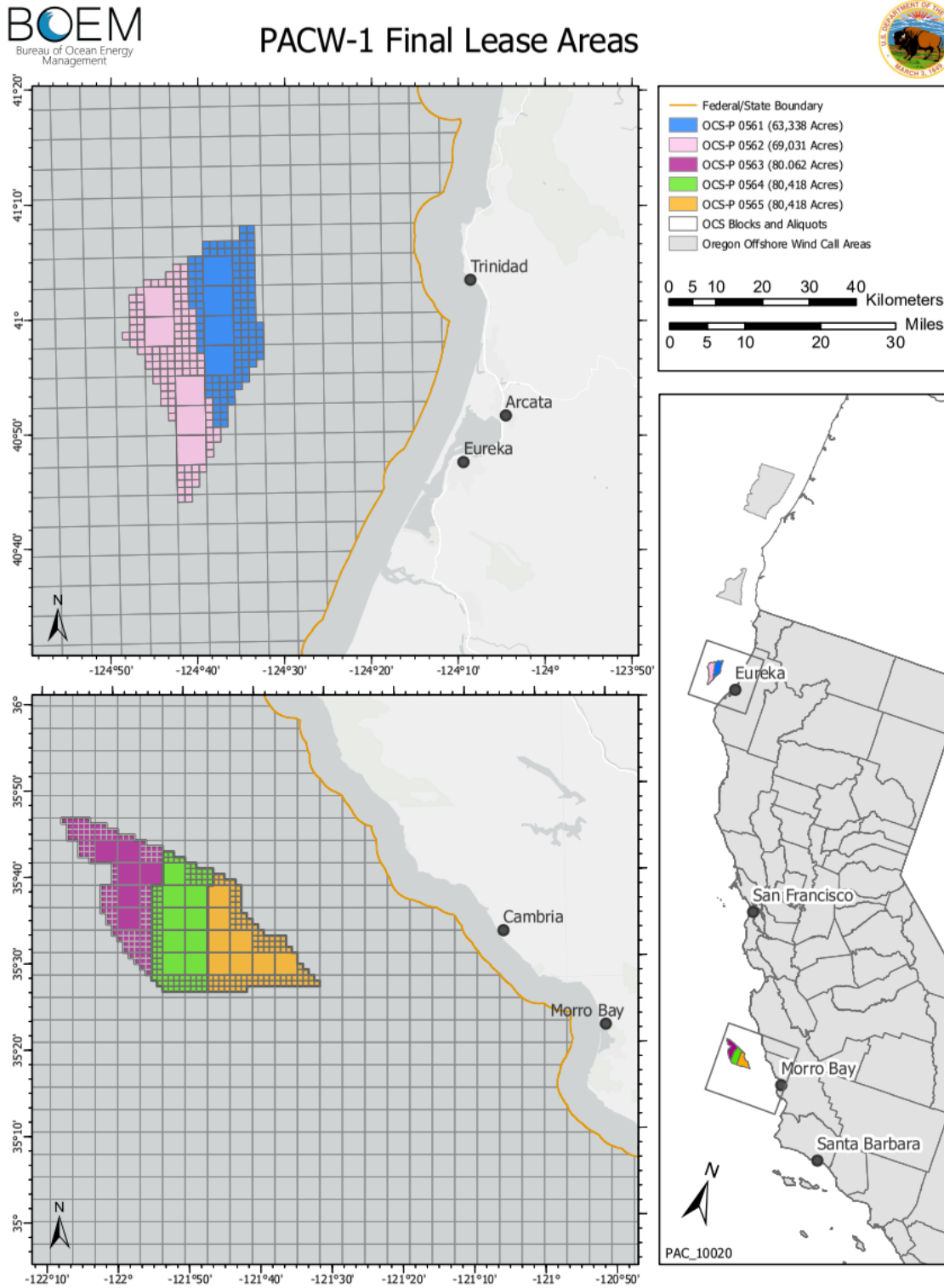
With close proximity to the Morro Bay Wind Energy Area, Morro Bay has been identified as a potential site to support the Offshore Wind (OSW) initiative as an Operations and Maintenance (O&M) facility for support vessels. O&M facilities are used as a base for technicians and engineers to travel to and from lease areas to restock supplies, crew members, and equipment for long-term maintenance support of the OSW facility. The facility is usually complemented by an upland area for staff offices and storage of repair and maintenance components.

This study aims to evaluate the technical suitability of Morro Bay to accommodate an OSW O&M facility. A combination of desktop studies, site visits, and a concept-level engineering analysis and design was used to provide a deeper understanding of the potential upgrades required to host O&M support functions.

The report contains the following sections (in chronological order):

- **Basis of Assessment:** Documents the assumptions to be used in the study and outline key functional requirements for O&M operations. Summarizes conditions and characteristics for existing waterfront infrastructure through desktop research and Morro Bay site visits.
- **O&M Waterfront Facility Concept Design:** Evaluates the Morro Bay waterfront for suitability for SOV berthing and develops high-level concept sketches and multi-criteria assessment (MCA) to identify the least constrained alternative. Presents concept drawings for site layouts and construction cost estimates.
- **Navigation & Dredging Assessment:** Compiles and contrasts different dredging techniques that could be used at Morro Bay. Identifies areas to be considered for dredging using vessel sizes and navigation requirements set forth in the Basis of Assessment. Provides concept-level estimates for dredge volumes and costs.
- **Environmental and Permitting Assessment:** Developed by Subconsultant, Rincon Consultants, Inc. (Rincon), this assessment identifies and maps environmental constraints for the impact assessment. Develops an environmental planning and permitting matrix, providing information on the likely permits required for an OSW O&M facility. The full report is attached within Appendix B.
- **Conclusions & Next Steps:** Summarizes findings and potential next steps.

Figure 1.1: Map of California Wind Lease Areas (BOEM, 2025)



2 Abbreviations and acronyms

Acronym	Description
AACE	Association for the Advancement of Cost Engineering
BoA	Basis of Assessment
BOEM	Bureau of Ocean Energy Management
CCC	California Coastal Commission
CDP	Coastal Development Permit
CEQA	California Environmental Quality Act
CSD	Cutter Suction Dredger
CTV	Crew Transfer Vessel
CY	Cubic Yard
FNC	Federal Navigation Channel
Ft	Feet
F&W	Fish & Wildlife
GW	Gigawatt
H&S	Health and Safety
LAT	Lowest Astronomical Tide
MBWEA	Morro Bay Wind Energy Area
MCA	Multi-Criteria Analysis
MLLW	Mean Lower-Low Water
NDBC	National Data Buoy Center
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
O&M	Operations and Maintenance
OSW	Offshore Wind
SLO	San Luis Obispo
SOV	Service Operations Vessel
TSHD	Trailing Suction Hopper Dredger
USACE	U.S. Army Corps of Engineers
USAV	U.S. Army Vessel
USCG	U.S. Coast Guard
USGS	U.S. Geological Survey

3 Basis of assessment

A Basis of Assessment (BoA) was developed to outline all study inputs, assumptions, and criteria necessary to facilitate the conceptual design of a potential O&M site. This section provides a brief overview of existing conditions and design criteria. A copy of the full BoA is provided in Appendix A.

3.1 Site conditions

3.1.1 Site location

The project site at Morro Bay is located along the northeastern shore of the Morro Bay Navy Channel and spans approximately 2100 feet between Coleman Park and the junction of Embarcadero and Beach Street.

Figure 3.1: Morro Bay project vicinity map



Source: Vantor, Earthstar Geographics

3.1.2 Existing marine infrastructure

Existing infrastructure along the shoreline is labelled within Figure 3.2 and detailed in the following sections.

Figure 3.2: Existing conditions and land use at Morro Bay Waterfront



Sources: Maxar, Microsoft

3.1.2.1 Access road

The project site is accessible via Embarcadero, the main road connecting the coastal town of Morro Bay to Morro Rock and parts of the city north of the navigation channel.

3.1.2.2 South T-Piers

The South T-Pier extends 256ft into the channel with a 250ft pier head. The structure was constructed in 1952 and later reconstructed in 1992 following a fire.

The T-Pier is supported by a mix of creosote treated timber piles, and steel piles. A 2016 condition assessment report (Shoreline Engineering, Inc, 2016) recommended significant repairs to the timber piles, deck, bracing, fender piles, and utilities.

There's an otter viewing area and nursery to the south of the T-Pier.

3.1.2.3 North T-Pier

The North T-Pier is located to the west of the Harbor Department Building and was constructed between 1942 and 1945. The T-Pier extends approximately 168ft into the channel and features a pier head with a berthing length of approximately 400ft.

Whilst the T-Pier is publicly accessible, the north section of the pier head is secured with chains, restricting public access to a shed and berthing slips owned by the U.S. Coast Guard (USCG). There are also floating pontoons owned by the Harbor Department. The typical vessel mix of local and federal vessels using the North T-Pier is detailed in Table 3.1.

Table 3.1 Typical vessel mix at the North T-Pier for Harbor Department, USCG and U.S. Fish & Wildlife Service

Boat	Assumed Dimensions	Harbor Department	USCG	U.S. Fish and Wildlife Service
Small	30 x 10 ft	5	0	0
Medium	50 x 15 ft	1	4	0
Large	70 x 30 ft	0	0	1

The North T-Pier was last inspected in 2023 (Brady, 2024), with recommendations to undertake repairs to utilities, piles, pile caps, fender piles, guide piles. The recommendations are unsurprising for a structure of its kind and age, approaching end of life.

3.1.2.4 Marina

The marina and associated finger piers are owned by the City of Morro Bay Harbor Department and are present along the waterfront, offering moorage space for local fishing boats, vessels, and tour boats.

3.1.2.5 Fueling facility

A fueling facility (Figure 3.3) is present to the South of the junction between Embarcadero and Beach Street. The tank and berth for which is sized suitably for the existing vessel mix in the marina.

The largest vessel served at the facility is the Yaquina dredger with a length of 200 feet. These infrequent fueling events require special berthing arrangements, blocking adjacent docks. Due to the large capacity of the vessel fuel tanks, it needs to be fueled directly from fuel tankers. This fueling arrangement would not satisfy design standards for the O&M facility and would be unsuitable for fueling SOVs (up to 300ft in length). However, fueling is not addressed in the study due to uncertainty of vessel fueling methods and potential for vessel electrification.

Figure 3.3: Photos of the fueling facility at Morro Bay



Source: Mott MacDonald, 2024



Source: Mott MacDonald, 2024

3.1.2.6 Shoreline protection

Adjacent to the USCG and Harbor Department, the shoreline protection takes the form of a concrete capped revetment (Figure 3.4), and was generally observed in a poor condition.

To the north of the Vistra waterfront property (pump intake building), the shoreline appears to be cliffing from erosion next to the public beach (Figure 3.6).

To the west of the beach, Coleman Park is protected by a rock revetment (Figure 3.6), which was observed to be in a generally poor condition.

Figure 3.4: Photo of the shoreline protection adjacent to USCG and Harbor Dept.



Source: Mott MacDonald, 2024

Figure 3.5: Photo of the rock revetment protecting Coleman Park



Source: Mott MacDonald, 2024

3.1.2.7 Public beach

The public beach (Figure 3.6) is located on the north side of the Vistra waterfront property (pump intake building). The beach is well used by locals and tourists for recreational use and serves as a location to launch kayaks and paddle boards into the bay.

There is a much larger public beach (Morro Rock Beach), located to the north of Morro Rock.

Figure 3.6: Public beach at Morro Bay



Source: Mott MacDonald, 2024

3.1.2.8 Waterfront buildings and structures:

The Morro Bay waterfront is primarily used by restaurants, offering views over the Bay and Morro Rock. To the south of the beach lies the Vistra Waterfront Property and Pump Intake Building (Figure 3.9) associated with the Morro Bay Power Plant. To the south of the Vistra Waterfront Property lies the Morro Bay Oyster Company, and the nearby administrative buildings occupied by the U.S. Coast Guard (Figure 3.8) and Harbor Department (Figure 3.7). Waterfront buildings between the two T-Piers are primarily used by restaurants, fishing charters, local cruise and tour operators, and commercial fishing.

Figure 3.7: City of Morro Bay Harbor Dept.



Source: Mott MacDonald, 2024

Figure 3.8: USCG Surf Station



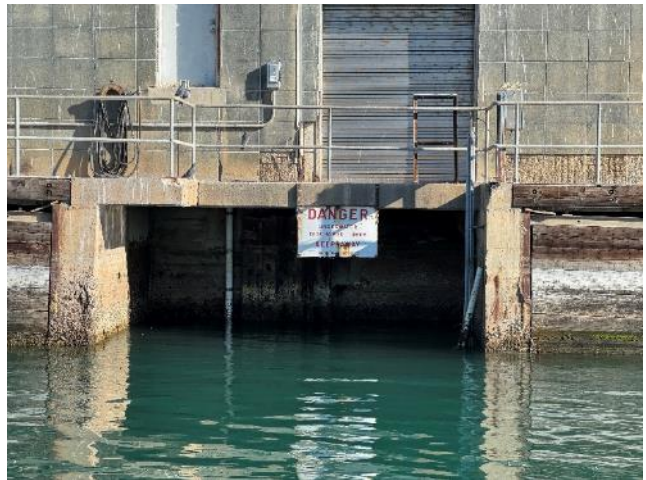
Source: Mott MacDonald, 2024

Figure 3.9: Vistra Pump Intake Waterfront Property



Source: Mott MacDonald, 2024

Figure 3.10: Power station pump intake



Source: Mott MacDonald, 2024

3.1.3 Environmental conditions

3.1.3.1 Tidal datums

Tidal datums at Morro Bay have been obtained from the neighboring Port San Luis Gauge Station (ID: 9412110) managed by National Oceanic and Atmospheric Administration (NOAA) as the difference in tidal levels at the study site and the gauge station is negligible for the purpose of this study. All water levels are in feet relative to mean lower-low water (MLLW) of the 1983-2001 tidal epoch.

Table 3.2: Tidal datums at the project location

Datum	Abbreviation	Elevation [ft MLLW]
Highest Astronomical Tide	HAT	7.10
Mean Higher High Water	MHHW	5.33
Mean High Water	MHW	4.62
Mean Sea Level	MSL	2.80
Mean Low Water	MLW	1.04
North American Vertical Datum of 1988	NAVD88	0.08
Mean Lower Low Water	MLLW	0.00
Lowest Astronomical Tide	LAT	-1.99

3.1.3.2 Currents

In lieu of accurate current records, current velocities were approximated in the navigation channel by recording the time needed for a semi-submersible float to pass a fixed distance of 100m (328ft) at peak ebb tides. Measurements were taken on a spring tide and repeated five times for each of the three locations marked in Figure 3.11.

Whilst the estimated current results should be seen as indicative only, the current speeds measured along the Morro Bay Channel were relatively high, reaching 1.9 knots near the South T-Pier (Location 3) and the narrow channel section between Morro Rock and the sand spit (Location 1). Current velocities near the North T-Pier (Location 2) were slightly lower, measuring 1.2 knots.

Figure 3.11 Current velocity measurement locations. (1 – Between Morro Rock and Sand Spit, 2 – North T-Pier, 3 – South T-Pier)



Sources: Maxar

3.1.3.3 Winds

Representative wind speeds at Morro Bay have been compiled by NOAA's National Data Buoy Center (NDBC), from the neighboring Port San Luis Station (ID: PSLC1) and Cal Poly Pier Station (ID: CPXC1). It was noted the local Morro Bay Station (ID: MBXC1) did not have any wind-related measurements available at the time of the study. The considered wind records were adjusted to a 60-minute average wind speed at an elevation of 32.8ft above site elevation.

Data for the wind stations suggest that wind speeds are generally less than 10 knots but may exceed 30 knots in storm conditions. The strongest winds usually blow landward from the West or Northwest directions.

3.1.3.4 Waves

Waves approaching Morro Bay are mainly comprised energetic swells originating from the Pacific Ocean. The existing U.S. Army Corps of Engineers (USACE) breakwaters provide good protection for Morro Bay and the navigation channel; however swells may occasionally pass through the channel opening and propagate upstream. Vessel access through the channel may be restricted by the USCG in times where the swell-tidal combination is unsafe for recreational vessels.

The inner reaches of the navigation channel are further protected by the sand spit and are less vulnerable to incoming waves.

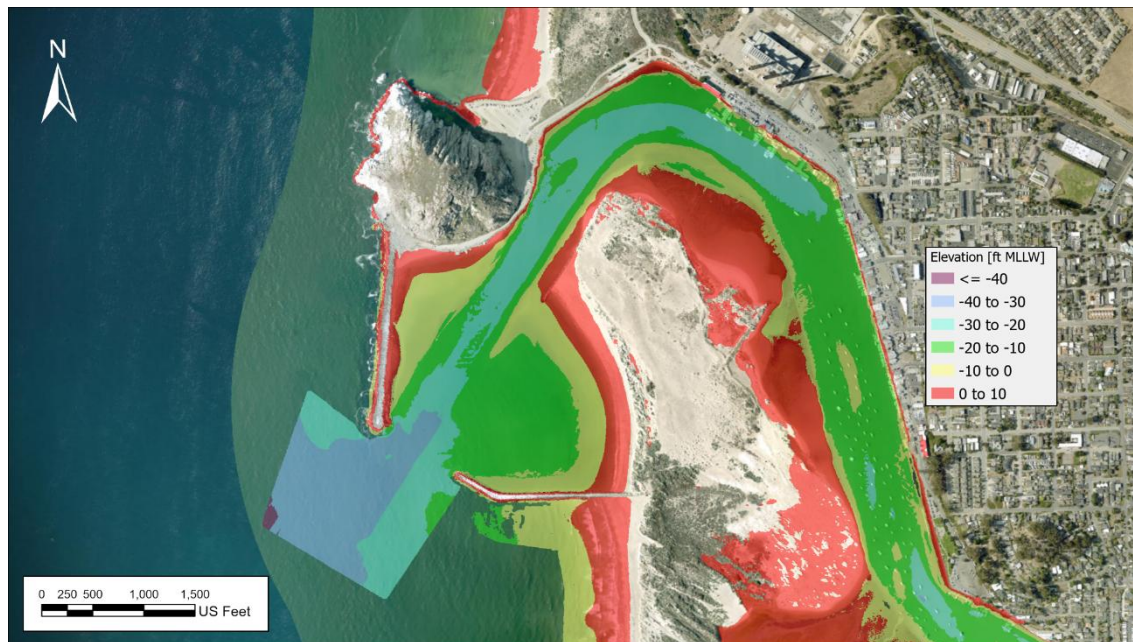
3.1.4 Bathymetry

Publicly available topographic and bathymetric datasets near the study site have been evaluated to support subsequent analysis and design processes. A basemap was created utilizing datasets listed in Table 3-3.

Table 3-3 – Topographic and bathymetric data sources

Dataset	Originator	Date
2024 Hydrographic Survey	USACE	Published in 2024.
2022 NOAA Topobathy Lidar DEM: Morro Bay, CA	NOAA	Data acquired in 2022.
2019 NOAA Topobathy Lidar: Morro Bay, CA	NOAA	Data acquired in 2019.
2018 FEMA Lidar: Region 9, CA	NOAA	Data acquired in 2018.
1929 – 2017 USGS CoNED Topobathy DEM (Compiled 2017): Central Coast of California	USGS	Published in 2018. Underlying topographic and bathymetric datasets from 1929-2017.

Figure 3.12: Morro Bay basemap. Numbers denote elevation in feet relative to the mean lower-low water (MLLW) tidal datum



Source: Maxar

3.1.5 Other site constraints

Potential constraints and obstructions near the project site that may interfere with the design process have been identified and summarized in Figure 3.13. The authorized depths of the Morro Bay Federal Navigation Channel (FNC) are summarized in Figure 3.13 and Table 3-4.

In addition, significant sand infilling was observed along the northeastern face of the sand spit. Water depths as shallow as 3 ft have been observed in parts of the FNC Channel and pose a vessel navigation hazard. Geotechnical, geological, and seismic constraints and hazards were also identified based on a desk study of previous studies and reports in vicinity of Morro Bay and have been summarized in the preliminary geotechnical report provided in Appendix C.

Figure 3.13 Summary of site constraints in Morro Bay, to be read in conjunction with Table 3-4.



Source: Maxar.

Table 3-4 – Morro Bay FNC authorized channel geometries

Identifier	Channel Section	Authorized Depth [ft]	Channel Width [ft]
A	Entrance Channel	30	350
B	Transition Channel	Varies from 16 – 30	350
C	Sand Trap	25	N/A
D	Main Channel	16	350
E	Navy Channel	16	350
F	Morro Channel	12	150

3.2 O&M facility infrastructure minimum functional requirements

This section provides an overview of the functional requirements used to develop O&M site plans. These requirements were developed through engineering experience from similar sites worldwide and through a series of interviews with MBWEA OSW.

3.2.1 Design vessels

Two (2) types of vessels were selected to support the O&M activities at the study site, namely:

- Service Operations Vessels (SOV)

- Crew Transfer Vessels (CTV).

SOVs typically remain offshore for extended periods of time (approximately two weeks) performing inspections and small repairs. Upon return to the O&M facility, they would typically be at berth for approximately 24 hours while being loaded with supplies before heading back to the MBWEA OSW lease areas. CTVs would shuttle personnel and minor supplies from the O&M facility to the lease area on a daily basis.

Due to this schedule, the facility would be expected to provide one dedicated SOV berth shared between developers, and a second transient mixed use SOV berth which would be used less frequently. For rare occasions where a third SOV is required at the site, this would use bow and stern mooring buoys in the channel or bay entrance.

Table 3-5 summarizes the vessel functions and dimensions to be used for design purposes, based on past project experience and developer feedback.

Table 3-5 – Design vessels

	Service Operations Vessel (SOV)	Crew Transfer Vessel (CTV)
Purpose	Supports multi-day O&M trips, provides accommodation for wind farm workers, and assists with servicing and repairing wind turbines.	Vessels used to transport and shuttle wind farm technicians and other personnel out to sites daily. No live aboard accommodation.
Length	260 – 300 feet	65 – 90 feet
Beam	65 – 75 feet	22 – 30 feet
Draft	18 – 25 feet	5 – 10 feet
Number	3 (1 per developer)	3 (1 per developer)
Speed Limit	10 knots	10 knots

Note, Service Accommodation Transfer Vessels have been listed within past studies such as REACH (Mott MacDonald, 2022). The developers interviewed for this study indicated that Service Accommodation Transfer Vessels did not form part of their planned O&M vessel mix for the Morro Bay Wind Energy Area.

3.2.2 Berthing and navigation

Table 3-6 outlines the requirements for vessel access and general berth geometry for safe mooring of vessels. These requirements are based on the anticipated vessel types and dimensions entering the waterfront as listed above and may be subject to future revisions.

Table 3-6 – Berthing and navigation requirements

Parameter	Value
Berth Length	CTV: 100ft (finger pier) or 120ft (linear berthing) SOV: 400ft (linear berthing) per SOV or 150-200ft (mooring dolphins)
Berth Pocket Width (CTV Only)	Single Slip: 35ft Double Slip: 70ft
Berth Draft	CTV: 12ft at LAT SOV: 28ft at LAT
Navigation Channel Width	300ft minimum
Navigation Channel Depth	30ft at MLLW + overdredge
Turning Basin Diameter	600ft minimum

3.2.3 Marine facility

This section addresses the marine infrastructure necessary to support O&M activities beyond vessel access, maneuvering, and berthing. It includes definitions of the various operational zones, followed by the functional requirements for both waterfront and upland facilities.

3.2.3.1 Operation area definitions

To support efficient SOV operations at the O&M site, the quayside area is organized into three spatial components, each serving a specific role in operation logistics:

- **Quayside Staging Apron:** The immediate interface between the vessel and shore, used for direct loadout activities and crew transfer.
- **Intermediate Staging Zone:** Located near but not necessarily on the quay, this area provides buffer for overflow staging and temporary container holding.
- **Upland Yard:** Positioned further inland, the upland yard supports long-term inventory storage and operational logistics beyond the immediate vessel loading operations.

Detailed descriptions for each component are shown in Table 3-7 below.

Table 3-7 – Operation zones definitions

Operation Zones	Quayside Staging Apron	Intermediate Staging Zone	Upland Yard
Description	Area for direct SOV operations and transfers (personnel and inventory/containers)	Buffer area between the quay and upland yard	Dedicated space for long-term inventory/container storage, and space for additional buildings supporting O&M operations
Location	On quay	Near quay but not required to be on the quay itself	Uplands
Features	<ul style="list-style-type: none"> ● Secure site ● Truck lane ● Forklift maneuver area ● Container handling and staging zone ● Shared between developers through scheduling. 	<ul style="list-style-type: none"> ● Secure site ● Short-term container staging ● Pre/Post vessel berthing operation zones 	<ul style="list-style-type: none"> ● Long-term container storage ● Office space ● Warehouses and workshops ● Crew parking
Minimum Size	60ft width. Min 0.5 acres	0.5 acre	3+ acres per developer

3.2.3.2 Quayside and waterfront facilities

This section defines the assumed requirements and characteristics for quayside and waterfront facilities to support O&M operations.

Table 3-8 – Moorage requirements and waterfront facilities

Parameter	Value
Wharf Width	Minimum 60 ft for dedicated quay
Over-water Construction	No multi-story buildings
Wharf Bearing Capacity	1,000 psf (2,000 psf for jib crane foundation)
Lifting Equipment	1 jib crane per SOV berth supporting quayside operations. 1 jib crane at CTV berth for vessel maintenance reaching the loading zone of vessel
Quayside Area	Quayside staging apron and intermediate staging zone shared between developers. Dedicated quay length for 1 SOV 1 transient mixed-use berth
Additional Moorage	Moorage for 1 SOV using mooring dolphins and/or mooring buoys
Fueling & Fuel Berth	Fueling not considered in this study due to uncertainties in fueling type (e.g., diesel or electrification at OSW lease site)
Helicopter Facilities / Helipads	Not required
Boat Lift	1 mixed-use boat lift capable of lifting CTVs

3.2.3.3 Upland facilities

This subsection covers the landside infrastructure beyond the immediate waterfront essential to O&M operations. Upland facilities can be located further inland, away from the bay. This section assumes the upland facilities for each OSW developer are sited together to gain potential efficiencies in planning and cost.

Table 3-9 – Upland facilities

Parameter	Value
Access Road	Shared access road between developers
Access Road Width	Minimum 30ft to accommodate 2 lanes of traffic
Total Upland Area	10 acres (3 acres per developer + access roads)
Warehouse	60,000 SF (20,000 SF per developer)
Office Facility	30,000 SF (10,000 SF per developer)

3.3 Study assumptions & exclusions

This study was based on the following assumptions:

- Marine infrastructure upgrades were developed to a conceptual, pre-feasibility assessment level of detail.
- The study was based upon prior project experience, publicly available information, engagement with offshore wind developers, information collected during the site visit on November 21, 2024, and project participants; it is not intended to be comprehensive.

- Dredging assessments were conducted at a conceptual level only; dredge volumes are estimated based on representative dredge prisms and side slopes. No detailed ground investigations were carried out to characterize soil conditions.
- Waterfront infrastructure conceptual designs were not developed with detailed engineering calculations. Conceptual layouts were developed based on review of site conditions and assumed loading criteria.
- It is assumed that upland area is available to support an upland yard for all layout options under consideration.
- Helicopter operations were assumed to be handled by neighboring airports.
- The following items were excluded from the study:
 - Wave and vessel mooring modeling
 - Detailed sedimentation and circulation modeling
 - Analysis of navigation channel sedimentation rates
 - Detailed geotechnical or structural analysis
 - Detailed construction schedules
 - Phased construction options and considerations
 - Skilled labor workforce estimates
 - Fueling studies:
 - There are currently too many uncertainties to assess requirement for fueling at Morro Bay.
 - If marine fuel is used by SOVs, the fuel type, vessel tank capacity and fueling frequency would need to be understood. Fueling methodology would also need to be understood from developers; ie, fueling barges or a shoreside fueling facility.
 - If the OSW developer decides to use a hybrid or electrified fleet, a recharge station might be provided at the offshore wind lease area. Uncertainties remain over potential battery capacity, range, and requirements to recharge in port.

3.3.1 Guidelines

The following guidelines, and standards will be referenced throughout the study:

- Planning and Design Guidelines for Small Craft Harbors (ASCE, 2020)
- Harbor Approach Channels Design Guidelines (PIANC, 2014)
- Hydraulic Design of Deep-Draft Navigation Projects (USACE, 2006)
- Port Designer's Handbook, 3rd Edition (Theoresen, 2014)

4 O&M facility infrastructure concept design

As described earlier, MBWEA is expected to host three OSW developers. The conceptual design efforts for an O&M facility at Morro Bay were initially focused on the development of a single site at Morro Bay shared by all three OSW developers. However, an additional scenario was later added, whereby the O&M facility at Morro Bay would only host one OSW developer. In this case, the second developer would be located at San Luis Obispo Bay and the third developer assumed to be located out of the County limits.

4.1 Gap assessment

This section intends to identify the infrastructure gaps that exist at the Morro Bay North and South T-Piers for the development of the Offshore Wind O&M facility. This gap assessment is primarily based on observations made during a site visit conducted in November 2024. Additional information such as aerial pictures, existing condition assessments and other available supporting documents has been used to supplement information to support the assessment.

Table 4-1 below summarizes the functional requirements for the proposed O&M facility, the existing pier characteristics, and the upgrades that would be required to meet the O&M facility infrastructure functional requirements.

Table 4-1 – Functional requirements and upgrades to support an O&M facility

Functional Requirements	Existing Pier Characteristics	Upgrades Needed	Commentary
Berth length CTV: 100ft (finger pier ¹) or 120ft (linear berthing) SOV: 400ft (linear berthing) or mooring dolphins	Existing North T-Pier Length: ~400ft	Finger pier to accommodate CTV's at a lower elevation than the pier deck	The existing pier and finger pier would need to be demolished to build a new pier along with finger piers.
Navigation Channel Channel width: 300ft minimum Channel depth: 30ft at MLLW + overdredge Turning basin dia.: 600ft minimum	Navigation channel Channel width: >300ft Channel depth: -15ft MLLW Basin dia.: <600ft	Dredging would be needed	Dredging would be needed to get the required navigation channel depth and to widen the turning basin.
Access road Road width: 30ft minimum (2 lanes traffic)	Access road width: ~26ft	Widening of access road	New pier access would need to have a minimum width of 30ft to accommodate 2 traffic lanes; therefore new pier with adequate access road width would need to be built.

¹ Pier arrangement with narrow, shorter docks extending perpendicularly from a main, larger dock to create individual boat slips.

Functional Requirements	Existing Pier Characteristics	Upgrades Needed	Commentary
Wharf geometry Width: minimum of 60ft	Existing T-Pier Quayside Width: ~23ft	T-piers ideally widened	New T-Pier should be wider than existing, however developer may accept narrower width for cost savings.
Wharf live load capacity 1000psf (2000 psf for crane)	Existing capacity: 12,000 lbs.	New pier able to resist the minimum live load capacity	Existing timber pier does not have the required capacity. New pier would need to be built with adequate capacity.
Cranes 1 jib crane ² per SOV berth 1 jib crane per CTV berth	No current crane operation	1 jib crane per SOV 1 jib crane per CTV	The new pier would need to be able to support both SOV and CTV crane operation. Jib cranes would be required to transfer equipment to/from pier to vessel.
Offices Facility: 30,000 SF (10,000 per OSW developer)	Pier head area: < 30, 000 SF	-	Office space assumed to be situated in upland yard.
Quayside Area: 0.5-1 acre Length: to accommodate 2 SOV's	Existing quayside (North Pier) Area: ~0.27 acre Length: ~440ft	-	The new pier would need to meet the minimum quayside area requirement.
Additional moorage Use of mooring dolphins ³ And/ or mooring buoys	No mooring dolphins No mooring buoys No fenders	Mooring dolphins, buoys, and fenders	Dolphins may not be required if the new pier has sufficient berth area.
Boat Lift 1 boat lift for CTV's	No current boat lift on site	New boat lift station	Boat lift capable of lifting the vessels.
Fueling	Existing nearby fueling facility unsuitable for SOVs	-	Fueling not considered at this stage of development due to uncertainties in fueling methods (Diesel vs electrification from OSW lease area).

4.2 Concept design for a facility shared by three developers

4.2.1 List of concept designs

The study focused on the North T-Pier as the primary pier for redevelopment. North T-Pier was chosen because it is positioned closer to the entrance channel, is less constrained than the South T-Pier, and presents greater potential for utilization of existing industrial land use.

A list of concept designs was then developed, considering different variables that could be considered in design; these include but are not limited to:

- Location of Harbor Department and USCG

² Freestanding/base-mounted crane with a horizontal boom (jib) supporting a movable hoist to move loads.

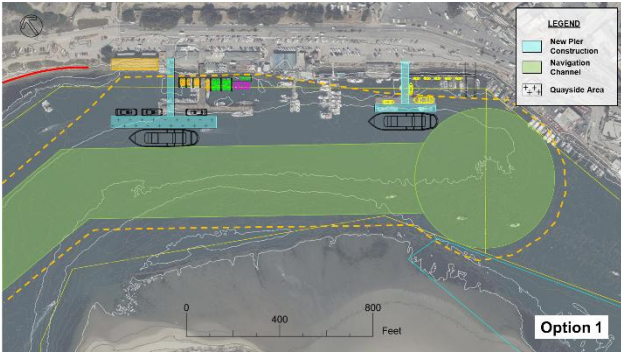
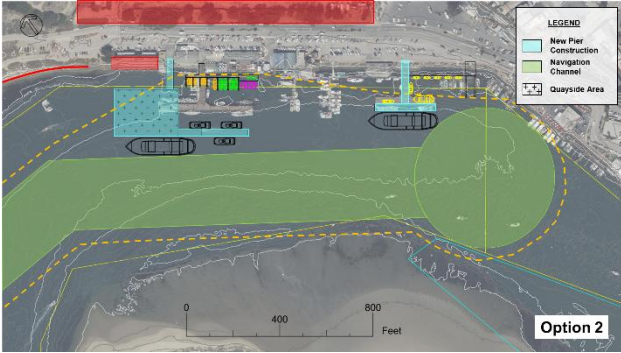
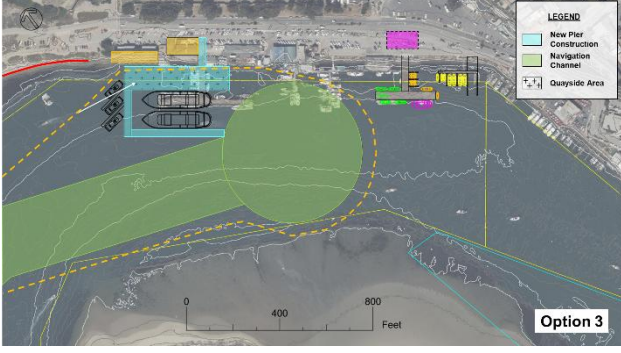
³ Standalone group of piles supporting a concrete block and bollard on top to secure mooring lines connected to a vessel.

- Leasing or purchase of Vistra waterfront property:
 - The waterfront building was once an intake pump house for the power station and is currently understood to be vacant. Successful redevelopment of this land would provide good access to waterfront facilities with minimal disruption to local businesses.
 - Note that redevelopment of this property would require liaison and agreement with the Vistra property and may be subject to permitting challenges. While Vistra have been contacted as part of this study, it is noted that formal engagement with Vistra has not been undertaken, nor have any agreements been formed.

Brief descriptions of all concept designs considered are provided in Table 4.2.

Table 4.2: List of concept designs

Concept Design	Conceptual Layout	Description
Do Nothing		<ul style="list-style-type: none"> ● Existing layout of Morro Bay without modifications. ● The do-nothing alternative is typically added for comparative purposes only. ● The T-Piers in current condition and configuration do not satisfy the minimum functional requirements for an O&M facility. ● Option unsuitable for further development.
Do Minimum		<ul style="list-style-type: none"> ● Existing layout of Morro Bay with structural modifications. ● Due to age and structural conditions, existing piers cannot be reasonably modified for O&M purposes. ● Further, existing length of South T-Pier would be too short for SOV vessels. ● Option unsuitable for further development.

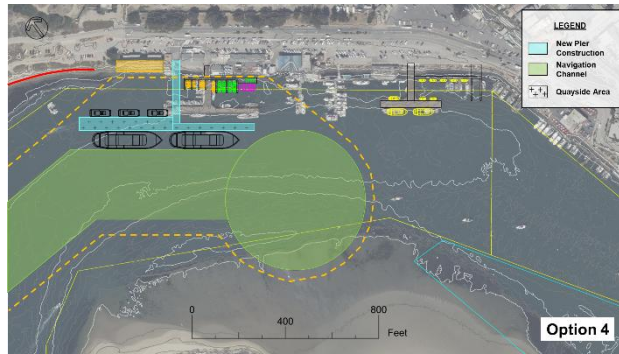
Concept Design	Conceptual Layout	Description
Option 1	 <p>The map for Option 1 shows a harbor area with two main piers. The North T-Pier is highlighted in light blue, indicating reconstruction. A green area represents the navigation channel, and a yellow area represents the quayside area. A scale bar at the bottom indicates 0, 400, and 800 feet. A legend in the top right corner identifies the symbols for New Pier Construction, Navigation Channel, and Quayside Area. The label 'Option 1' is in the bottom right corner of the map.</p>	<ul style="list-style-type: none"> ● Reconstruction of both T-Piers to satisfy O&M operations. ● North T-Pier reconstructed with longer, wider berth, suitable for SOVs and CTVs. ● Vistra property leased and converted into O&M space. ● USCG and Harbor Dept. vessels located on redeveloped finger piers. ● South T-Pier reconstructed in current form, to withstand SOV berthing loads, and used as a public mixed-use berth. It's noted that length may be less than ideal for SOVs.
Option 2	 <p>The map for Option 2 shows a harbor area with two main piers. The North Pier is highlighted in light blue, indicating extension. A green area represents the navigation channel, and a yellow area represents the quayside area. A scale bar at the bottom indicates 0, 400, and 800 feet. A legend in the top right corner identifies the symbols for New Pier Construction, Navigation Channel, and Quayside Area. The label 'Option 2' is in the bottom right corner of the map.</p>	<ul style="list-style-type: none"> ● Reconstruction of both piers to satisfy O&M operations. ● North Pier extended to include intermediate staging zone, facilities or office space, assuming Vistra property is not leased. ● USCG and Harbor Department located on redeveloped finger piers. ● South T-Pier reconstructed in current form, to withstand SOV berthing loads, and used as a public mixed-use berth. It's noted that length may be less than ideal for SOVs.
Option 3	 <p>The map for Option 3 shows a harbor area with two main piers. The North T-Pier is highlighted in light blue, indicating reconstruction in a U-shape. A green area represents the navigation channel, and a yellow area represents the quayside area. A scale bar at the bottom indicates 0, 400, and 800 feet. A legend in the top right corner identifies the symbols for New Pier Construction, Navigation Channel, and Quayside Area. The label 'Option 3' is in the bottom right corner of the map.</p>	<ul style="list-style-type: none"> ● Reconstruction of North T-Pier in U-shape to accommodate all O&M vessels. ● Office space location dependent on Vistra property lease/purchase. ● South T-Pier repaired in keeping with original. USCG and Harbor Department to be relocated to South T-Pier. ● All O&M operations on North Pier so a reduced dredge footprint possible.

Concept Design

Conceptual Layout

Description

Option 4



- Reconstruction of North T-Pier with a longer berthing face to accommodate all O&M vessels.
- Vistra property leased/purchased and converted into office space.
- USCG and Harbor Department located on new finger piers near the North T-Pier.
- South T-Pier repaired in keeping with original and open to public use.
- All O&M operations on North Pier so a reduced dredge footprint possible.

4.2.2 Least constrained concept design

From the list of concepts above, the Do Nothing and the Do Minimum did not meet the minimum functional requirements of an O&M facility and were not be considered for further development.

Between the remaining Options 1 to 4, Option 4 was selected by the Project Team for further evaluation and refinement in subsequent sections of the report; the justification for selection is detailed below:

- Option 4 featured the lowest construction and dredging footprint compared to other options that satisfied the minimum functional requirements of an O&M facility.
- With the O&M operations constrained to the North T-Pier, local impact to the town would be lessened, compared to Options 1.
- The South T-Pier would remain fully open to public and would not face disruption due to construction or operation of O&M facilities.
- The facility would resemble the existing T-Piers to help maintain local character and fabric.
- The majority of overwater construction and seabed impacts are located from the shoreline, therefore minimizing impacts to the eelgrass habitat in the shallow waters.
- Should it be required, the south side of the North T-pier could potentially open to public co-use as a mixed-use berth in normal operational conditions. It is however noted there will be times when two SOV's would be required at the facility simultaneously; during such times it is expected that public use of the T-Pier would be temporarily restricted for safety.
- It was noted that the location of finger piers to service USCG and Harbor Dept. in Option 4 would be unacceptable in its current configuration due to proximity to the fishing wharf and resultant negative impact on fishing activities; this would be later resolved in Concept Design Development (Section 4.2.4).

4.2.3 Strategic development scenarios

Two strategic development scenarios were then developed for Option 4, comprising identical marine infrastructure but covering different property acquisition and leasing outcomes. Conceptual sketches for the scenarios are provided in and respectively.

- **Option 4A** – Development of O&M facility with acquisition of the Vistra Waterfront Property and conversion to an Intermediate Staging Zone. USCG and Harbor Dept. would remain in place with access to upgraded finger piers.
- **Option 4B** – Development of O&M facility without acquisition of the Vistra Waterfront Property. An Intermediate Staging Zone would instead be constructed within the “Triangle Lot,” north of the Morro Bay Maritime Museum. USCG and Harbor Dept. would remain in place with access to upgraded finger piers.

4.2.4 Concept design development

The concept designs were then further developed and refined in line with the two strategic development scenarios previously described. Figure 4.1 and Figure 4.2 illustrate the conceptual plans for Option 4A and Option 4B, respectively.

Both options would be expected to comprise the same dredging footprint and marine infrastructure:

- The pier width was sized as 60ft to provide suitable width for a truck lane, maneuvering space for forklifts, cargo staging, with a no-vehicle zone on the berthing faces of the pier structure.

- The northern extent of the North T-Pier would be dedicated for O&M use and access would be secure with a gated entry. The primary SOV berth would be located on the outer edge, with the CTVs moored linearly on the inside edge of the T-Pier. The CTVs would be accessed via a gangway ramp and floating pontoons to suit the comparatively lower freeboard of the CTVs. It is envisioned small jib cranes could be used from the pier to lift lightweight materials and tools to the CTVs.
- The southern side of the T-Pier could potentially be open for public use, subject to agreement with O&M operators. It is however noted there will be times when two SOVs would require moorage simultaneously at the facility; during such times it is assumed that public use of the T-Pier would be temporarily prevented for public safety.
- The existing USCG shed and gated facility has been moved from the north side of the T-Pier to the South side. The spatial extents of this compound would be no less than their existing compound and would be secure from public access as per the existing arrangement. USCG would have access to their vessels via a private gangway ramp and floating pontoons accessed from within the gated compound. It is noted there may be concerns that USCG would be situated a greater distance from the entrance to the bay than the current arrangement which may slightly hinder emergency response times.
- The Harbor Dept. would have access to dedicated floating finger pontoons accessed from the shoreline in a similar arrangement to existing.
- The fishing wharf would be left open for fishing operations as per the existing arrangement.
- Morro Bay Oyster Company, Dockside, and Morro Bay Fish Company, may be impacted these concepts. Full assessment of impacts would be required at a later stage, and mitigations or relocation addressed before a development could progress.
- A boatlift could be included to the south of the waterfront. This would be sized for CTV vessels and would be open to public use. The location shown is indicative and would be subject to the wider Morro Bay Waterfront Masterplan. Any moorage slips impacted by the boatlift location would be relocated to avoid negative impacts.
- As per the minimum functional requirements, a third SOV may be required to reside in Morro Bay in abnormal scenarios. As such it is assumed that this third vessel could be located on dual mooring buoys (bow and stern) within the mouth of the bay.

Both concept design variations were assumed to include the following structural components, which were conceptually sized for the purpose of drawings and cost estimates in Section 4.4:

- Reinforced Concrete deck slab
- Reinforced concrete beams
- Reinforced concrete pile cap beams
- Concrete filled steel pipe piles
- Steel pipe piles
- Steel dolphin deck
- New floating pontoons for USCG and Harbor Dept. and gangways for access.

A navigation and dredging assessment was undertaken to support the design development; this is detailed in Section 4.3.

Both conceptual design variations feature a turning basin that extends beyond the current limits of the FNC; although it is important to note that the basin dimensions were based on conservative preliminary design guidance. This guidance specifies a diameter equal to at least twice the length of the largest vessel which may be overly conservative for a vessel as maneuverable as an SOV. As described in Section 4.3, this size could potentially be reduced to

1½ times the vessel length with validation through ship simulation modelling at later design phases.

The difference between Option 4A and Option 4B lies within the upland layout.

- Option 4A assumed that a leasing or purchase agreement could be formed with Vistra for the waterfront property. It is envisioned that this land be used for O&M operations for an Intermediate Staging Zone. This would likely be a secure area, gated from public access.
- Option 4B assumes that a leasing or land purchase agreement is not made with Vistra. Instead, the Triangle Lot would be converted to a secure compound for use as an Intermediate Staging Zone.

Figure 4.1: Morro Bay Option 4A Conceptual Plan

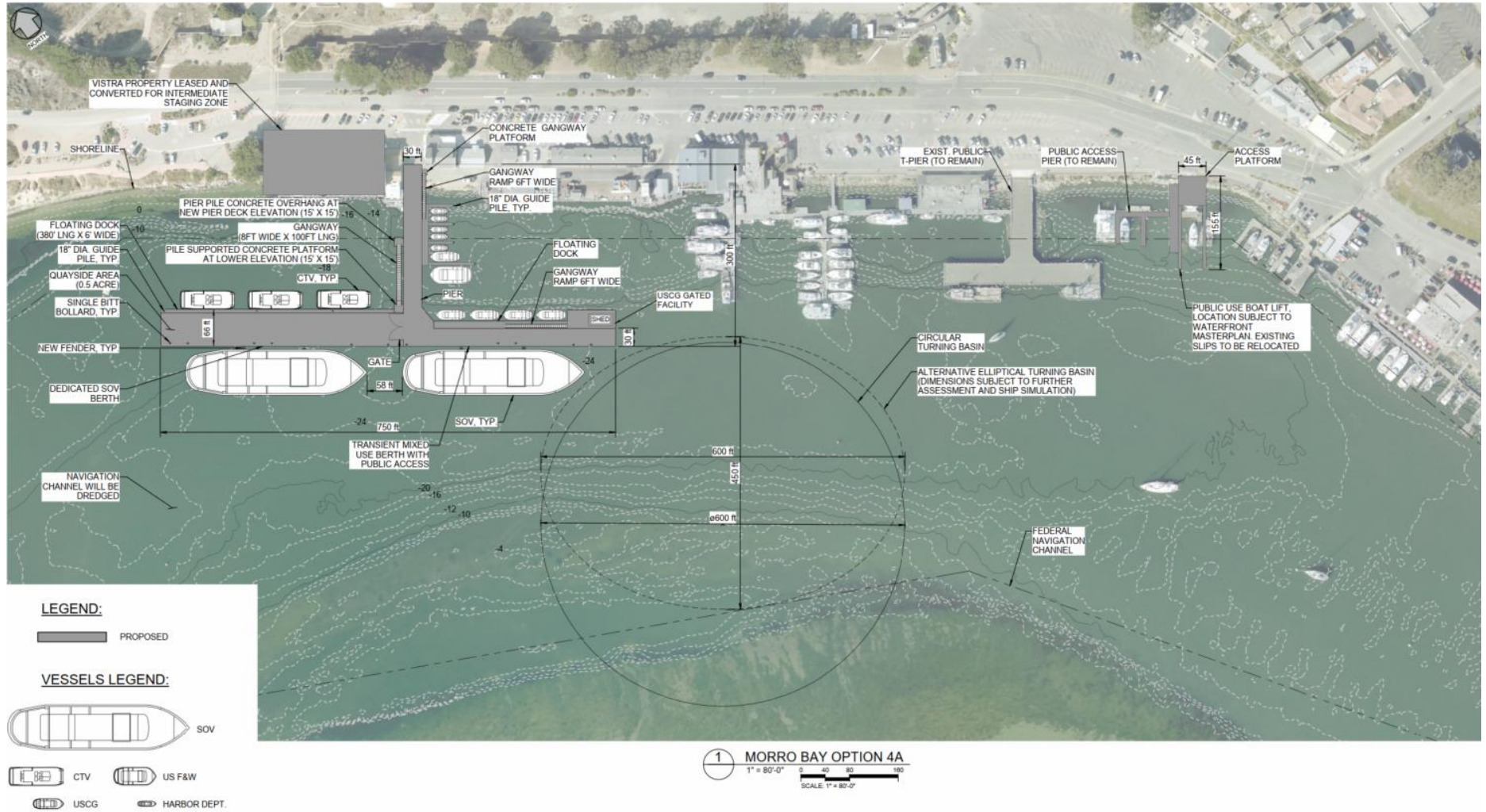
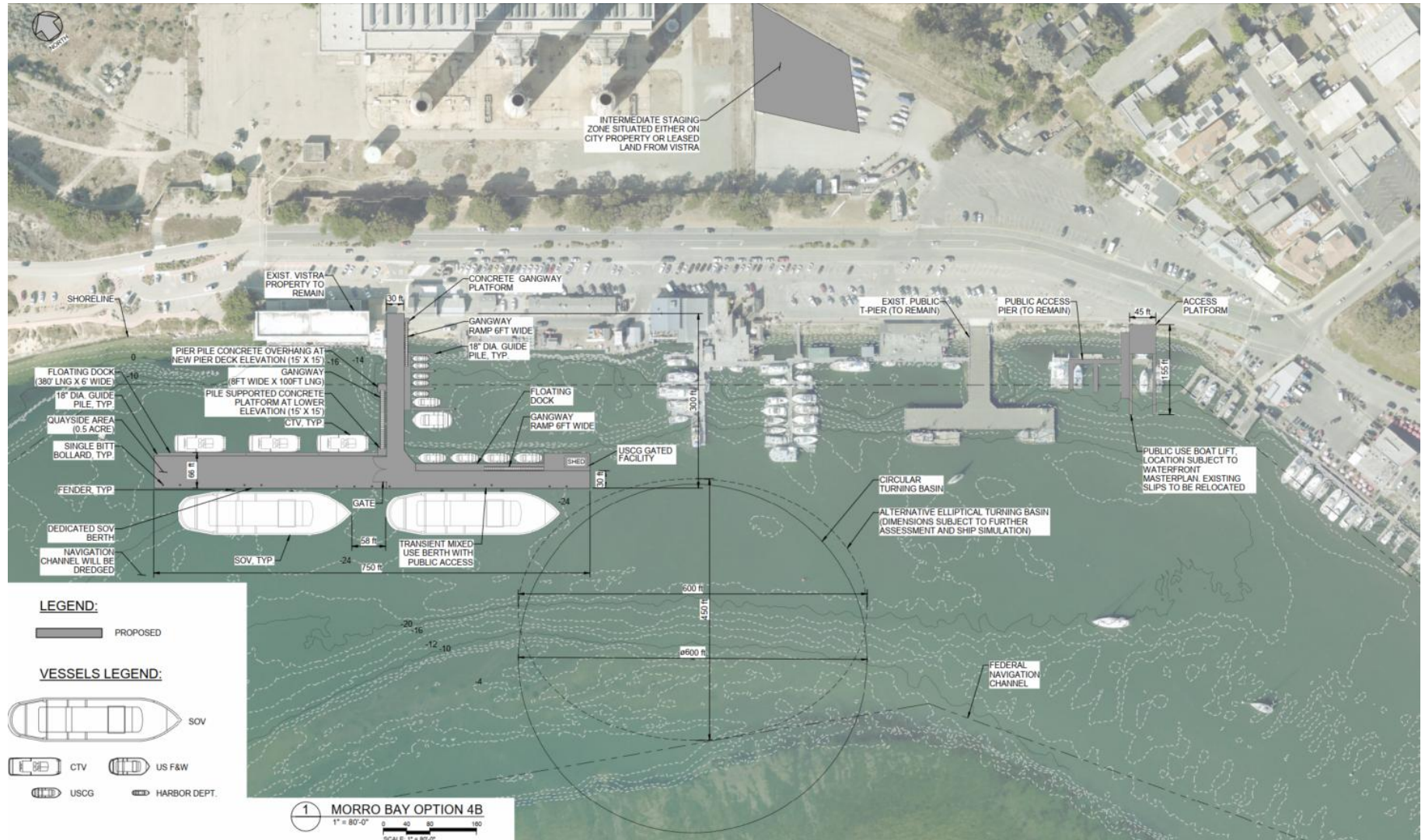


Figure 4.2: Morro Bay Option 4B Conceptual Plan



4.3 Navigation and dredging assessment

A navigation and dredging assessment was performed for Morro Bay to support the conceptual O&M Facility Infrastructure Design. The key objective of the assessment was to develop dredging alternatives incorporating the following items:

- Dredging methodology and anticipated equipment requirements
- Potential dredged material placement locations
- Dredge volumes
- Dredge cost estimates

4.3.1 Background

The navigation channel at Morro Bay once served as an important waterway for the harbor to export dairy and ranch products in the 19th century, with the original entrance of the natural channel located east of Morro Rock. Between 1933 to 1936 a causeway was built to connect Morro Rock and the mainland, and the entrance was further modified during World War II to construct two additional breakwaters to provide enhanced protection for Navy patrol boats (USACE, 2023). The navigation channel, however, has experienced significant navigation problems since then due to a combination of exposure to storm wave conditions in the Pacific and continuous sedimentation, leading to numerous deaths and injuries over several decades. The entrance channel was finally deepened and expanded in 1995-1996 to reduce wave breaking and improve safety for vessels entering and leaving the harbor, alongside the dredging of an additional sand trap within the harbor entrance (Thompson, Bottin & Shak, 2002).

As pointed out by Alfvig (2019), majority of sedimentation occurring along the shores of Morro Bay are likely attributed to nearby seasonal offshore and littoral origins due to a convergence of sedimentation flow at Morro Rock, therefore effectively making the deeper navigation channel a sediment sink.

4.3.2 Maintenance dredging history and methodology

The USACE oversees the maintenance dredging of the Morro Bay FNC. The entrance channel, transition channel, sand trap, main channel, and parts of the navy channel are regularly dredged by the USACE to maintain its authorized depth for safe passage to the back bay, and approximately 150,000 to 200,000 cubic yards (CY) of sediment are removed on an annual basis. Dredging of the inner channels (Navy Channel & Morro Channel) are often considered as a separate operation and dredged at a much lower frequency by a specialist dredge contractor, with the last dredging operation conducted in 2016-2017 to remove approximately 240,000 CY of sediment (City of Morro Bay, 2016).

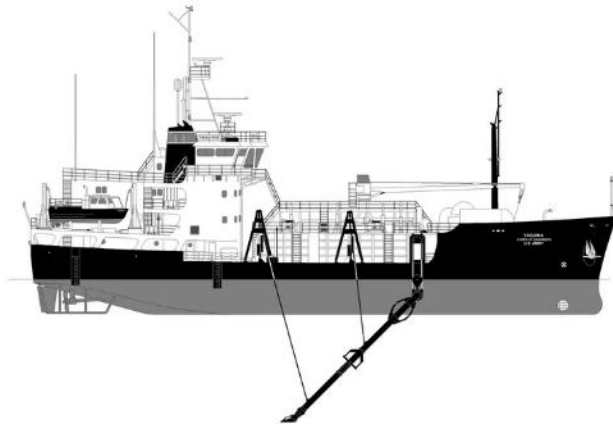
Due to the loose sandy sediment type and high volumes, hydraulic dredging is likely to be the most efficient method. The two main types of dredgers historically used in Morro Bay are:

- **Trailing Suction Hopper Dredger (TSHD):** A self-propelled vessel equipped with suction pipes on either side that descend to the seafloor and vacuum up sediment upon trailing. Sediment that has been removed from the seafloor is temporarily stored onboard and released once the vessel arrives at a designated placement site, by dumping through the split bottom of the hull, pumping, or rainbowing. Recent dredging operations have been undertaken by a 200ft TSHD vessel owned by USACE and named the U.S. Army Vessel (USAV) Yaquina (Figure 4.3).

- **Cutter Suction Dredger (CSD):** A barge equipped with a cutterhead or auger that loosens the sediment and subsequently removes it via sucking up and pumping the sediment-water slurry to the vessel. CSD's rarely have slurry storage on board but instead use powerful internal pumps to discharge the slurry along a pipeline to a nearby onshore placement site, typically on a beach. Alternatively, the dredger can pump the slurry into a hopper barge moored alongside for material placement further offshore. In comparison to a TSHD, CSDs offer greater maneuverability in confined locations and can work in shallower water and where shoaling is an issue. CSD's that have previously been used to dredge in the Morro Bay back bay include the 200ft H.R. Morris and the La Encina.

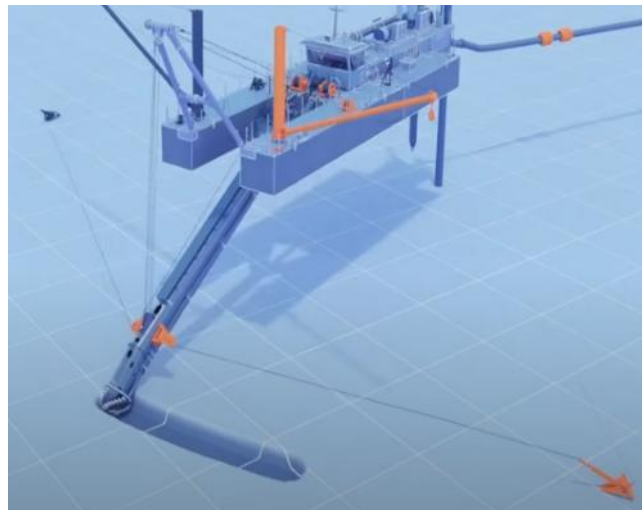
TSHD and CSD have historically handled total dredge volumes up to 580,000 CY and 660,000 CY in the 1998 and 2001-2002 maintenance dredging campaigns (USACE, 2013). The average dredge production rates for the two methods were similar (6,000 CY/day) but varied by operation, depending on the barge and crew composition and the environmental conditions where the dredging operation took place.

Figure 4.3: Schematic a Trailing Hopper Suction Dredger (USAV Yaquina)



Source: Marine Traffic

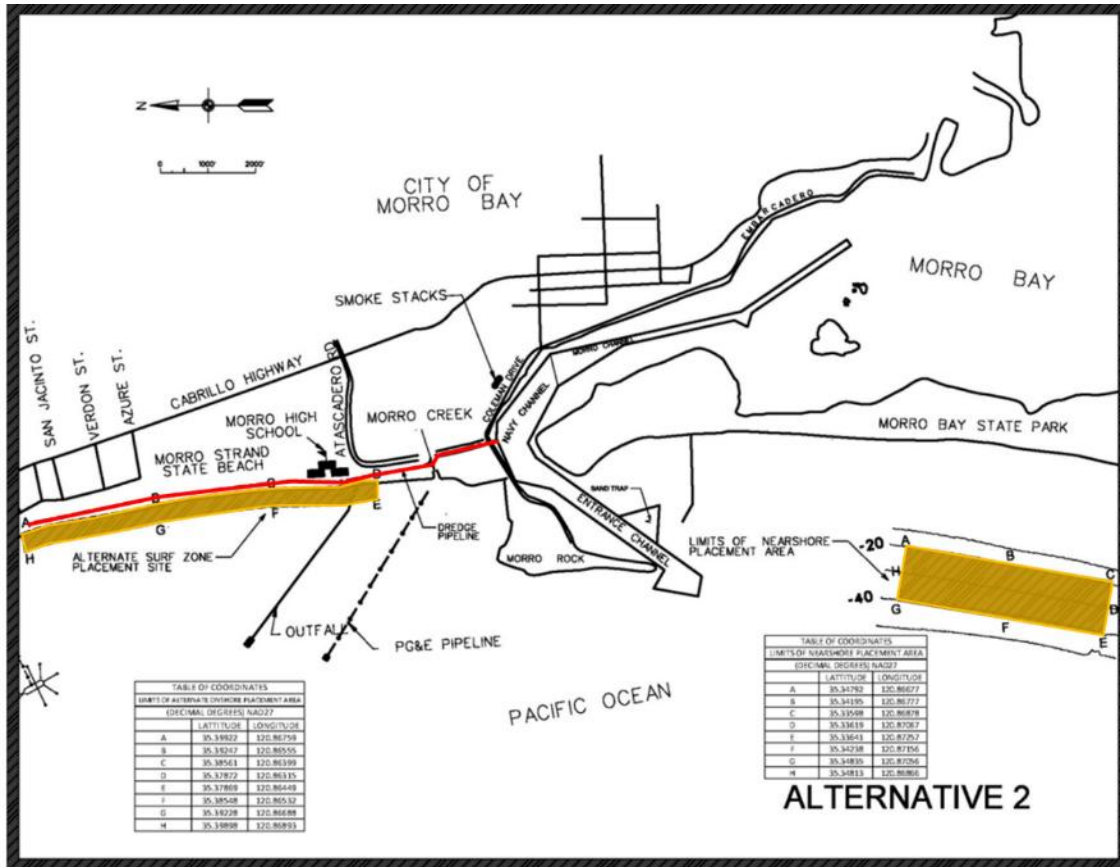
Figure 4.4: Example of a Cutter Section Dredger



Source: Damen, 2018

The selection of dredge platforms has historically been determined by the areas of the FNC being dredged. A TSHD is typically employed in the entrance channel due to its greater depth and straight alignment, which reduces the need for turning maneuvers. A CSD is commonly used in the shallower waters of the inner channels. Dredged material is usually placed in the nearshore area off the Morro Bay State Park sand spit and in the surf zone at Morro Strand State Beach for the two dredge platforms, respectively.

Figure 4.5: Dredge material placement sites (USACE, 2013). Orange boxes indicate dredge placement pipes. Red line indicates temporary dredge pipeline.



4.3.3 Preliminary dredging assessment

Given the USACE has undertaken dredging using TSHDs and CSDs in the past, they are both considered technically feasible options and are discussed in more detail in subsequent sections below. Impacts due to the capital dredging for this study are likely to be significant and therefore a full dredging assessment would be required to confirm an agreed methodology and material placement site. The assessment could evaluate beneficial reuse and would be subject to sediment transport modeling, environmental studies, and discussions with USACE, the City of Morro Bay, and key stakeholders.

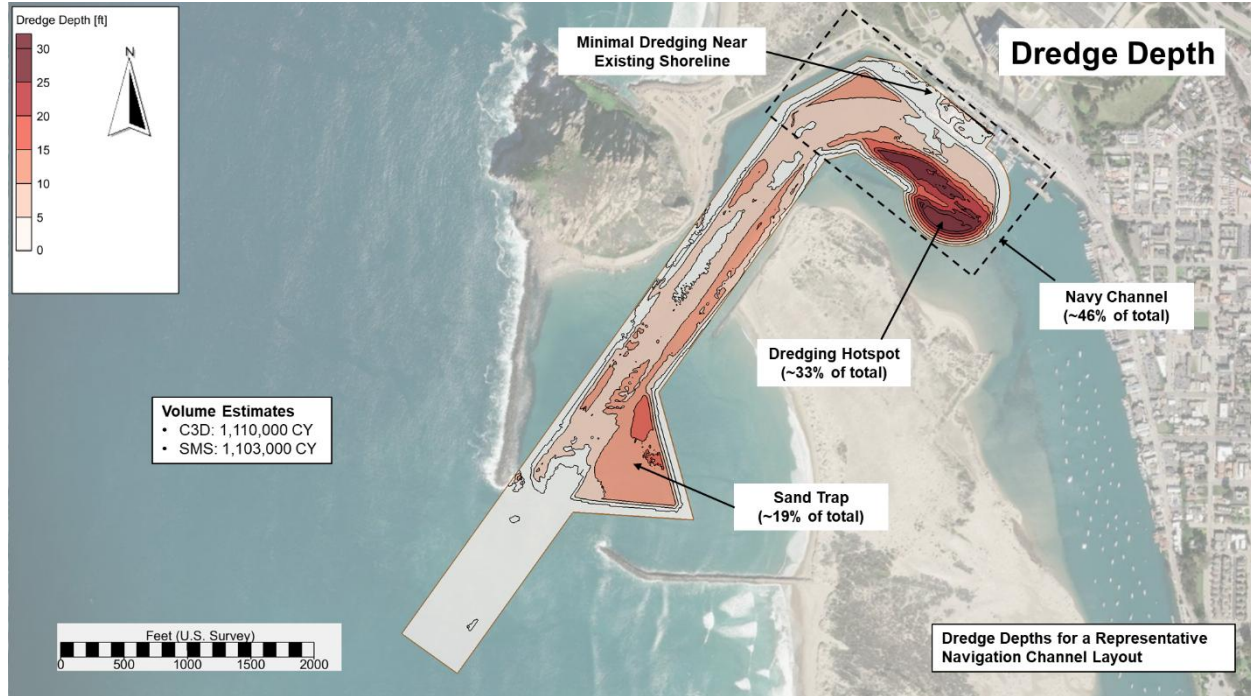
4.3.3.1 Dredge volumes

Annual dredging operations conducted by the USACE have historically maintained a navigable depth of approximately 20 to 25 ft in the channels leading up to the waterfront. Significant dredging is therefore expected to deepen the channels to 30 ft below MLLW for improved navigability and safe operation of an SOV at the newly constructed T-Pier. It is also assumed that the existing sand trap would be deepened to 30 ft below MLLW simultaneously to keep its purpose and reduce sedimentation rates in the main channels.

Based on bathymetry data, and the assumption of a 4H:1V stable sediment slope, the total dredge volume was estimated to be 1,110,000 CY for a representative navigation channel layout. Approximately half of the material would result from dredging at the entrance, transition,

main channels, and sand trap, with the remaining half coming from the Navy Channel where the turning basin is placed. Dredging near the existing shoreline is expected to be minimal.

Figure 4.6: Dredging depths in feet for a representative navigation channel layout at Morro Bay



4.3.3.2 Environmental considerations

Morro Bay is home to several threatened & endangered species, most notably the Western Snowy Plover and Southern Sea Otter, and is an active eelgrass habitat (USACE, 2013). Capital dredging works at Morro Bay may temporarily affect these habitats and present a permitting challenge. It is assumed that dredging would occur from mid-September through late February (outside the breeding seasons) to minimize impact on the species above. Due to the high volume of dredge material, it is likely that the dredging operation would either need to span multiple dredge seasons, or use additional dredgers to increase productivity.

It is also noted that dredging could result in positive environmental and safety benefits. A deeper channel would result in waves of lower height propagating through the harbor entrance improving navigability and safety for vessels. Beneficial reuse of dredged material could have significant benefits too; previous dredging campaigns that deposited sand at Morro Strand State Beach were shown to provide and protect nesting habitats for Western Snowy Plovers and improve shoreline protection through better beach response in storm events.

See Appendix B for further information.

4.3.3.3 Placement alternatives

Based on past operations in Morro Bay, two dredging placement methodologies could be used, subject to further assessment:

- Nearshore Placement
- Beach Placement

Beach placement

Significant dredging would need to be undertaken in the Navy Channel; as such the use of CSD represents a viable option capable of removing large amounts of sediment, followed by placement on the beach as a means of beach nourishment. Reusing dredged sediment on the beach replenishes the sediment lost due to tide and wave actions and may help alleviate erosion and protect nesting habitat for the federally threatened Western Snowy Plover population along the shoreline.

It should be noted that the placement of dredged material on a public beach may lead to potential public health and safety questions. Whilst no issues are expected at this stage, sediment sampling would need to be performed in the design stage to comply with regulations, confirm material suitability and to test for potential contamination. Agreement on the dredging and sediment placement plans would require engagement with the City of Morro Bay and other key stakeholders to address public safety concerns, and potential impacts of the operation to businesses and recreational use.

While the beach capacity is currently unknown, the volume of capital dredging required exceeds that previously placed at Morro Strand State Beach. As such, there may be a requirement to also place dredge material nearshore to Morro Bay State Park.

Nearshore placement

Nearshore placement of dredged sediment could be undertaken using an additional dredger such as a TSHD or CSD-barge spread, the choice of which depends on the detailed dredging assessment conducted at a later phase.

4.3.3.4 Other dredging considerations

Some other considerations regarding the dredging operation are discussed as follows:

- **Maintenance dredging:** Regular maintenance dredging in the back bay region may be required if significant sedimentation is observed in the absence of coastal protection measures. As pointed out in Section 3.1, the northeastern face of the sand spit currently experiences shoaling as sand migrates continuously into the navigation channel and poses a potential navigation hazard for deep draft vessels.
- **Geotechnical conditions:** Previous USACE dredging operations do not seem to have encountered rocky material or hard substrate. According to the Geo Hazard and Resources report by City of Morro Bay, depth to bedrock is approximately 70 ft below ground surface which was observed from multiple boreholes in the vicinity of the site. Nevertheless, a detailed geotechnical investigation is needed to characterize subsurface geological conditions and confirm feasibility of dredging operations listed above. Further Geotechnical information can be found in Appendix C.
- **Training wall:** A training wall is an underwater structure built to guide and stabilize channel flow such that the amount of sedimentation in the channel is controlled while ensuring neighboring regions do not suffer from unintentional shoreline erosion. Given the significant amount of dredging expected near the sand spit, a training wall may be required as well as other coastal measures to help direct current flow and maintain navigable depth for SOV access. This would be subject to further assessment should the project progress.
- **Impact on USCG:** By deepening the channel and reducing wave heights, the mission of the USCG could possibly change from a surf station to a security station. USCG surf station is a Coast Guard small-boat station formally designated for locations where wave (surf) conditions exceed 8 feet for at least 36 days per year, and typically feature 50-foot vessels. USCG security station is a Coast Guard unit focused on providing maritime security and may

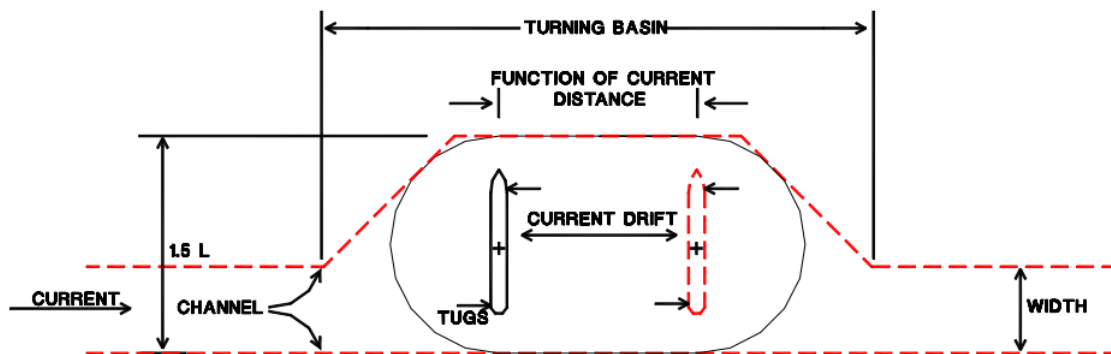
feature larger 87-foot Marine Protector Class vessels. Should this happen, there may be motivation to initiate further changes to the T-Pier to service larger USCG vessels, such as Marine Protector-Class patrol vessels (87 ft) which would be of similar size to the CTV vessels. The impact of this change on the necessary office space and upland yard is currently unknown.

4.3.3.5 Turning basin

Current dredging volumes were calculated under a conservative design assumption of a turning basin with diameter twice the length of a SOV. While suitable for predesign purposes, this configuration has the turning basin extending beyond the existing FNC and encroaches into the shoal adjacent to the sand spit, thereby increasing the dredge volume.

If design work were to be carried forward, the designer would be expected to employ ship simulation to reduce the turning basin diameter; USACE provides an alternative elliptical-shaped turning basin aligned with prevailing currents with the transverse axis being 1.5 times the SOV length, as shown in Figure 4.7. By configuring the turning basin as such, the longitudinal axis would then be able to account for current drifts during turning maneuvers, while the dimensions along the transverse axis can be minimized to reduce dredge volumes and costs, the exact dimensions of which would need to be confirmed through a ship simulator in later design stages. A turning basin that is aligned with the natural channel geometry may also see less maintenance dredging in the long term due to reduced flow disruption and sedimentation, as well as a reduced potential for a training wall for flow redirection.

Figure 4.7: Turning basin design for high current configuration (USACE, 2006)



4.3.3.6 Dredging conclusions

Overall, dredging at Morro Bay remains a challenging task due to the large dredge volume involved. Conventional hydraulic dredging methods that have been used in the past by the USACE for maintenance dredging, such as TSHD and CSD, are expected to remain utilized in future dredging campaigns. It is estimated that the entire dredging operation would take about 6 months to complete using a single dredge spread that operates continuously within this period, at a total cost estimated between \$25M to \$30M. However, due to scheduling constraints, the contractor may also utilize a second dredge spread, with open-water placement at the nearshore region off the Morro Bay State Park sand spit.

Sediment removed from the channel may potentially see beneficial reuse as beach nourishment at the neighboring Morro Strand State Beach to restore lost nesting habitat of the federally endangered Western Snowy Plover population.

Dredging a wider and deeper channel at Morro Bay would reduce the vessel navigation hazard at the harbor due to the absence of shoaling and the potentially improved wave conditions.

Should an O&M facility be proposed in the future, detailed coastal engineering analyses such as circulation modelling, wave modelling, and vessel motion analysis would be required. This is to better understand environmental loading conditions and determine the need of other coastal structures, such as training walls and expected maintenance dredging volumes.

Finally, it should be noted that dredging in a navigation channel may cause disruption to the public, and navigation of commercial vessels would need to be coordinated to minimize disruption. It is therefore recommended that a dredging plan is thoroughly explained with safety concerns addressed upon engagement with the City of Morro Bay, members of the public, and other relevant stakeholders.

4.4 Cost estimate

Construction and engineering cost estimates were developed in accordance with the Association for the Advancement of Cost Engineering (AACE) Class 5 estimate. For this estimate class, the accuracy level ranges from -20% to -50% on the low range and from +30% to +100% on the high range. The order of magnitude estimate typically ranges from -30% to +50%. Class 5 estimates, by definition, are prepared based on very limited information; thus, they have a wide range of accuracy. The purpose of a Class 5 estimate is to conduct a concept screening with the project between 0% and 2% of complete definition. The costs are determined based on past projects with similar infrastructure and prior experience on similar projects, conceptual engineering analyses, and professional judgment. The following approach was followed:

- Understand and determine the functional requirements for the selected location.
- Create different concept designs for the selected location.
- Conduct a quantity take-off for the types of improvements required such as demolition of existing infrastructure, construction of new infrastructure, upland improvements, dredging, etc.
- Once quantity take-off is complete, a unit cost was assigned to each line item based on prior studies, projects, and experience.

A contingency consideration of 50% was included to cover undefined items due to the level of engineering carried out at this stage. The contingency was added to cover items or additional undefined steps that would need to be taken that are not fully detailed during this pre-design stage.

The scope of the cost estimate covers OSW O&M waterfront infrastructure only. As such, the following items were excluded from the cost estimates:

- Potential relocation of USCG property, shed, and relocation of floating pontoons.
- Relocation of Harbor Department.
- Relocation of impacted restaurants and other businesses.
- Relocation of commercial fishing docks/facilities.
- OSW O&M Upland yard, utilities, office construction and interior fit-out.
- Environmental mitigation for development.

The costs are summarized in Table 4.3 and detailed in Table 4.4 and Table 4.5.

Table 4.3: Morro Bay site alternative options cost estimate

Site Alternatives Option	Cost Estimate	Cost Accuracy Range (-30% / +50%)
Morro Bay Option 4A	\$128.8M	\$90.15M to \$193.2M
Morro Bay Option 4B	\$140.8M	\$98.55M to \$211.2M

Table 4.4: Morro Bay Option 4A cost estimate

OSW - Central California Offshore Wind Ports Assessment						
OPINION OF PROBABLE COST - MORRO BAY O & M Facility - OPTION 4A						
ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST (\$/UNIT)	COST (\$)	ROUNDED COST (\$)
1	Mobilization and Demobilization					
1.1	Mobilization and Demobilization	LS	1	\$1,500,000.00	\$1,500,000.00	\$1,500,000
NORTH T-PIER						
2	Demolition					
2.1	Existing T-pier demolition	SF	16000	\$100.00	\$1,600,000.00	
	<i>Additional Yard Improvements for Laydown Area</i>					
2.2	Site Rough Grading (for 0.5 acre)	SY	2420	\$5.00	\$12,100.00	
2.3	Crushed Rock Surfacing (6" gravel bedding)	CY	403	\$70.00	\$28,210.00	
2.4	Lighting	SF	21780	\$10.00	\$217,800.00	
				Sub-total	\$1,858,110.00	\$1,900,000
3	New T-Pier (Pile supported)					
3.1	New T-Pier (Pile supported)	SF	42365	\$1,000.00	\$42,365,000.00	
3.2	Lighting	SF	42365	\$10.00	\$423,650.00	
3.3	Power	SF	42365	\$10.00	\$423,650.00	
3.4	Double Drive Swing Gate	EA	1	\$2,000.00	\$2,000.00	
				Sub-total	\$43,214,300.00	\$43,300,000
4	Finger Pier (Harbormaster & USCG)					
4.1	Finger Pier (aluminum framing)	SF	8032	\$500.00	\$4,016,000.00	
4.2	Finger Pier Piles (18" dia x 5/8" thk)	TN	50	\$5,300.00	\$265,000.00	
4.3	Vertical ladder	EA	0	\$10,000.00	\$0.00	
4.4	Lighting	SF	8032	\$10.00	\$80,320.00	
4.5	Power	SF	8032	\$10.00	\$80,320.00	
				Sub-total	\$4,441,640.00	\$4,500,000
5	Finger Pier (CTV's)					
5.1	Finger Pier (aluminum framing)	SF	2280	\$500.00	\$1,140,000.00	
5.2	Finger Pier Piles (18" dia x 5/8" thk)	TN	20	\$5,300.00	\$106,000.00	
5.3	Vertical ladder	EA	0	\$10,000.00	\$0.00	
5.4	Gangway	LF	100	\$1,500.00	\$150,000.00	
5.5	Pile Supported Concrete Platform	SF	450	\$1,000.00	\$450,000.00	
5.6	Lighting	SF	2280	\$10.00	\$22,800.00	
5.7	Power	SF	2280	\$10.00	\$22,800.00	
				Sub-total	\$1,891,600.00	\$1,900,000
6	SOV Mooring/ Berthing Equipment					
6.1	Fenders	EA	4	\$75,000.00	\$300,000.00	
6.2	Bollards	EA	12	\$4,100.00	\$49,200.00	
6.3	Dolphins (mooring)	EA	0	\$665,000.00	\$0.00	
6.4	Aluminum Bridge (from pier to dolphins)	LF	0	\$1,500.00	\$0.00	
6.5	Bridge support (piles + pile cap)	LS	0	\$30,000.00	\$0.00	
				Sub-total	\$349,200.00	\$400,000
7	New Onshore Office Space (building) (N/A)					
7.1	Office Space Building Construction_ Commercial	SF	0	\$800.00	\$0.00	
				Sub-total	\$0.00	\$0
SOUTH T-PIER						
8	Demolition					
8.1	Existing finger pier demolition	SF	1720	\$100.00	\$172,000.00	
				Sub-total	\$172,000.00	\$180,000
9	New Public Access Pier (Pile supported)					
9.1	New Public Access Pier (Pile supported)	SF	3150	\$1,000.00	\$3,150,000.00	
9.2	Lighting	SF	3150	\$10.00	\$31,500.00	
9.3	Power	SF	3150	\$10.00	\$31,500.00	
				Sub-total	\$3,213,000.00	\$3,300,000
10	New Boat Lift					
10.1	New Boat Lift	LS	1	\$1,000,000.00	\$1,000,000.00	
				Sub-total	\$1,000,000.00	\$1,000,000
11	Dredging					
11.1	Sand Dredging	CY	1110000	\$25.00	\$27,750,000.00	
11.2	Rock Dredging	CY	0	\$150.00	\$0.00	
				Sub-total	\$27,750,000.00	\$27,800,000
				Total	\$85,389,850.00	\$85,780,000
				Contingency (%)	50	\$43,000,000
				GRAND TOTAL		\$128,780,000

Table 4.5: Morro Bay Option 4B cost estimate

OSW - Central California Offshore Wind Ports Assessment						
OPINION OF PROBABLE COST - MORRO BAY O & M Facility - OPTION 4B						
ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST (\$/UNIT)	COST (\$)	ROUNDED COST (\$)
1	Mobilization and Demobilization					
1.1	Mobilization and Demobilization	LS	1	\$1,500,000.00	\$1,500,000.00	\$1,500,000
NORTH T-PIER						
2	Demolition					
2.1	Existing T-pier demolition	SF	16000	\$100.00	\$1,600,000.00	
	<i>Additional Yard Improvements for Laydown Area</i>					
2.2	Site Rough Grading (for 0.5 acre)	SY	2420	\$5.00	\$12,100.00	
2.3	Crushed Rock Surfacing (6" gravel bedding)	CY	403	\$70.00	\$28,210.00	
2.4	Lighting	SF	21780	\$10.00	\$217,800.00	
				Sub-total	\$1,858,110.00	\$1,900,000
3	New T-Pier (Pile supported)					
3.1	New T-Pier (Pile supported)	SF	42365	\$1,000.00	\$42,365,000.00	
3.2	Lighting	SF	42365	\$10.00	\$423,650.00	
3.3	Power	SF	42365	\$10.00	\$423,650.00	
3.4	Double Drive Swing Gate	EA	1	\$2,000.00	\$2,000.00	
				Sub-total	\$43,214,300.00	\$43,300,000
4	Finger Pier (Harbormaster & USCG)					
4.1	Finger Pier (aluminum framing)	SF	8032	\$500.00	\$4,016,000.00	
4.2	Finger Pier Piles (18" dia x 5/8" thk)	TN	50	\$5,300.00	\$265,000.00	
4.3	Vertical ladder	EA	0	\$10,000.00	\$0.00	
4.4	Lighting	SF	8032	\$10.00	\$80,320.00	
4.5	Power	SF	8032	\$10.00	\$80,320.00	
				Sub-total	\$4,441,640.00	\$4,500,000
5	Finger Pier (CTV's)					
5.1	Finger Pier (aluminum framing)	SF	2280	\$500.00	\$1,140,000.00	
5.2	Finger Pier Piles (18" dia x 5/8" thk)	TN	20	\$5,300.00	\$106,000.00	
5.3	Vertical ladder	EA	0	\$10,000.00	\$0.00	
5.4	Gangway	LF	100	\$1,500.00	\$150,000.00	
5.5	Pile Supported Concrete Platform	SF	450	\$1,000.00	\$450,000.00	
5.6	Lighting	SF	2280	\$10.00	\$22,800.00	
5.7	Power	SF	2280	\$10.00	\$22,800.00	
				Sub-total	\$1,891,600.00	\$1,900,000
6	SOV Mooring/ Berthing Equipment					
6.1	Fenders	EA	4	\$75,000.00	\$300,000.00	
6.2	Bollards	EA	12	\$4,100.00	\$49,200.00	
6.3	Dolphins (mooring)	EA	0	\$665,000.00	\$0.00	
6.4	Aluminum Bridge (from pier to dolphins)	LF	0	\$1,500.00	\$0.00	
6.5	Bridge support (piles + pile cap)	LS	0	\$30,000.00	\$0.00	
				Sub-total	\$349,200.00	\$400,000
7	New Onshore Office Space (building)					
7.1	Office Space Building Construction_ Commercial	SF	10000	\$800.00	\$8,000,000.00	
				Sub-total	\$8,000,000.00	\$8,000,000
SOUTH T-PIER						
8	Demolition					
8.1	Existing finger pier demolition	SF	1720	\$100.00	\$172,000.00	
				Sub-total	\$172,000.00	\$180,000
9	New Public Access Pier (Pile supported)					
9.1	New Public Access Pier (Pile supported)	SF	3150	\$1,000.00	\$3,150,000.00	
9.2	Lighting	SF	3150	\$10.00	\$31,500.00	
9.3	Power	SF	3150	\$10.00	\$31,500.00	
				Sub-total	\$3,213,000.00	\$3,300,000
10	New Boat Lift					
10.1	New Boat Lift	LS	1	\$1,000,000.00	\$1,000,000.00	
				Sub-total	\$1,000,000.00	\$1,000,000
11	Dredging					
11.1	Sand Dredging	CY	1110000	\$25.00	\$27,750,000.00	
11.2	Rock Dredging	CY	0	\$150.00	\$0.00	
				Sub-total	\$27,750,000.00	\$27,800,000
				Total	\$93,389,850.00	\$93,780,000
				Contingency (%)	50	\$47,000,000
				GRAND TOTAL		\$140,780,000

4.5 Concept design for a facility operated by one developer (Split-Location)

4.5.1 Split-location introduction

Initial conceptual design efforts were focused on the development of a single site at Morro Bay shared by three OSW developers for O&M activities. However, an additional scenario was added whereby the O&M facility would only host one OSW developer. A second developer would be located at San Luis Obispo Bay, and it is assumed the third developer would be located out of the region.

This section provides a summary of the additional split-location conceptual design. The existing functional requirements were reviewed and subsequently updated with modifications tailored to a single OSW developer in Morro Bay, followed by several conceptual layouts that satisfy the adjusted requirements.

4.5.2 Modified basis of assessment for a single OSW developer

This section presents the modified minimum functional requirements for the O&M facilities, adjusted in alignment with the reduced demands and needs for a single OSW developer. The proposed modifications are summarized in Table 4-6 below, along with a brief justification of changes made.

Table 4-6: Updated functional requirements for a single developer at Morro Bay

Functional Requirements	Adjusted Requirements	Justification
Quay length for 1 dedicated SOV berth and 1 transient mixed-use berth	Quay length for 1 SOV	1 OSW developer only. Offsite moorage for 2 nd SOV available through mooring dolphins and/or mooring buoys.
0.5 acre, 60ft wide quayside staging apron + 0.5 acre intermediate staging zone	Unchanged	Same laydown space requirements needed.

The following key assumptions were used in the split-location design concept conditions:

- Development to be focused on the North T-Pier.
- Development to take the form of a T-Pier to respect the local fabric of the waterfront.
- The T-Pier should be partially publicly accessible.
- T-Pier development should be respectful to neighboring local businesses and restaurants by keeping O&M activities to the north side of the North T-Pier.
- Layouts to avoid partitioning up sections of the promenade for secured access.
- USCG and Morro Bay Harbor Department to be kept at or near the North T-Pier. Secured access would be preferred.

4.5.3 Least constrained site layout

A short-list of site layouts satisfying the updated functional requirements were developed with the following design considerations:

- Location of Morro Bay Harbor Department and USCG:

- Direct access and views to the Morro Bay Entrance Channel are assumed to be preferred by the USCG and Harbor Department to safeguard and monitor vessel traffic in the FNC; however video cameras could also be used.
- Secure access required to USCG floats and property.
- Lease or purchase arrangements for the Vistra waterfront property and upland property:
 - The Vistra property represents a suitable industrial property near the waterfront, subject to land-use and zoning designation change.
 - If successfully leased or purchased, the Vistra waterfront property that was historically used as an intake pump house could potentially be converted for use as an OSW intermediate staging zone or USCG/Harbor Department office space with minimal disruption to the local community. It is noted that there have been no agreements made with Vistra at this time.
- Degree of disturbance to neighboring businesses:
 - The waterfront to the south of the North T-Pier is primarily used by fishing vessels, restaurants, and tour operators. Development of the new pier should aim to minimize impact on existing users by keeping O&M activities to the north.

Three variants of the same base design were developed from the list of design concepts to cover potential property acquisition outcomes. Conceptual sketches for each variant are provided in Figure 4.8 through Figure 4.10 respectively, with brief descriptions of each variant provided below:

- **Variant A – Development of the O&M facility without acquisition or leasing of any Vistra property:** New T-Pier constructed. Harbor Department office to be demolished. A USCG facility could be constructed on the north tip of the pier head, and the Harbor Department could either have access to the existing USCG building or an adjacent plot such as a conversion of the public restrooms. The public restroom structure would likely be expanded into a two-story building with the second floor used exclusively by the Harbor Department for their operations. The intermediate staging zone could be located within the “triangle lot,” north of Morro Bay Maritime Museum.
- **Variant B – Development of the O&M facility with a lease or purchase arrangement for the Vistra waterfront property and conversion into an intermediate staging zone:** Similar to Variant A, a USCG facility could be constructed on the pier head, while the Harbor Department gains access to the existing USCG building or site of the public restrooms. The triangle lot would not be required.
- **Variant C – Development of the O&M facility with a lease or purchase arrangement for the Vistra waterfront property and powerplant property:** The Harbor Department would need to be relocated; a new Harbor Department office could either be constructed above the public restrooms, or a redevelopment of the Vistra waterfront property could host both USCG and Harbor Department, with secure berths. The intermediate staging zone could then be located on the opposite side of Embarcadero on the Vistra powerplant property.

Figure 4.8: Split-Location Conceptual Design, Variant A – Vistra property not acquired

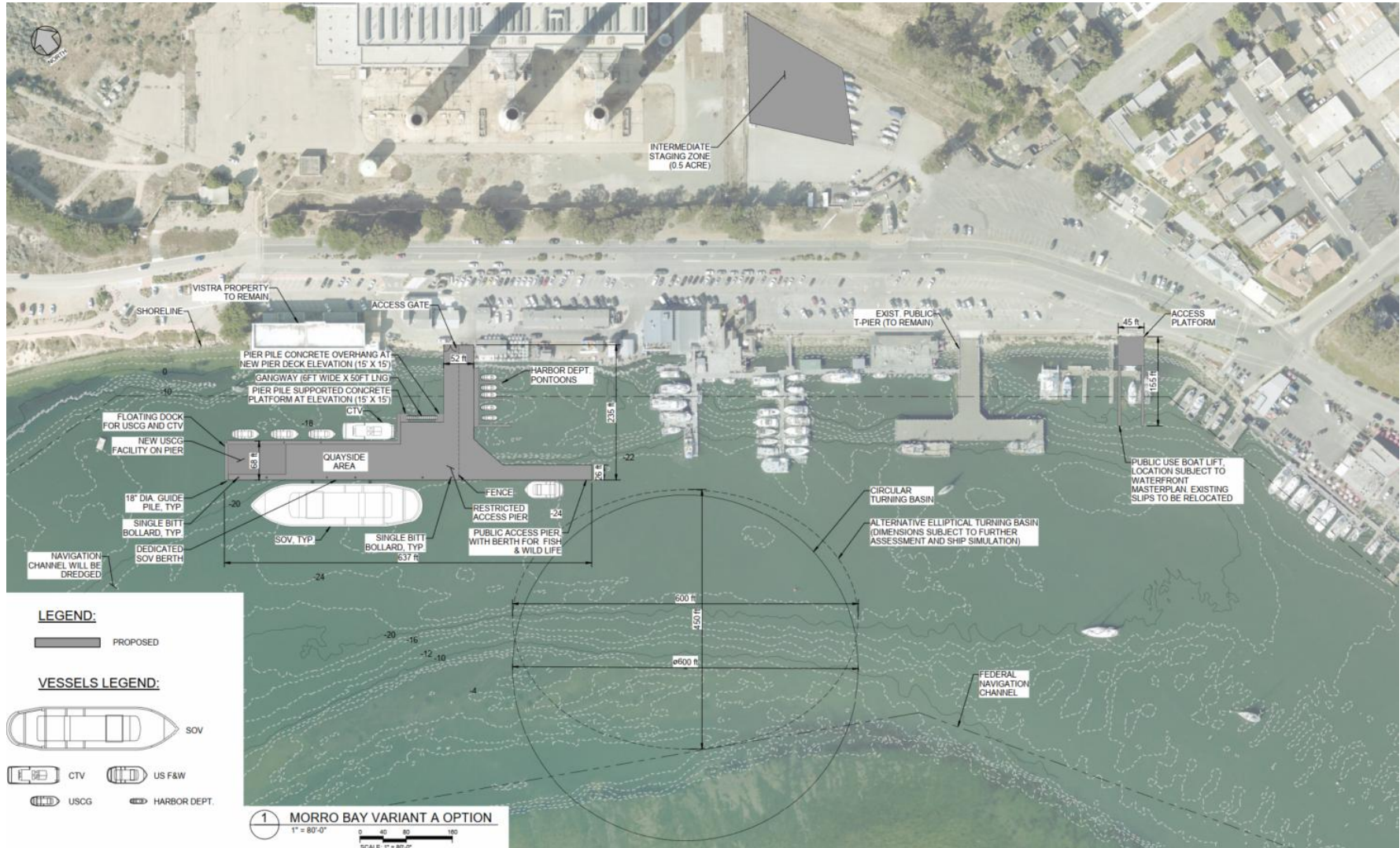


Figure 4.9: Split-Location Conceptual Design, Variant B – Vistra waterfront property leased or acquired

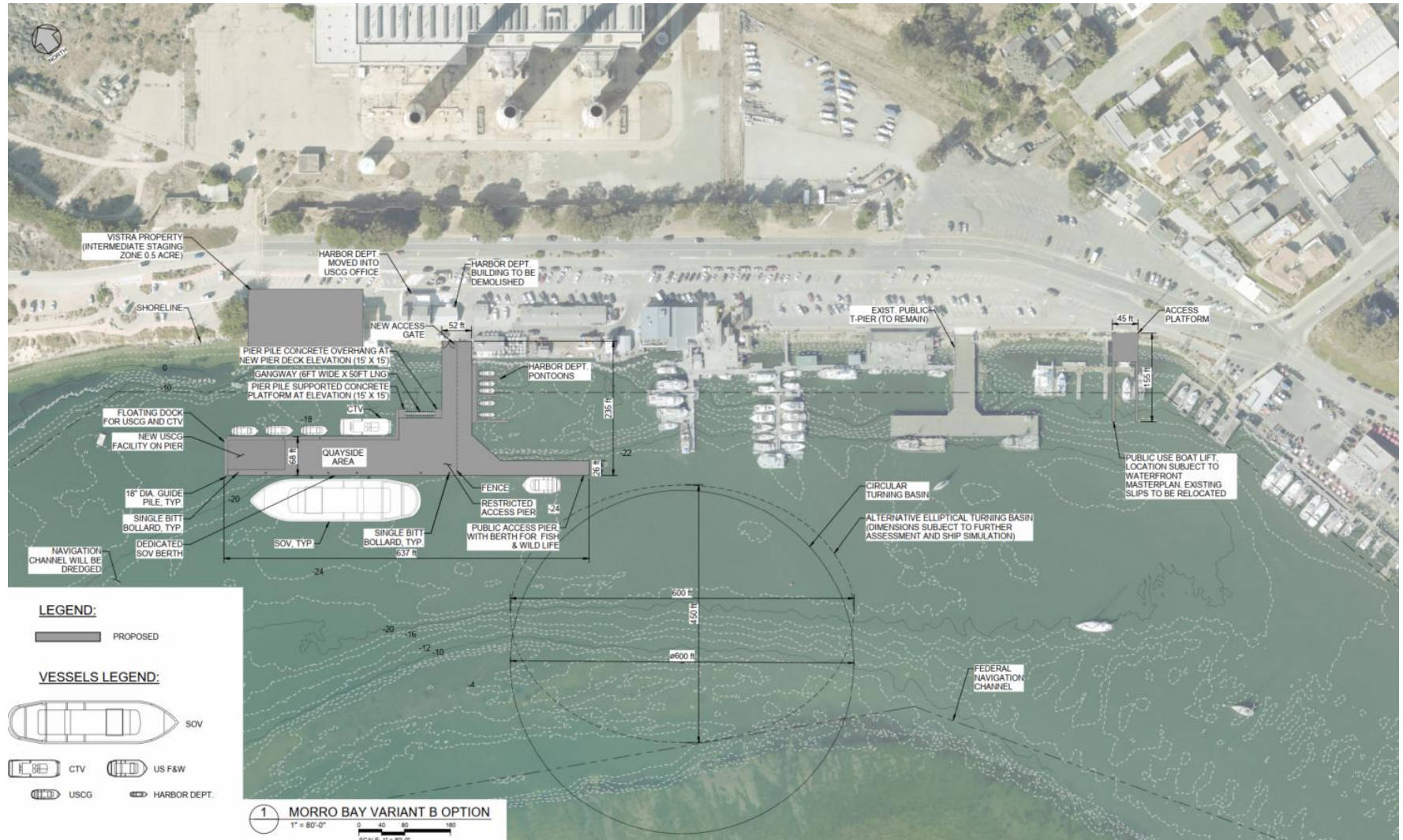
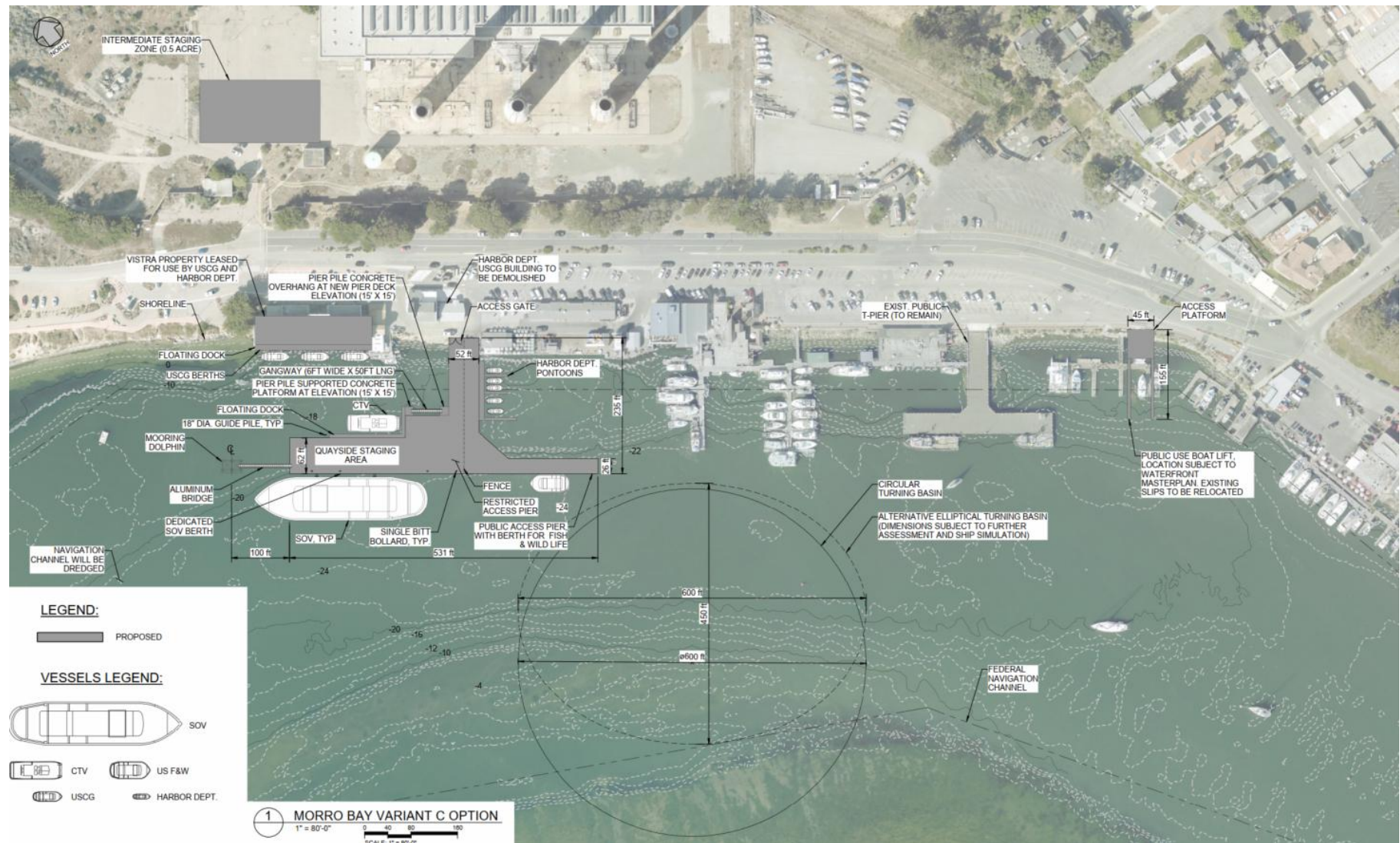


Figure 4.10: Split-Location Conceptual Design, Variant C – Vistra waterfront and powerplant property leased or acquired



4.5.4 Split-location cost

Construction and engineering cost estimates for the Split-Location Options were developed to AACE Class 5 accuracy, in accordance with the methodology presented Section 4.4.

The scope of the cost estimate covers OSW O&M waterfront infrastructure only. As such, the following items were excluded from the cost estimates:

- Potential relocation of USCG property, shed, and relocation of floating pontoons.
- Relocation of Harbor Department.
- Relocation of impacted oyster farming business.
- OSW O&M Upland yard, utilities, office construction and fit out.
- Environmental mitigation for development.
- Other waterfront infrastructure upgrades that may be negotiated in planning stages such as coastal protection upgrades.

Table 4-7 shows a summary of the total cost estimates with the Class 5 cost accuracy range. Table 4-8 to Table 4-10 show the detailed itemized cost estimates for the additional options.

Table 4-7 Morro Bay site alternative variant options cost estimate

Site Alternatives Option	Cost Estimate	Cost Accuracy Range (-30% / +50%)
Split-location Variant A	\$122.1M	\$85.5M to \$183M
Split-location Variant B	\$122.1M	\$85.5M to \$183.1M
Split-location Variant C	\$114.0M	\$79.8M to \$171.0M

Table 4-8 Split-Location Option Variant A detailed cost estimate

OSW - Central California Offshore Wind Ports Assessment						
OPINION OF PROBABLE COST - MORRO BAY O & M Facility - OPTION VARIANT A						
ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST (\$/UNIT)	COST (\$)	ROUNDED COST (\$)
1	Mobilization and Demobilization					
1.1	Mobilization and Demobilization	LS	1	\$1,500,000.00	\$1,500,000.00	\$1,500,000
NORTH T-PIER						
2	Demolition					
2.1	Existing T-pier demolition <i>Additional Yard Improvements for Laydown Area</i>	SF	16000	\$100.00	\$1,600,000.00	
2.2	Site Rough Grading (for 0.5 acre)	SY	2420	\$5.00	\$12,100.00	
2.3	Crushed Rock Surfacing (6" gravel bedding)	CY	403	\$70.00	\$28,210.00	
2.4	Lighting	SF	21780	\$10.00	\$217,800.00	
				Sub-total	\$1,858,110.00	\$1,900,000
3	New T-Pier (Pile supported)					
3.1	New T-Pier (Pile supported)	SF	44520	\$1,000.00	\$44,520,000.00	
3.2	Lighting	SF	44520	\$10.00	\$445,200.00	
3.3	Power	SF	44520	\$10.00	\$445,200.00	
3.4	Double Drive Swing Gate	EA	1	\$2,000.00	\$2,000.00	
				Sub-total	\$45,412,400.00	\$45,500,000
4	Finger Pier/ Floating Dock (Harbormaster & USCG)					
4.1	Finger Pier (aluminum framing)	SF	1600	\$500.00	\$800,000.00	
4.2	Finger Pier Piles (18" dia x 5/8" thk)	TN	50	\$5,300.00	\$265,000.00	
4.3	Vertical ladder	EA	0	\$10,000.00	\$0.00	
4.4	Lighting	SF	1600	\$10.00	\$16,000.00	
4.5	Power	SF	1600	\$10.00	\$16,000.00	
				Sub-total	\$1,097,000.00	\$1,100,000
5	Finger Pier (CTV's Floating Dock)					
5.1	Finger Pier (aluminum framing)	SF	2400	\$500.00	\$1,200,000.00	
5.2	Finger Pier Piles (18" dia x 5/8" thk)	TN	20	\$5,300.00	\$106,000.00	
5.3	Vertical ladder	EA	0	\$10,000.00	\$0.00	
5.4	Gangway	LF	60	\$1,500.00	\$90,000.00	
5.5	Pile Supported Concrete Platform	SF	450	\$1,000.00	\$450,000.00	
5.6	Lighting	SF	2400	\$10.00	\$24,000.00	
5.7	Power	SF	2400	\$10.00	\$24,000.00	
				Sub-total	\$1,894,000.00	\$1,900,000
6	SOV Mooring/ Berthing Equipment					
6.1	Fenders	EA	2	\$75,000.00	\$150,000.00	
6.2	Bollards	EA	6	\$4,100.00	\$24,600.00	
6.3	Dolphins (mooring)	EA	0	\$665,000.00	\$0.00	
6.4	Aluminum Bridge (from pier to dolphins)	LF	0	\$1,500.00	\$0.00	
6.5	Bridge support (piles + pile cap)	LS	0	\$30,000.00	\$0.00	
				Sub-total	\$174,600.00	\$200,000
SOUTH T-PIER						
7	Demolition					
7.1	Existing finger pier demolition	SF	1720	\$100.00	\$172,000.00	
				Sub-total	\$172,000.00	\$180,000
8	New Boat Lift					
8.1	New Boat Lift	LS	1	\$1,000,000.00	\$1,000,000.00	
				Sub-total	\$1,000,000.00	\$1,000,000
9	Dredging					
9.1	Sand Dredging	CY	1110000	\$25.00	\$27,750,000.00	
9.2	Rock Dredging	CY	0	\$150.00	\$0.00	
				Sub-total	\$27,750,000.00	\$27,800,000
				Total	\$80,858,110.00	\$81,080,000
				Contingency (%)	50	\$41,000,000
				GRAND TOTAL		\$122,080,000

Table 4-9 Split-Location Option Variant B detailed cost estimate

OSW - Central California Offshore Wind Ports Assessment						
OPINION OF PROBABLE COST - MORRO BAY O & M Facility - OPTION VARIANT B						
ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST (\$/UNIT)	COST (\$)	ROUNDED COST (\$)
1	Mobilization and Demobilization					
1.1	Mobilization and Demobilization	LS	1	\$1,500,000.00	\$1,500,000.00	\$1,500,000
NORTH T-PIER						
2	Demolition					
2.1	Existing T-pier demolition	SF	16000	\$100.00	\$1,600,000.00	
	<i>Additional Yard Improvements for Laydown Area</i>					
2.2	Site Rough Grading (for 0.5 acre)	SY	2420	\$5.00	\$12,100.00	
2.3	Crushed Rock Surfacing (6" gravel bedding)	CY	403	\$70.00	\$28,210.00	
2.4	Lighting	SF	21780	\$10.00	\$217,800.00	
				Sub-total	\$1,858,110.00	\$1,900,000
3	New T-Pier (Pile supported)					
3.1	New T-Pier (Pile supported)	SF	44520	\$1,000.00	\$44,520,000.00	
3.2	Lighting	SF	44520	\$10.00	\$445,200.00	
3.3	Power	SF	44520	\$10.00	\$445,200.00	
3.4	Double Drive Swing Gate	EA	1	\$2,000.00	\$2,000.00	
				Sub-total	\$45,412,400.00	\$45,500,000
4	Finger Pier/ Floating Dock (Harbormaster & USCG)					
4.1	Finger Pier (aluminum framing)	SF	1600	\$500.00	\$800,000.00	
4.2	Finger Pier Piles (18" dia x 5/8" thk)	TN	50	\$5,300.00	\$265,000.00	
4.3	Vertical ladder	EA	0	\$10,000.00	\$0.00	
4.4	Lighting	SF	1600	\$10.00	\$16,000.00	
4.5	Power	SF	1600	\$10.00	\$16,000.00	
				Sub-total	\$1,097,000.00	\$1,100,000
5	Finger Pier (CTV's Floating Dock)					
5.1	Finger Pier (aluminum framing)	SF	2400	\$500.00	\$1,200,000.00	
5.2	Finger Pier Piles (18" dia x 5/8" thk)	TN	20	\$5,300.00	\$106,000.00	
5.3	Vertical ladder	EA	0	\$10,000.00	\$0.00	
5.4	Gangway	LF	60	\$1,500.00	\$90,000.00	
5.5	Pile Supported Concrete Platform	SF	450	\$1,000.00	\$450,000.00	
5.6	Lighting	SF	2400	\$10.00	\$24,000.00	
5.7	Power	SF	2400	\$10.00	\$24,000.00	
				Sub-total	\$1,894,000.00	\$1,900,000
6	SOV Mooring/ Berthing Equipment					
6.1	Fenders	EA	2	\$75,000.00	\$150,000.00	
6.2	Bollards	EA	6	\$4,100.00	\$24,600.00	
6.3	Dolphins (mooring)	EA	0	\$665,000.00	\$0.00	
6.4	Aluminum Bridge (from pier to dolphins)	LF	0	\$1,500.00	\$0.00	
6.5	Bridge support (piles + pile cap)	LS	0	\$30,000.00	\$0.00	
				Sub-total	\$174,600.00	\$200,000
SOUTH T-PIER						
7	Demolition					
7.1	Existing finger pier demolition	SF	1720	\$100.00	\$172,000.00	
				Sub-total	\$172,000.00	\$180,000
8	New Boat Lift					
8.1	New Boat Lift	LS	1	\$1,000,000.00	\$1,000,000.00	
				Sub-total	\$1,000,000.00	\$1,000,000
9	Dredging					
9.1	Sand Dredging	CY	1110000	\$25.00	\$27,750,000.00	
9.2	Rock Dredging	CY	0	\$150.00	\$0.00	
				Sub-total	\$27,750,000.00	\$27,800,000
				Total	\$80,858,110.00	\$81,080,000
				Contingency (%)	50	\$41,000,000
				GRAND TOTAL		\$122,080,000

Table 4-10 Split-Location Option Variant C detailed cost estimate

OSW - Central California Offshore Wind Ports Assessment						
OPINION OF PROBABLE COST - MORRO BAY O & M Facility - OPTION VARIANT C						
ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST (\$/UNIT)	COST (\$)	ROUNDED COST (\$)
1	Mobilization and Demobilization					
1.1	Mobilization and Demobilization	LS	1	\$1,500,000.00	\$1,500,000.00	\$1,500,000
NORTH T-PIER						
2	Demolition					
2.1	Existing T-pier demolition	SF	16000	\$100.00	\$1,600,000.00	
	<i>Additional Yard Improvements for Laydown Area</i>					
2.2	Site Rough Grading (for 0.5 acre)	SY	2420	\$5.00	\$12,100.00	
2.3	Crushed Rock Surfacing (6" gravel bedding)	CY	403	\$70.00	\$28,210.00	
2.4	Lighting	SF	21780	\$10.00	\$217,800.00	
				Sub-total	\$1,858,110.00	\$1,900,000
3	New T-Pier (Pile supported)					
3.1	New T-Pier (Pile supported)	SF	38500	\$1,000.00	\$38,500,000.00	
3.2	Lighting	SF	38500	\$10.00	\$385,000.00	
3.3	Power	SF	38500	\$10.00	\$385,000.00	
3.4	Double Drive Swing Gate	EA	1	\$2,000.00	\$2,000.00	
				Sub-total	\$39,272,000.00	\$39,300,000
4	Finger Pier/ Floating Dock (Harbormaster & USCG)					
4.1	Finger Pier (aluminum framing)	SF	3650	\$500.00	\$1,825,000.00	
4.2	Finger Pier Piles (18" dia x 5/8" thk)	TN	50	\$5,300.00	\$265,000.00	
4.3	Vertical ladder	EA	0	\$10,000.00	\$0.00	
4.4	Lighting	SF	3650	\$10.00	\$36,500.00	
4.5	Power	SF	3650	\$10.00	\$36,500.00	
				Sub-total	\$2,163,000.00	\$2,200,000
5	Finger Pier (CTV's Floating Dock)					
5.1	Finger Pier (aluminum framing)	SF	810	\$500.00	\$405,000.00	
5.2	Finger Pier Piles (18" dia x 5/8" thk)	TN	10	\$5,300.00	\$53,000.00	
5.3	Vertical ladder	EA	0	\$10,000.00	\$0.00	
5.4	Gangway	LF	50	\$1,500.00	\$75,000.00	
5.5	Pile Supported Concrete Platform	SF	450	\$1,000.00	\$450,000.00	
5.6	Lighting	SF	810	\$10.00	\$8,100.00	
5.7	Power	SF	810	\$10.00	\$8,100.00	
				Sub-total	\$999,200.00	\$1,000,000
6	SOV Mooring/ Berthing Equipment					
6.1	Fenders	EA	2	\$75,000.00	\$150,000.00	
6.2	Bollards	EA	6	\$4,100.00	\$24,600.00	
6.3	Dolphins (mooring)	EA	1	\$665,000.00	\$665,000.00	
6.4	Aluminum Bridge (from pier to dolphins)	LF	100	\$1,500.00	\$150,000.00	
6.5	Bridge support (piles + pile cap)	LS	1	\$30,000.00	\$30,000.00	
				Sub-total	\$1,019,600.00	\$1,100,000
SOUTH T-PIER						
7	Demolition					
7.1	Existing finger pier demolition	SF	1720	\$100.00	\$172,000.00	
				Sub-total	\$172,000.00	\$180,000
8	New Boat Lift					
8.1	New Boat Lift	LS	1	\$1,000,000.00	\$1,000,000.00	
				Sub-total	\$1,000,000.00	\$1,000,000
9	Dredging					
9.1	Sand Dredging	CY	1110000	\$25.00	\$27,750,000.00	
9.2	Rock Dredging	CY	0	\$150.00	\$0.00	
				Sub-total	\$27,750,000.00	\$27,800,000
				Total	\$75,733,910.00	\$75,980,000
				Contingency (%)	50	\$38,000,000
				GRAND TOTAL		\$113,980,000

4.5.5 Split-location conceptual design summary

A conceptual layout capable of supporting O&M operations for one OSW developer was selected and refined through a series of study meetings, with three sub-variants developed, dependent on the following unknown variables:

- Vistra property purchase/leasing arrangements.
- Preferred relocation of harbor department.
- Arrangements for USCG.

When compared to the original three-developer approach, the size of the waterfront facilities to service one developer could be marginally reduced under the condition that only one SOV berth is required. The North T-Pier would still require replacement; a new purpose-built T-Pier would likely be the preferred structural form, with the north side of the T-Pier dedicated to OSW use.

The volume of capital dredging and the associated environmental impacts would be largely unchanged.

Through use of adjacent land at the Vistra property, the USCG operations could be moved off the pier, thus reducing the size of the T-Pier, lowering cost and overwater coverage. This would be subject to discussion and agreement from USCG and Harbor Dept.

It is currently assumed the SOV would in berth for up to 24hrs, before returning offshore for one-to-two-week periods. Therefore, the split-location design concept would also result in less frequent SOV activity since only one SOV would utilize the area. The split-location design concept would also result in reduced development costs and less vehicular traffic to the O&M facility. In addition, the south side of the North T-pier could potentially remain open to public use.

5 Environmental and permitting assessment

5.1 Summary

Rincon Consultants, Inc. (Rincon) has conducted an Environmental Constraints and Feasibility Analysis Report (Constraints and Feasibility Report) to help inform the Central Coast Offshore Wind O&M Infrastructure Study. The full report by Rincon is included within Appendix B.

The Study Area includes the City of Morro Bay and surrounding nearshore and coastal areas and contains sensitive terrestrial and marine resources, including environmentally sensitive habitat areas, essential fish habitat, designated critical habitat, and special status species. Development of OSW O&M facilities would require comprehensive environmental review under the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA), and coordination with multiple agencies, including the California Coastal Commission (CCC), California State Lands Commission, U.S. Army Corps of Engineers (USACE), City of Morro Bay, and resource agencies.

While recent legislation such as Senate Bill 286 provides opportunities to streamline permitting through a consolidated Coastal Development Permit (CDP), OSW O&M development in Morro Bay would remain subject to substantial regulatory review due to coastal resource sensitivities, land use constraints established by City of Morro Bay Measures A-24 and D, and public trust considerations. Furthermore, Senate Bill 286 does not preempt the City of Morro Bay's authority to require the necessary City of Morro Bay land use permits (e.g., Conditional Use Permits), rezoning, and land use designation changes, in accordance with the City's zoning code and applicable voter initiatives. The following broad steps and agency approvals would be anticipated to be required to permit development of the least constrained concept designs:

- City of Morro Bay and USACE adopt CEQA and NEPA documents for OSW O&M facilities.
- City of Morro Bay approves a land use and zoning designation change at the North T-Pier to permit OSW O&M facility development (applies to all the least constrained concept designs). The land use element map change would be subject to voter approval, in addition to Planning Commission, City Council, and Coastal Commission approval, in accordance with Measure A-24. Development would have to comply with Measure D use limitations, which prioritize commercial fishing.
- City of Morro Bay approves land use and zoning designation change via a voter ballot initiative, to permit an Intermediate Staging Zone facility within the Vistra properties (applies to Option 4A, Split Location Variant B, and Split Location Variant C). The land use element map change would be subject to voter approval, in addition to Planning Commission, City Council, and Coastal Commission approval, in accordance with Measure A-24. Development would have to comply with Measure D use limitations, as applicable, which prioritize commercial fishing.
- City of Morro Bay issues a Conditional Use Permit for OSW O&M facilities (applies to all of the least constrained concept designs).
- Federal and State environmental resources agencies (e.g., USACE, National Marine Fisheries Service, California Department of Fish and Wildlife, etc.) issue environmental permits (e.g., Clean Water Act Section 404 permit[s], Federal Endangered Species Act Section 7 incidental take statement[s], etc.).

- CCC issues a consolidated CDP.

OSW O&M development is potentially inconsistent with the City's current and recently updated General Plan, Zoning Code, and voter initiatives, all of which prioritize visitor serving and commercial fishing uses on the City's waterfront. Additionally, with a grant from the California Coastal Commission, the City is currently updating its Waterfront Master Plan to reinforce the existing zoning and General Plan designations and to further define its vision for transitioning former industrial and utility sites into visitor serving, recreational, cultural, and commercial fishing uses. While OSW O&M development is potentially feasible from an environmental and regulatory perspective, it would potentially require land use and zoning changes following the City of Morro Bay's entitlement process, including voter approval of land use designation changes in accordance with Measure A-24. Given this regulatory context, any future OSW developer would need to conduct significant public outreach, including community workshops to determine the actual feasibility of such facilities.

6 Summary

6.1 Conclusions

Waterfront facilities at Morro Bay were assessed for their potential in supporting Operations and Maintenance (O&M) activities for the offshore wind OSW industry. Using minimum functional requirements agreed with the Study Team, opportunities and constraints for the Morro Bay Waterfront study site were identified and technically viable options were developed as independent concept designs.

For an O&M facility serving multiple developers, Option 4 was selected for further evaluation based on site characteristics, and two strategic development scenarios were developed to cover potential property acquisition outcomes. For an O&M facility serving one developer, three variants (A, B, C) were developed covering different property acquisition outcomes.

Pre-feasibility level conceptual layouts and construction and dredging cost estimates were developed to inform future decision-making processes. The key findings were as follows:

- **O&M facility serving three developers:** The existing waterfront infrastructure at Morro Bay has the physical characteristics needed to support the development of an O&M facility to service the OSW industry. While key physical factors such as the presence of a natural channel and availability of land parcels with waterfront access makes development a viable option, Morro Bay also faces challenges from a congested navigation channel and dilapidated marine infrastructure. Development would require a complete rebuild of the North T-Pier to support the navigation and berthing of OSW vessels. Construction cost estimates for the least constrained alternatives were estimated to be approximately \$130 to \$140 million, but may be in the range of \$90 to \$210 million according to the Advancement of Cost Estimating's Class 5 cost estimate scheme (-30% to +50%) for concept-level assessments.
- **O&M facility serving one developer (Split-Location Option):** To investigate the feasibility of simultaneously utilizing Morro Bay and San Luis Obispo Bay for OSW O&M activities, several conceptual designs were prepared using a reduced set of functional requirements applicable to having a single OSW developer operating at Morro Bay. A conceptual layout involving the complete reconstruction of the North T-Pier capable of supporting O&M operations was selected as the least constrained alternative, with three sub-variants made available based on different Vistra property agreement outcomes. This split-location option kept the South portion of the North T-Pier publicly accessible and was expected to have a reduced impact on the local fabric of the City. Cost estimates for the Split-Location alternatives were estimated to be approximately \$114 to \$122 million, but may be in the range of \$80 to \$183 million according to the Advancement of Cost Estimating's Class 5 cost estimate scheme (-30% to +50%) for concept-level assessments.
- **Dredging:** Significant dredging would be expected to lower the mudline elevation to -30 feet Mean Lower Low Water (MLLW) for SOV access into the bay, with a high-level volume estimate of 1.1 million cubic yards (CY). Dredging methods would likely be consistent with those that have been used in the past, such as Trailing Suction Hopper Dredge (TSHD) and Cutter Suction Dredge (CSD). Sandy sediment that has been dredged may see beneficial reuse as beach nourishment at the Morro Strand State Beach for habitat creation and erosion control, or placement at the nearshore placement area off the Morro Bay State Park sand spit. The associated dredging cost is projected to be in the order of \$25-30 million but could potentially be reduced by optimizing the turning basin layout with support from an

analysis of ship simulators. It is also noted that by deepening the navigation channel, waves propagating through the harbor entrance would have a reduced height, improving navigability to recreational and fishing vessels. This change in wave conditions has potential to trigger a change in the mission of the USCG facility from a surf station to a security station.

● **Permitting (Rincon, 2026):**

- The study area contains sensitive terrestrial and marine resources, including environmentally sensitive habitat areas, essential fish habitat, designated critical habitat, and special status species. Development of OSW O&M facilities would require comprehensive environmental review under the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA), and coordination with multiple agencies, including the California Coastal Commission (CCC), California State Lands Commission, U.S. Army Corps of Engineers (USACE), City of Morro Bay, and resource agencies.
- The Permitting Assessment concluded that an O&M development would be potentially inconsistent with the City's current and recently updated General Plan, Zoning Code, and voter initiatives, all of which prioritize visitor serving and commercial fishing uses on the City's waterfront. Additionally, with a grant from the California Coastal Commission, the City is currently updating its Waterfront Master Plan to reinforce the existing zoning and General Plan designations and to further define its vision for transitioning former industrial and utility sites into visitor serving, recreational, cultural, and commercial fishing uses. While OSW O&M development is potentially feasible from an environmental and regulatory perspective, it would potentially require land use and zoning changes following the City of Morro Bay's entitlement process, including voter approval of land use designation changes in accordance with Measure A-24. Given this regulatory context, any future OSW developer would need to conduct significant public outreach, including community workshops to determine the actual feasibility of such facilities.

In summary, the study found that the reconstruction of the North T-Pier as a purpose-built OSW O&M facility would be technically viable from a construction perspective, owing to the adjacent industrial land and sheltered waterway. However, such a development would face multiple challenges that would need to be resolved in the pursuit of sustainable development. The outstanding issues include the following:

- Environmental concerns due to the extent of dredging required, and the increase in maritime and road traffic.
- Changes to the waterfront viewscape and waterfront character, conflicts with coastal access, commercial fishing, marine life, and recreational uses.
- Fueling arrangements (excluded from this study due to uncertainty on vessel fueling methods and electrification).
- Onerous permitting process due to potential inconsistency with the General Plan, Zoning Code, and voter initiatives, as well as environmental impacts and potential impacts to a federal facility and the FNC channel.
- Relatively high capital investment costs due to the necessity to construct a new T-Pier to accommodate the expected vessel and material loads.

6.2 Next steps

Below are additional activities which could be conducted for further investigation for an OSW O&M facility at Morro Bay:

- Technical
 - Conduct ship simulation and review turning basin layout for dredge volume optimization.
 - Conduct detailed coastal engineering analyses such as circulation modelling, wave modelling, and vessel motion analysis. This is to better understand environmental loading conditions and determine the need of other coastal structures, such as training walls and expected maintenance dredging volumes.
 - Undertake a mooring assessment to estimate downtime associated with adverse environmental conditions not suitable for quayside operations.
 - Detailed geotechnical and structural analysis to confirm design assumptions.
 - Detailed construction schedules.
 - Construction phasing to ensure USCG and Harbor Department operations are not impeded during construction.
 - Better understand fueling requirements of developers and potential impacts on the waterfront masterplan.
 - Cost estimates for excluded items and capital cost comparison between Morro Bay and other candidate OSW O&M sites, and review of economic benefits.
- Social
 - Potential advantages to waterfront and to the City of Morro Bay should be assessed.
 - Undertake stakeholder and public engagement.
 - Coordination with waterfront parcel owners and an assessment of impacts on local business and mitigation strategies.
 - Skilled labor workforce estimates.
- Environmental and permitting
 - Identify, inform, and engage with stakeholders involved in the permitting process including but not limited to: U.S. Army Corps of Engineers (USACE), U.S. Coast Guard (USCG), U.S. Fish and Wildlife Service, and other relevant federal, state, and local agencies.

7 References

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Appendices

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A. Basis of design

CA Central Coast OSW Phase II

Basis of Assessment



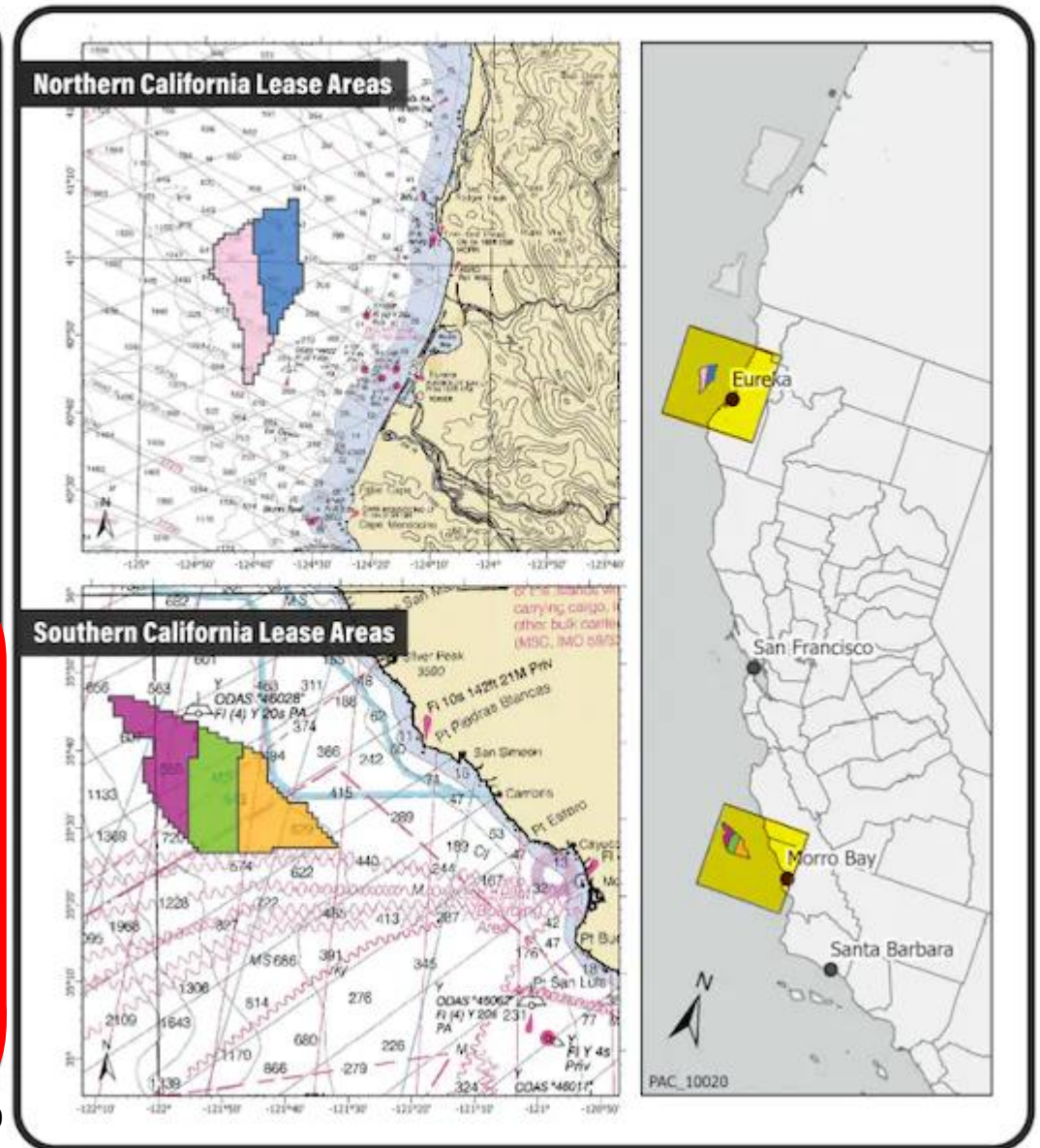
Agenda

- 1** Introduction - What is an O&M facility and why is it needed
- 2** Study Approach
- 3** Functional requirements
- 4** Site conditions and Constraints Map
- 5** GIS session (Rincon)

What is an O&M facility and why is it needed

Potential Energy Impact of the California Lease Areas

LEASE AREA	DEVELOPABLE ACRES	INSTALLATION CAPACITY (MW) ⁽¹⁾	POWER PRODUCTION (MWh/yr) ⁽²⁾	HOMES POWERED ⁽³⁾
OCS-P0561	63,338	769	2,694,436	269,136
OCS-P0562	69,031	838	2,936,632	293,328
OCS-P0563	80,062	972	3,405,888	340,200
OCS-P0564	80,418	976	3,421,025	341,712
OCS-P0565	80,418	976	3,421,025	341,712



DRAFT



Morro Bay Wind Energy Area

Morro Bay

San Luis Obispo Bay

SLO County

California



What is an O&M facility and why is it needed

Depending on contractual agreement and developer maturity various scope of services are arranged to balance risk and cost control.

Foundations and cables

- Typically performed on an ad-hoc basis by contractors
- Routine visual inspections
 - ROVs, divers checking foundations or cable routes for burial issues
 - Mooring inspections
- Structural integrity checks
 - Structural analysis
 - Structural repairs
 - Fatigue: main consideration (from WTG and Metocean)
- Maintenance campaigns
 - Remove marine growth
 - Replace damaged anodes
 - Repair painting



WTGs

- Usually performed by the OEM in the first years at least
- Regular WTG inspection regime
 - Scheduled maintenance (3 – 6 – 12-month plans)
- Unscheduled maintenance
 - Alarms
 - Reactive inspections
 - Major maintenance

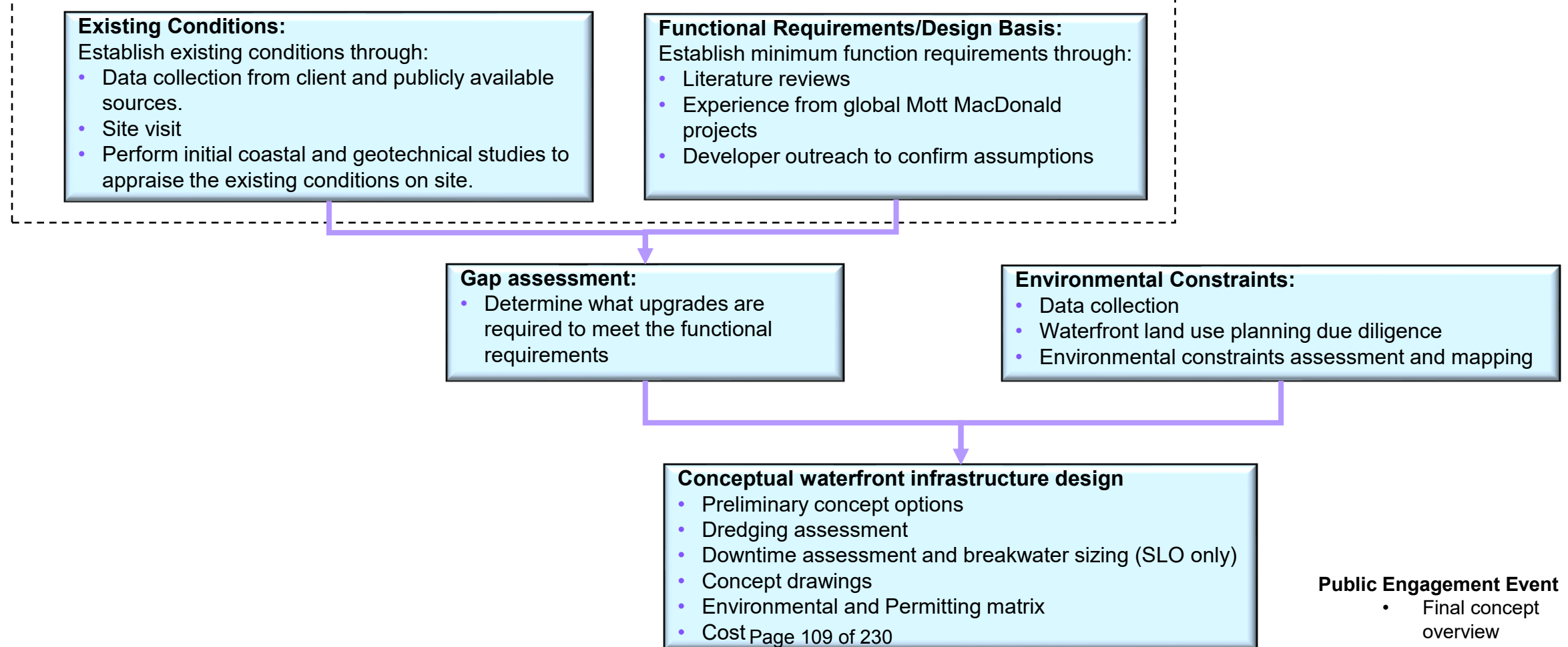


Study Approach

Study Approach

How will we determine the feasibility of an O&M port in this location

Basis of Assessment:





Functional Requirements

Functional Requirements

Design Vessels

Functional requirements preliminary and subject to developer outreach



Vessel	Service Operation Vessel (SOV)
Purpose	Supports multi-day O&M trips, provides accommodations for wind farm workers and assists with servicing and repairing wind turbines
Length	300 ft
Draft	25ft
Beam	75ft



Vessel	Service Accommodation Transfer Vessel (SATV)
Purpose	Combines elements of SOV and CTV to provide a smaller live aboard vessel for technicians. Heavy equipment not required.
Length	130 ft
Draft	16ft
Beam	50ft



Vessel	Crew Transfer Vessel (CTV)
Purpose	These vessels are used to transport and shuttle wind farm technicians and other personnel out to sites on a daily basis. No live aboard accommodation.
Length	90ft
Draft	10ft
Beam	30ft

BoD Recap

Definitions

Quayside Staging Apron (≥ 0.5 acres)

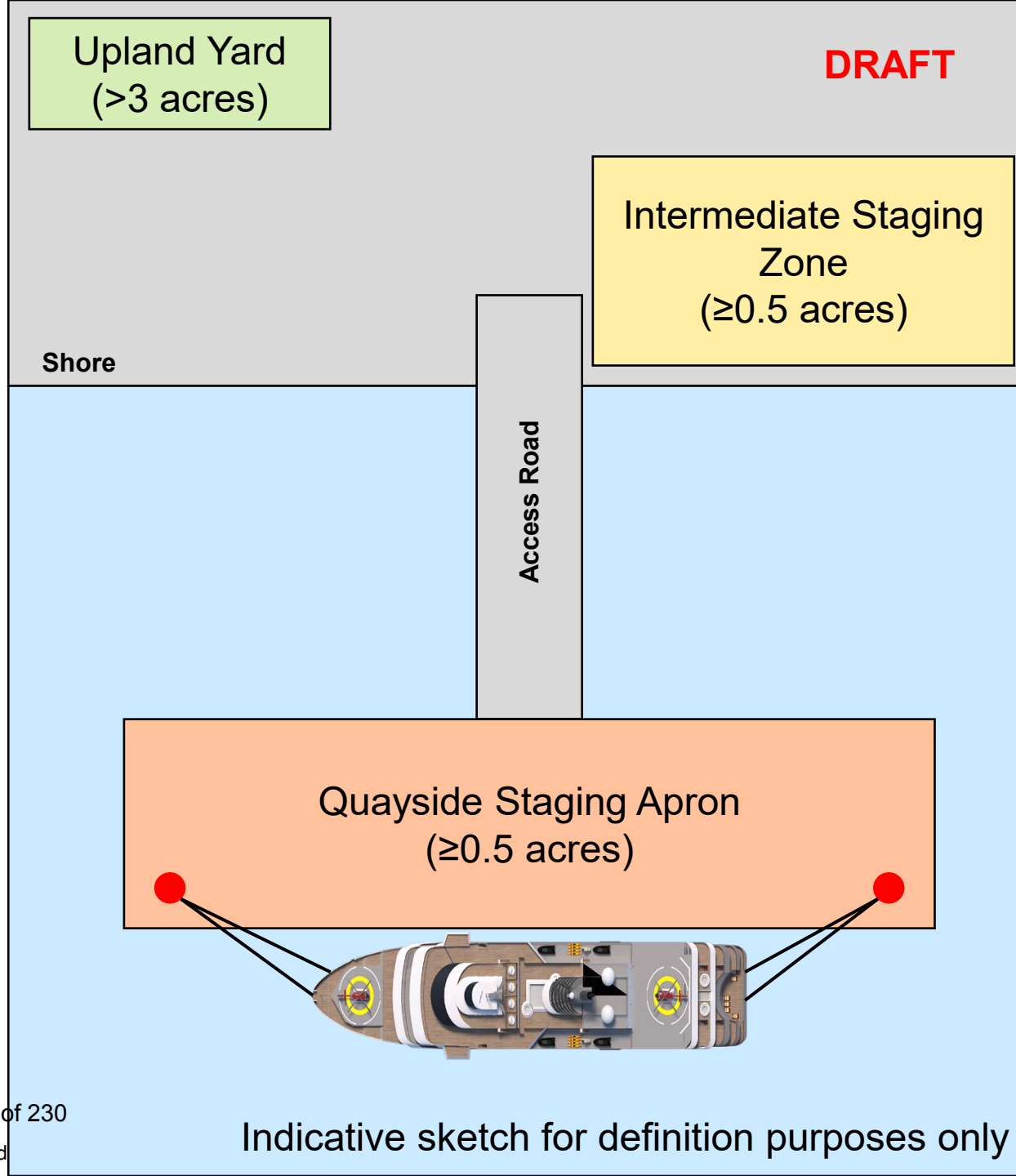
- Immediately adjacent to quay wall
- Area for SOV/CTV operations, short term material staging and transfers (materials & personnel)

Intermediate Staging Zone (≥ 0.5 acres)

- Buffer area between the quay and upland yard
- Positioned near the quay but not required to be on the pier itself.
- Used for short term staging, and pre/post vessel operations.
- Includes a small welfare unit, and a small parking lot for personnel shuttle services

Upland Yard (>3 acres)

- Warehouses, workshops, and office space
- Dedicated space for inventory, spare parts, anchor chains, and long-term containerized storage
- Staff parking included



Functional Requirements

Berths

Berth Depth (REACH)

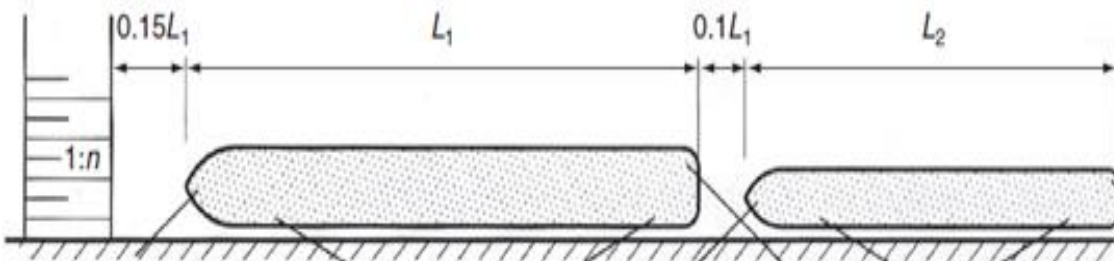
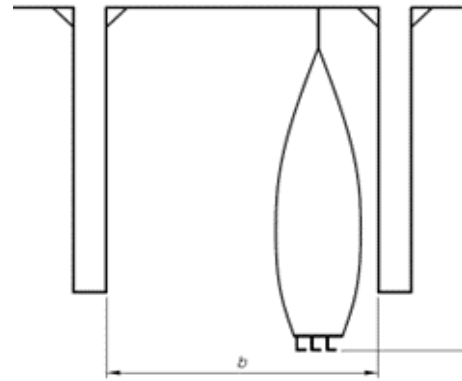
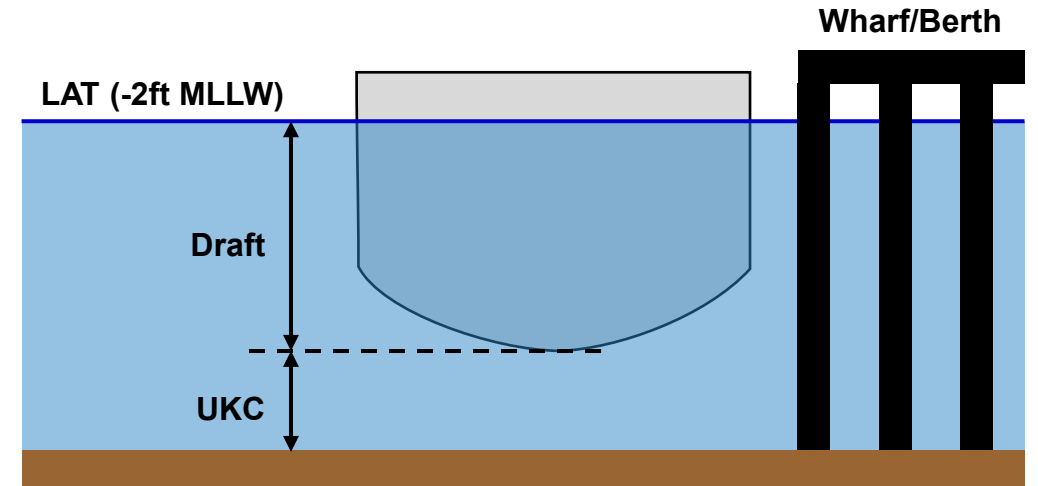
- Under keel clearance (UKC) 10% of draft

Berth Length (Port Designer's Handbook)

- 10% of LOA between vessels
- 15% of LOA at both ends of the vessel

Finger Pier Width (AS 3962)

- 2x maximum beam + 5ft



Vessel Draft	Design Water Level	UKC [ft]	Concept Berth Bed Elevation [ft MLLW]
10ft (CTV)	LAT (-2ft MLLW)	1.0	-13.0
12ft		1.2	-15.2
16ft (SATV)		1.6	-19.6
20ft		2.0	-24.0
25ft (SOV)		2.5	-29.5

Functional Requirements

Berths

Harbor tranquility in operational conditions

- Facility should remain operational in all storm events up to the limit of offshore design vessel operations
- Offshore vessels (CTV Mothership) can operate in up to 8-10 ft waves.
- Assume inshore O&M facility is not operational when offshore waves exceed 8-10 ft

Harbor tranquility in storm conditions

- Facility should provide safe harbor for vessels in a storm event that might probabilistically be expected in a 1 in 100year return period.
- Wave conditions TBD and beyond scope of study.

Functional Requirements

Turning Basin

Turning Basin Diameter (PIANC)

- Depends on vessel maneuverability and presence of bow thrusters and Dynamic Positioning (DP) systems.
- Minimum 2x LOA, unless ship simulations undertaken.
- Existing turning basin diameter ~400ft (REACH)
- It is noted that most vessels used in O&M applications will be highly maneuverable with ability to turn on a dime, however allowance should be made for wind, currents, and avoidance of small recreational craft.

LOA	Minimum Diameter
90ft (CTV)	180ft
130ft (SATV)	260ft
200ft (Yakima)	400ft
300ft (SOV)	600ft



Functional Requirements

Navigation Channel

Extents

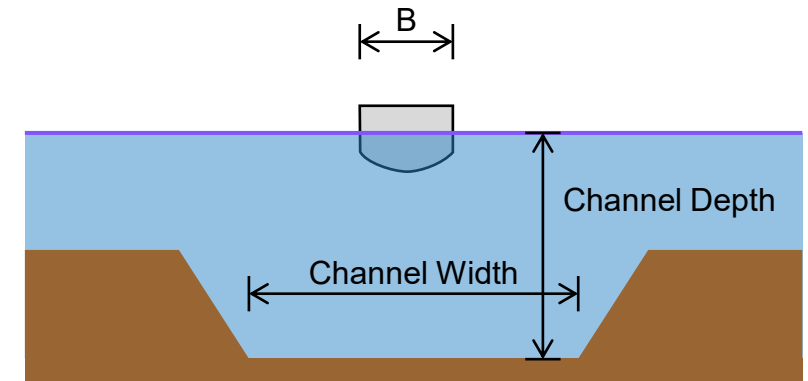
- TBD

Channel Depth

- For sheltered conditions, assume Channel Depth is draft of largest vessel +3ft UKC.
- Assume SOV not operational at LAT as tides can be planned around.
- Assume all vessels to be operational at MLLW.
- Preliminary channel depth:
 - 28ft below MLLW for SOV channel
 - 19ft below MLLW, assuming SOV not required (subject to developer outreach)
- Note, UKC to be refined upon assessment of wave climate

Channel Width

- Assume one-way traffic for SOVs
- Channel width 2-2.5x beam of largest vessel





Morro Bay - Site Conditions and Constraints

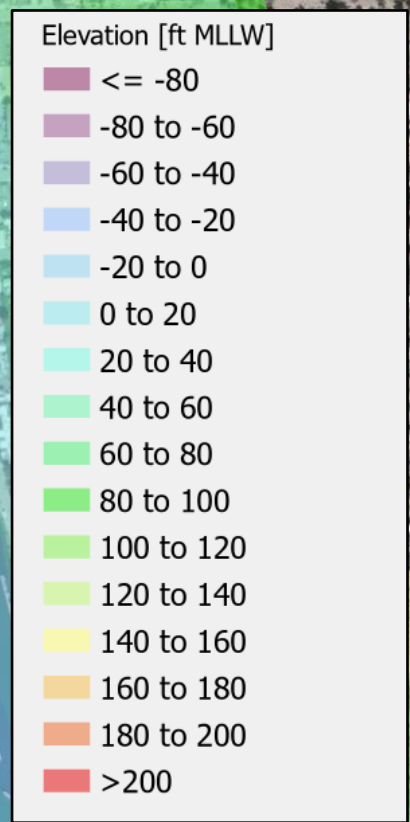
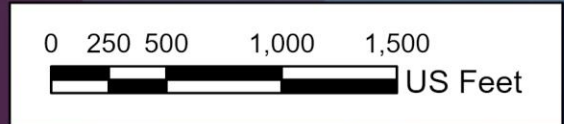
Federal Navigation Channel



Measure D: Morro Bay law, known as “Measure D” stipulates that no new development can occur within the state-owned tidelands subject to city lease between Beach Street and Target Rock unless its primary use is commercial and noncommercial recreational fishing.

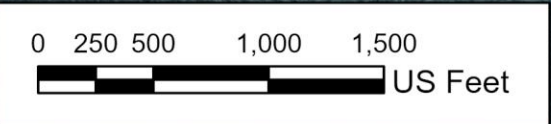
Figure & excerpt from REACH report (2022)

DRAFT





Hillshade figure generated using
USACE's survey data (2024-06-27)



MPA

Notes

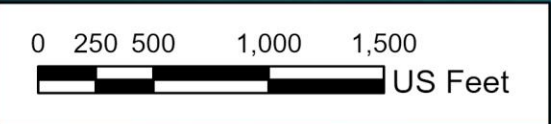
- State MPA
- Covers entire back bay





Legend

- NOAA Charted Obstructions
- Aids to Navigation
- Obstruction
- Wreck
- State Parks
- Pipeline Areas
- Anchorage Areas
- Marine Protected Areas (MPAs)
- Federal Navigation Channel
- Eelgrass



B. Environmental constraints and feasibility analysis report (Rincon, 2026)



County of San Luis Obispo Operations and Maintenance Waterfront Infrastructure and Site Readiness Plan Study: City of Morro Bay

Environmental Constraints and Feasibility Analysis Report

prepared for

Mott MacDonald

prepared by

Rincon Consultants, Inc.

1530 Monterey Street, Suite D
San Luis Obispo, California 93401

April 2026

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1 Executive Summary

Rincon Consultants, Inc. (Rincon) prepared this Environmental Constraints and Feasibility Analysis Report (Constraints and Feasibility Report) to support the Central Coast Offshore Wind Operations and Maintenance (OSW O&M) Infrastructure Study – Morro Bay (the Study), led by Mott MacDonald. The Study evaluates the feasibility of developing shore-based OSW O&M facilities to support offshore wind infrastructure in the Morro Bay Wind Energy Area. The Study evaluates multiple concept designs at two primary infrastructure locations, the North T-Pier and South T-Pier, and identifies five “least constrained” concepts. This Constraints and Feasibility Report evaluates the environmental feasibility of those least constrained concepts through a desktop-level analysis focused on the Study Area as a whole, as well as a refined Area of Potential Effects, addressing land use regulations, biological resources, environmental review requirements, and federal, State, and local permitting processes.

The Study Area includes the City of Morro Bay and surrounding nearshore and coastal areas and contains sensitive terrestrial and marine resources, including environmentally sensitive habitat areas, essential fish habitat, designated critical habitat, and special status species. Development of OSW O&M facilities would require comprehensive environmental review under the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA), and coordination with multiple agencies, including the California Coastal Commission (CCC), California State Lands Commission, U.S. Army Corps of Engineers (USACE), City of Morro Bay, and resource agencies.

While recent legislation such as Senate Bill 286 provides opportunities to streamline permitting through a consolidated Coastal Development Permit (CDP), OSW O&M development in Morro Bay would remain subject to substantial regulatory review due to coastal resource sensitivities, land use constraints established by City of Morro Bay Measures A-24 and D, and public trust considerations. Furthermore, Senate Bill 286 does not preempt the City of Morro Bay’s authority to require the necessary City of Morro Bay land use permits (e.g., Conditional Use Permits), rezoning, and land use designation changes, in accordance with the City’s zoning code and applicable voter initiatives. The following broad steps and agency approvals would be anticipated to be required to permit development of the least constrained concept designs:

- City of Morro Bay and USACE adopt CEQA and NEPA documents for OSW O&M facilities.
- City of Morro Bay approves a land use and zoning designation change at the North T-Pier to permit OSW O&M facility development (applies to all the least constrained concept designs). The land use element map change would be subject to voter approval, in addition to Planning Commission, City Council, and Coastal Commission approval, in accordance with Measure A-24. Development would have to comply with Measure D use limitations, which prioritize commercial fishing.
- City of Morro Bay approves land use and zoning designation change via a voter ballot initiative, to permit an Intermediate Staging Zone facility within the Vistra properties (applies to Option 4A, Split Location Variant B, and Split Location Variant C). The land use element map change would be subject to voter approval, in addition to Planning Commission, City Council, and Coastal Commission approval, in accordance with Measure A-24. Development would have to comply with Measure D use limitations, as applicable, which prioritize commercial fishing.
- City of Morro Bay issues a Conditional Use Permit for OSW O&M facilities (applies to all of the least constrained concept designs).

County of San Luis Obispo Operations and Maintenance Waterfront Infrastructure and Site Readiness Plan Study: City of Morro Bay

- Federal and State environmental resources agencies (e.g., USACE, National Marine Fisheries Service, California Department of Fish and Wildlife, etc.) issue environmental permits (e.g., Clean Water Act Section 404 permit[s], Federal Endangered Species Act Section 7 incidental take statement[s], etc.).
- CCC issues a consolidated CDP.

OSW O&M development is potentially inconsistent with the City's current and recently updated General Plan, Zoning Code, and voter initiatives, all of which prioritize visitor serving and commercial fishing uses on the City's waterfront. Additionally, with a grant from the California Coastal Commission, the City is currently updating its Waterfront Master Plan to reinforce the existing zoning and General Plan designations and to further define its vision for transitioning former industrial and utility sites into visitor serving, recreational, cultural, and commercial fishing uses. While OSW O&M development is potentially feasible from an environmental and regulatory perspective, it would potentially require land use and zoning changes following the City of Morro Bay's entitlement process, including voter approval of land use designation changes in accordance with Measure A-24. Given this regulatory context, any future OSW developer would need to conduct significant public outreach, including community workshops to determine the actual feasibility of such facilities.

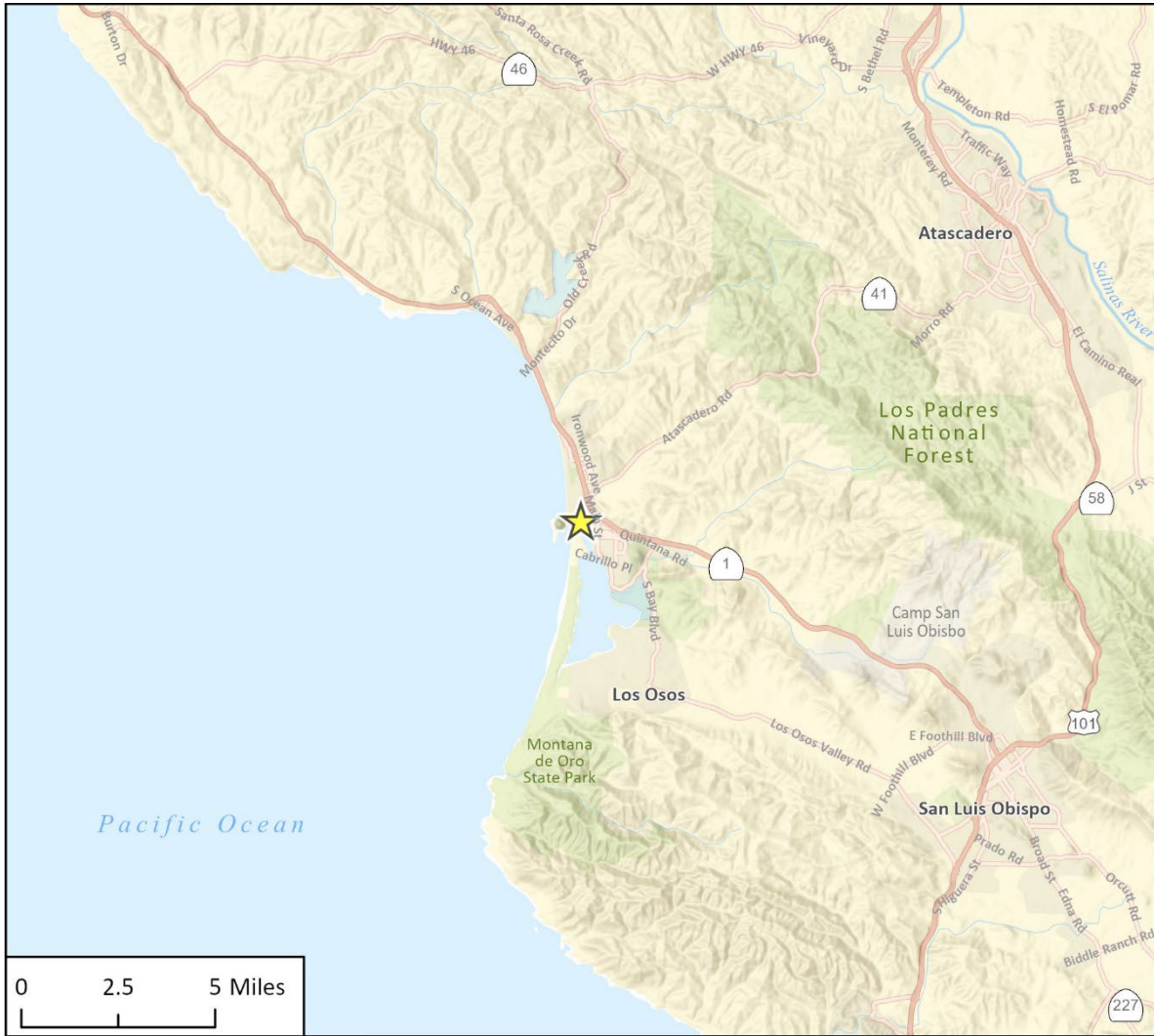
2 Introduction

Rincon Consultants, Inc. (Rincon) prepared this Environmental Constraints and Feasibility Analysis Report (Constraints and Feasibility Report) for Mott MacDonald to inform the Central Coast Offshore Wind Operations and Maintenance Infrastructure Study—Morro Bay (the Study) commissioned by the County of San Luis Obispo (County) for the purposes of evaluating the requirements of an Offshore Wind (OSW) Operations and Maintenance (O&M) shore based facilities to serve offshore wind projects in the Morro Bay Wind Energy Area. The Study examines OSW O&M facility sites and conceptual designs in the Morro Bay Study Area (Study Area). The purpose of this Constraints and Feasibility Report is to identify, evaluate, and perform a technical analysis of the environmental planning, resources, and permitting constraints related to the conceptual designs identified in the Study for Morro Bay.

2.1 Study Area

The Study Area encompasses the City of Morro Bay, located in San Luis Obispo County, California (Figure 1). The Study Area is within the *Morro Bay North* and *Morro Bay South, California* United States Geological Survey (USGS) 7.5-minute topographic quadrangles. The Public Land Survey System depicts the Study Area within Township 29S, Range 11E, Sections 11, 13-14, 23-26, 30-32, and 35-26 and Township 30S, Range 10E, Sections 01, 02, 05, and 06, Mount Diablo Meridian. The Study Area encompasses all of Morro Bay Harbor, as well as landside portions the City of Morro Bay. The Study Area includes a total of approximately 3,352 acres of land and approximately 2,931 acres of water, including intertidal or submerged lands below Mean High Water (MHW) (Figure 2).

Figure 1 Regional Location Map



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23-14713 B10 Morro Bay
 Fig 1 Regional Location

★ Study Area

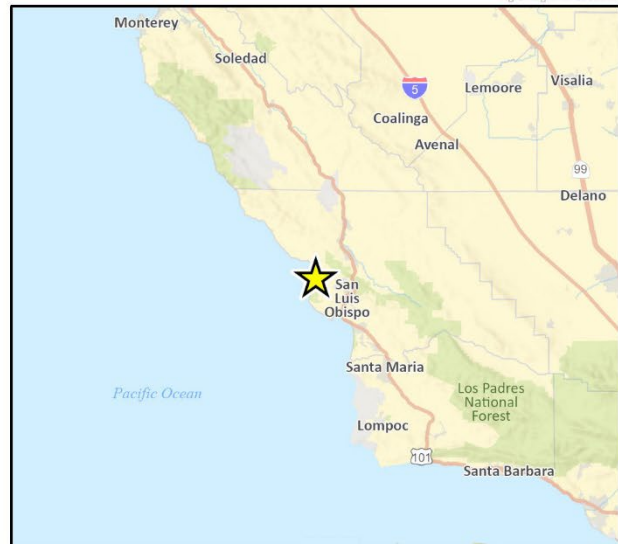
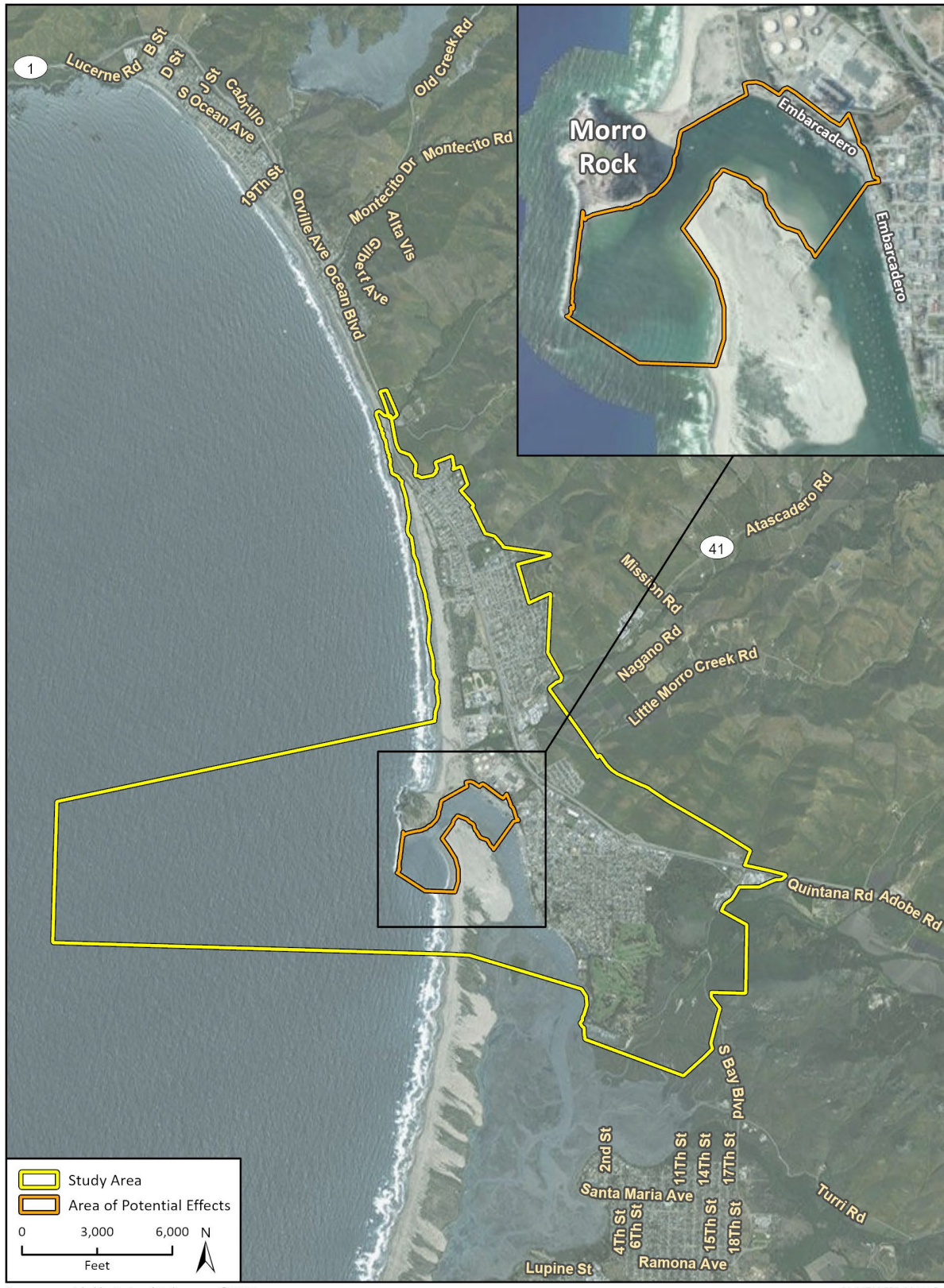


Figure 2 Study Area and Area of Potential Effects



2.2 Study Description

San Luis Obispo County, as part of Assembly Bill (AB) 178, was awarded a \$1,000,000 earmark for “the Deep Water Port Feasibility Study for Offshore Wind Procurement” and the County selected Mott MacDonald to complete a technical analysis pertaining to topics related to OSW O&M facility development. The Study, prepared by Mott MacDonald, provides an analysis of infrastructure, workforce development, and environmental matters pertaining to OSW O&M sites and identifies a range of concept designs that include a diversity of nearshore ocean, waterfront, and land development components and locations. Rincon, as part of the Mott MacDonald team, is serving as the local and regional environmental planning and permitting technical expert and works as an integrated Study team member to develop environmental constraints and feasibility assessments for the OSW O&M infrastructure concept designs described in the Study.

Mott MacDonald identified potential OSW O&M facility sites in Morro Bay as the first step in developing the Study. Site options were informed by previous siting studies and the functional requirements such as area, length, depth, and capacity needed to support OSW O&M vessels, maintenance activities, material and equipment storage, and administrative functions. The sites identified for the development of concept designs included areas centered around the North and South T-Piers in the northern portion of Morro Bay. Once site options were selected, concept designs were developed based on vessel berthing and operational requirements drawn from prior studies and direct coordination with OSW developers holding lease agreements in the Morro Bay Wind Energy Area. A functional requirements Basis of Assessment (BOA), described in detail in the Study, was developed to evaluate the potential sites and concept designs identified based on OSW O&M functional requirements alongside land use, environmental, and community considerations. Study Participants then scored the concept designs to identify the least constrained options. The sites and concept designs were evaluated and scored through collaborative virtual and in person meetings, site visits, and information sharing involving study participants including Mott MacDonald, Rincon, the County, City of Morro Bay, Morro Bay Harbor Department, California Coastal Commission (CCC), California State Lands Commission (CSLC), and U.S. Coast Guard (USCG). The Study describes the process of arriving at the initial concept designs and additional concept design modifications, identifies the least constrained concept designs, and reviews the land use and environmental constraints, and estimated OSW O&M development costs and timelines for the concept designs to inform future siting and decision making around OSW O&M facilities in Morro Bay.

The Study considers seven concept designs (including the Do Nothing concept), some of which include multiple variants. Three of the concept designs (Do Minimum, Option 1, and Option 2) would involve use of both the North and South T-Piers for OSW O&M facilities and activities. Three of the concept designs (Option 3, Option 4, and Split Location) would limit OSW O&M facilities and activities to the North T-Pier. Additionally, several concept designs (Option 1, Option 3, Option 4, and Split Location) include the purchase or lease of space on the Vistra properties located in the north of the Morro Bay harbor for development of an Intermediate Staging Zone and/or Upland Yard. The Intermediate Staging Zone would be a secure site used for short-term equipment and material staging, pre/post vessel operations, and personnel shuttle parking. The Upland Yard would be utilized for long-term O&M facilities, including warehouses, office space, workshops, and staff parking. For a full list of all the concept designs considered, refer to Table 4.4 and Section 4.6 of the Study.

As described in depth in the Study, Option 4 was determined to be the least constrained concept design. Two variants for Option 4 were developed to cover potential property acquisition and leasing outcomes, as described below:

- **Option 4A: Development of O&M facility with partial acquisition of the Vistra Waterfront Property.** Existing USCG and Morro Bay Harbor Department offices would remain in place with access to upgraded finger piers. An Intermediate Staging Zone would be developed on the acquired portion of the Vistra property. Refer to Figure 4.
- **Option 4B: Development of O&M facility without acquisition of the Vistra Waterfront Property.** An Intermediate Staging Zone would be constructed in the “triangle lot” north of the Morro Bay Maritime Museum. The USCG and Morro Bay Harbor Department offices would remain in place with access to upgraded finger piers. Refer to Figure 5.

In addition, a split-location conceptual design, which would be utilized in the event that the Morro Bay OSW O&M facility would only host one (rather than three) OSW developers, was also considered in the Study. Three variants of the Split-Location concept design, all using the same base design, were developed, as described below:

- **Split Location Variant A: Development of the O&M facility without acquisition or leasing of Vistra property.** The existing North T-Pier would be reconstructed. The Morro Bay Harbor Department and the USCG office would remain in place. A new USCG facility or hut could be constructed on the north tip of the pier head, and the Morro Bay Harbor Department would either have access to the existing USCG building or an adjacent plot such as a conversion of the public restrooms. The Intermediate Staging Zone could be located within the “triangle lot”, north of the Morro Bay Maritime Museum. Refer to Figure 6.
- **Split Location Variant B: Development of the O&M facility with a lease or purchase arrangement for the Vistra waterfront property.** Similar to Variant A, the existing North T-Pier would be reconstructed. The Morro Bay Harbor Department office would be demolished and the USCG office would remain in place. A new USCG facility or hut could be constructed on the north tip of the pier head, and the Morro Bay Harbor Department would either have access to the existing USCG building or an adjacent plot such as a conversion of the public restrooms. The Intermediate Staging Zone would be located within the Vistra waterfront property. Refer to Figure 7.
- **Split Location Variant C: Development of the O&M facility with a lease or purchase arrangement for the Vistra Waterfront Property and Power Station property.** The existing North T-Pier would be reconstructed. The Morro Bay Harbor Department office would be demolished. A new Morro Bay Harbor Department office could either be constructed above the existing public restrooms, or a new building on the Vistra waterfront property could host both USCG and Harbor Department, with secure berths. The intermediate staging zone would be located on the opposite side of Embarcadero on the Vistra powerplant property. Refer to Figure 8.

Figure 3 Option 4A Concept Design

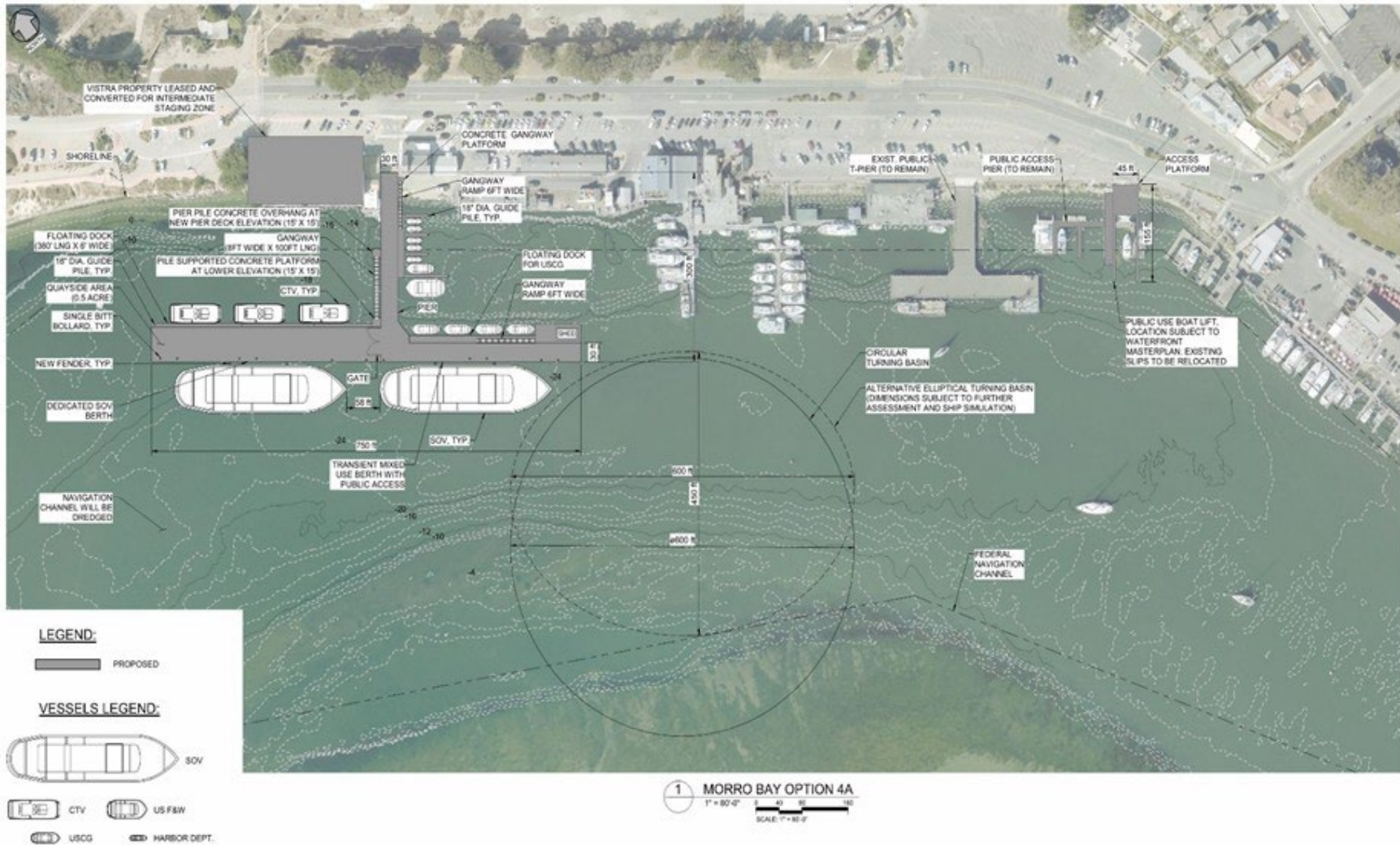


Figure 5 Split Location Variant A Concept Design



Figure 6 Split Location Variant B Concept Design



Figure 7 Split Location Variant C Concept Design



2.3 Purpose and General Methodology of this Constraints and Feasibility Report

This Constraints and Feasibility Report, included as Appendix C of the Study, is intended to assist the Study Team with evaluating land use, environmental review, biological resource, and regulatory permit constraints, processes, anticipated timelines, and estimated costs for studies and permitting to develop OSW O&M facilities in Morro Bay, including the least constrained concept designs. This Constraints and Feasibility Report is not intended to select or identify a preferred concept design but rather to define and describe the environmental review and resource parameters and considerations that would be needed for the development of an OSW O&M facility in the Study Area.

This Constraints and Feasibility Report provides a comprehensive assessment of land use, environmental planning, and biological resources constraints within the Study Area based on a desktop review. The assessment of landside locations was conducted based on Assessor Parcel Number (APN) size and proximity to the Morro Bay harbor. Parcels of one to 100 acres within the Study Area were reviewed for feasibility of development of OSW O&M facilities. During the development and evaluation of potential concept designs for OSW O&M facilities, significant portions of the Study Area were removed from future consideration due to operational, resource, or land use constraints. Therefore, this Constraints and Feasibility Report also provides a refined analysis that focuses on an Area of Potential Effects (APE) based on the least constrained concept designs identified in the Study. The APE is illustrated in (Figure 2).

This Constraints and Feasibility Report contains a detailed review of 1) regional and local land use ordinances; 2) environmental planning and associated special studies needed; 3) biological resources in the Study Area and APE; and 4) regulatory agency approvals and permitting considerations for the least constrained concept designs.

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3 Land Use and Zoning Setting

3.1 Environmental Setting

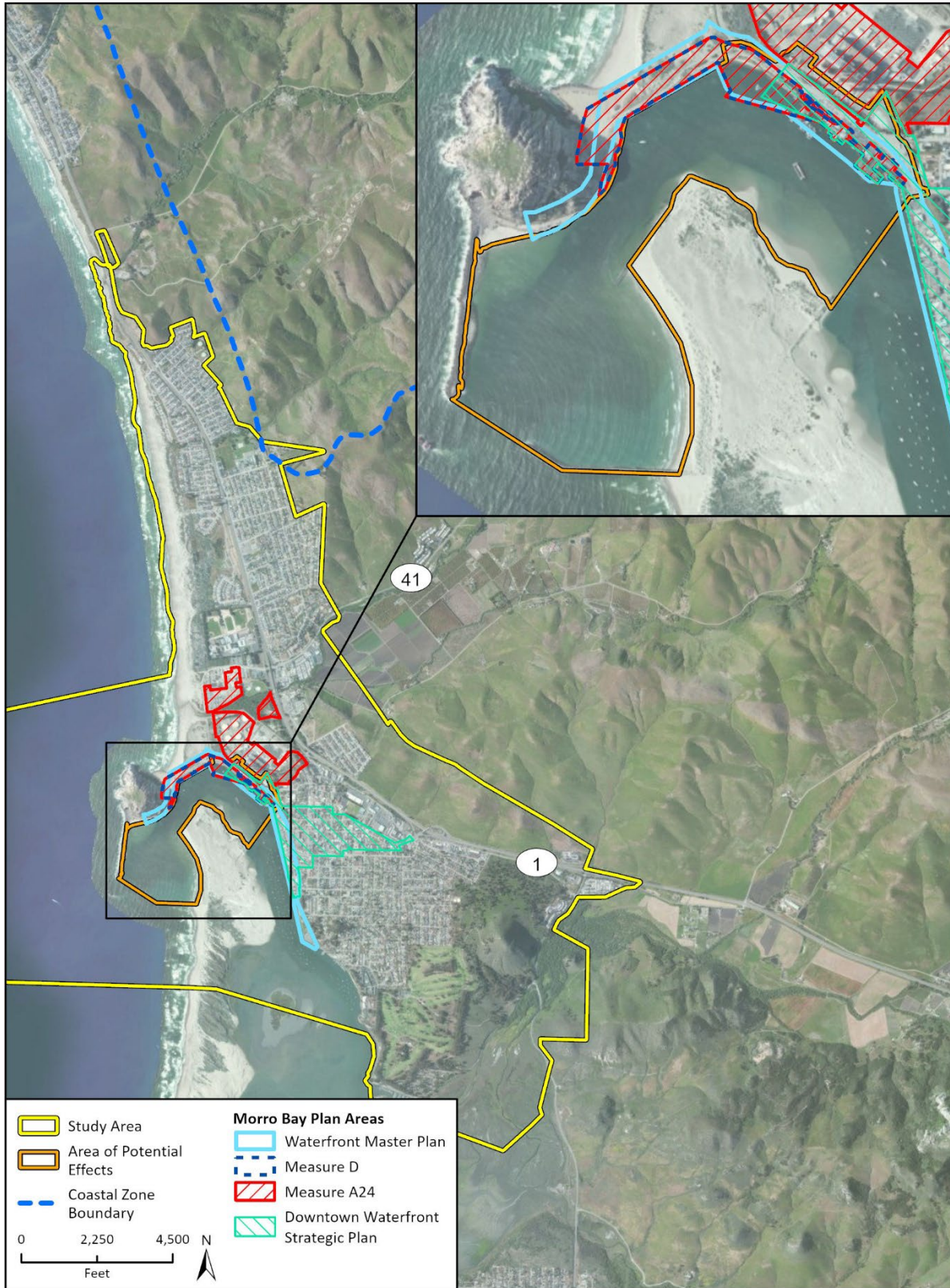
The Study Area is limited to land within the City of Morro Bay (City) and is entirely within the Coastal Zone. The land uses within the Study Area are governed by the Morro Bay General Plan and zoning code, as well as the Waterfront Master Plan, Downtown Waterfront Strategic Plan, Measures A-24 and D, and State Tidelands Grant conditions. The Study Area boundary and applicable land use plan areas are illustrated in Figure 9.

The least constrained concept designs include alterations and new facilities at the North T-Pier within Morro Bay harbor. The North T-Pier has a land use designation of commercial/Recreational Fishing and zoning designation of Commercial Fishing. Measures A-24 and D apply to the North T-Pier. The following land use designations apply to the Intermediate Staging Zone locations included in the least constrained concept designs:

- Option 4A: Intermediate Staging Zone is located on parcel with a land use designation of Commercial/Recreational Fishing and zoning designation of Commercial Fishing. Measures A-24 and D apply to this site.
- Option 4B: Based on the City's land use and zoning GIS maps and concept design figures, the Intermediate Staging Zone appears to be located within City property (a parking area) within the public right-of-way (no zoning or land use designation is established for this location). Measure A-24 and Measure D do not apply to this site.
- Split Location Variant A: Intermediate Staging Zone is located on parcel with a land use designation of Public/Institutional and zoning designation of Public Facility. Measures A-24 and D do not apply to this site.
- Split Location Variant B: Intermediate Staging Zone is located on parcel with a land use designation of Commercial/Recreational Fishing and zoning designation of Commercial Fishing. Measures A-24 and D apply to this site.
- Split Location Variant C: Intermediate Staging Zone is located on parcel with land use and zoning designations of Visitor Serving Commercial. Measure A-24 applies to this site, but Measure D does not apply.

Land use designations within the City of Morro Bay city limits (Study Area) are illustrated in Figure 10.

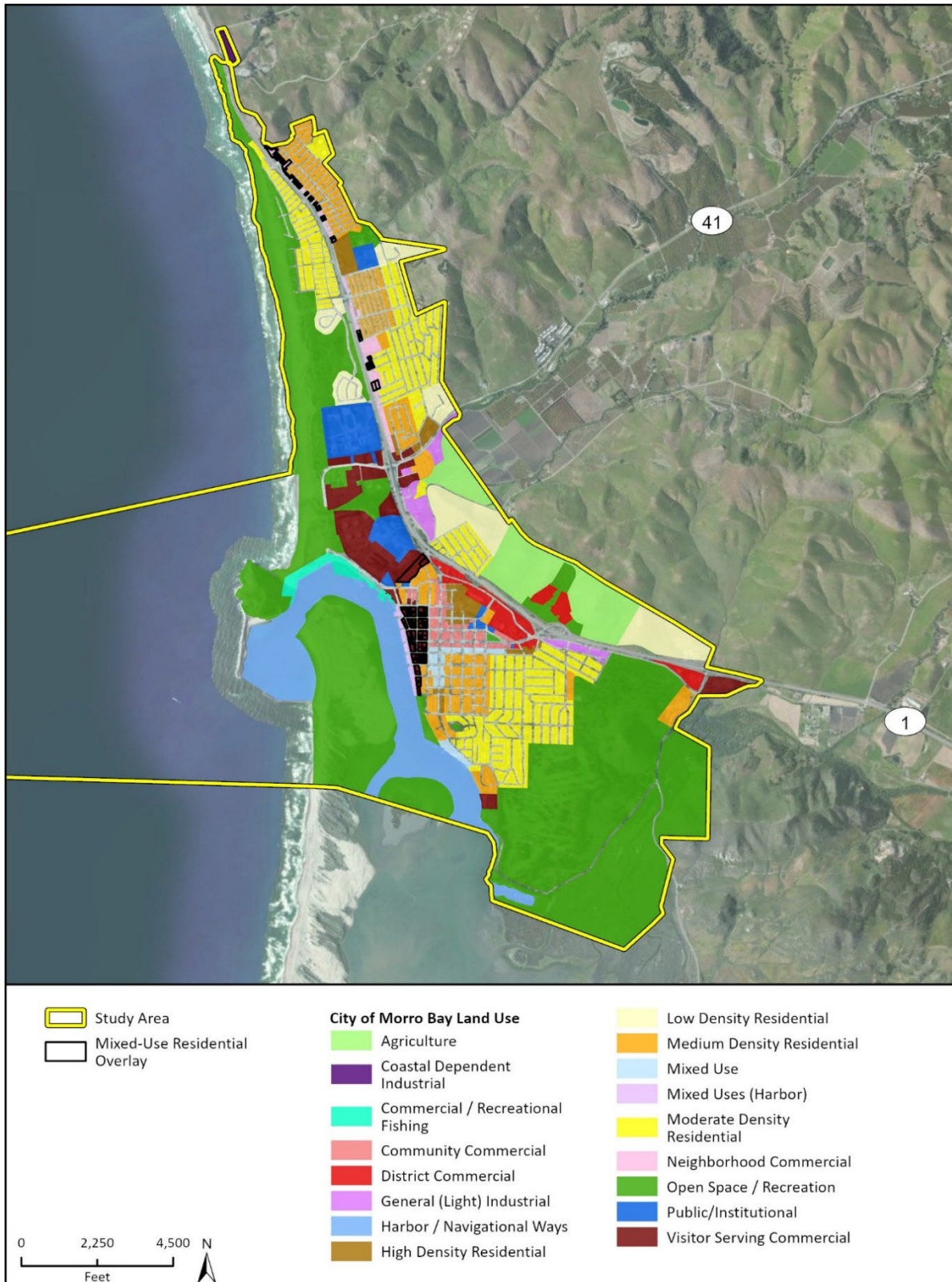
Figure 8 Land Use Plan Boundaries



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 Additional data provided by City of Morro Bay, 2025.

23-14713 EPS_Morro Bay
 Fig X Land Use Plan Boundaries

Figure 9 Land Use Designations



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Land use data provided by City of Morro Bay, 2025.

23-14713 EPS_Morro Bay
Fig X.Study Area and Land Use

3.2 Regulatory Setting

The OSW O&M facility concept designs evaluated in this report are located at least in part in City of Morro Bay public trust tidelands and submerged lands administered by CSLC and granted to San Luis Obispo County, which later transferred the Grant to the City of Morro Bay (Chapter 1076, Statutes of 1947). These public trust lands are required to be managed in the public's interest for the promotion and accommodation of commerce and commercial as well as recreational navigation by air and by water. Additional trust purposes include recreational use, a public park, parking, highway, playground, and business incidental to these uses. Each concept design involves complex environmental review and permitting processes that require coordinated authorizations and concurrence from federal, State, and local agencies due to the multi-jurisdictional scope and overlapping priorities and policies.

Given the above, each of the concept designs would be subject to CCC and CSLC concurrence and City of Morro Bay regulations and policies. Any future proposals for OSW O&M development would also be subject to the California Environmental Quality Act (CEQA), with potential requirements for the National Environmental Policy Act (NEPA) depending on funding sources and agency permit requirements. The various federal, State, and local regulations applicable to the Study Area are described in the following subsections.

3.2.1 Federal and State Regulations

National Environmental Policy Act

NEPA was signed into law in 1970. NEPA requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions. The range of actions covered by NEPA is broad and includes:

- Making decisions on permit applications,
- Adopting federal land management actions, and
- Constructing highways and other publicly-owned facilities.

Using the NEPA process, federal agencies must evaluate the environmental and related social and economic effects of their proposed actions. Agencies also provide opportunities for public review and comment on those evaluations.

40 Code of Federal Regulations (CFR) Parts 1500-1508 contain regulations guiding the implementation of NEPA. The regulations address the procedural provisions of NEPA and the administration of the NEPA process, including the preparation of environmental impact statements. In addition to these NEPA regulations, many federal agencies have also developed their own NEPA procedures that supplement the regulations contained in 40 CFR Parts 1500-1508. These NEPA procedures vary from agency to agency since they are tailored for the specific mission and activities of the agency (United States Environmental Protection Agency [USEPA] 2025a). It is anticipated that a joint CEQA/NEPA document or similar would be prepared, with coordination occurring between the NEPA responsible entity and CEQA lead agency, to streamline the OSW O&M facility environmental review process.

California Environmental Quality Act

CEQA was signed into law in 1970. Similar to NEPA, CEQA requires State and local government agencies to inform decision makers and the public about the potential environmental impacts of proposed projects, and to reduce those environmental impacts to the extent feasible. CEQA applies to discretionary actions undertaken, funded, or requiring a permit by a State or local public agency.

The laws and rules governing the CEQA process are contained in the CEQA statute (Public Resources Code Section 21000 and following), the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 and following), published court decisions interpreting CEQA, and locally adopted CEQA procedures (California Governor’s Office of Land Use and Climate Innovation [LCI] 2025).

California Coastal Act

The California Coastal Act (Coastal Act) was enacted in 1976. The Coastal Act guides how land along the coast of California is developed or protected from development. It emphasizes the importance of the public being able to access the coast, and the preservation of sensitive coastal and marine habitat and biodiversity. It dictates that development be clustered in areas to preserve open space, and that coastal agricultural lands be preserved. It prioritizes coastal recreation as well as commercial and industrial uses that need a waterfront location. The Coastal Act defines the area of the coast that comes under the jurisdiction of the California Coastal Commission (CCC), which is called the “coastal zone.” The Coastal Zone extends seaward to the State’s outer limit of jurisdiction (three miles), including offshore islands. The inland boundary varies according to land uses and habitat values. In general, it extends inland 1,000 yards from the mean high tide line of the sea, but is wider in areas with significant estuarine, habitat, and recreational values, and narrower in developed urban areas. Coastal Zone boundary maps are available on the CCC website (CCC 2017). The laws and regulations established by the Coastal Act are contained in Public Resources Code Section 230000 through 30900.

State Tidelands Grant

In 1947, the County of San Luis Obispo was granted sovereign tide and submerged lands in a portion of Morro Bay to hold in trust to operate a harbor and for facilities necessary or convenient to promote commerce and navigation (Chapter 1076, Statutes of 1947; CSLC 2025). In 1960, the grant was amended to provide for additional trust purposes including recreational use, and a public park, parking, highway, playground, and business incidental to these uses. The County transferred the title of the tide and submerged lands to the City of Morro Bay when the City was annexed in 1964. As the trustee and successor in interest to these tidelands, the City must comply with the County’s granting statute (CSLC 2025).

California Senate Bill 286

California Senate Bill (SB) 286, the Offshore Wind Expediting Act, was signed into law in October 2023 (Chapter 386, Stats. 2023). It streamlines offshore wind development by enabling a consolidated coastal development permit, allowing CCC to issue one unified coastal development permit for offshore wind infrastructure, including associated in-zone transmission facilities and support facilities, when coordinated with local agencies. Local agencies are invited to review and participate in the consolidated permitting process, but the CCC has ultimate approval rights. Pursuant to Public Resources Code Section 30601.3b, the standard of review for a consolidated coastal development permit application is the California Coastal Act. However, the applicable local

coastal program (LCP) is used as guidance. SB 286, however, does not override local land use or zoning designations, including permitting requirements and voter initiatives per the City of Morro Bay's Zoning Code.

SB 286 also designates the CSLC as the lead agency under CEQA, centralizing environmental review and promoting joint NEPA/CEQA documentation. On CSLC granted lands, such as those granted to the City of Morro Bay, the grantee may take the CEQA lead agency role. To protect ocean ecosystems and fishing communities, SB 286 creates a Fisheries Working Group charged with developing a statewide strategy to minimize impacts on fisheries, design mitigation protocols, and establish an Offshore Wind Energy Resiliency Fund to provide compensation and assistance to affected communities. Finally, it mandates a two-year stakeholder process to build long-term planning standards for permitting, environmental safeguards, and workforce development, helping California meet its offshore wind targets while considering coastal and community interests.

3.2.2 Local Regulations

City of Morro Bay General Plan

The Morro Bay General Plan, titled Plan Morro Bay, was adopted in 2021. Plan Morro Bay is the City of Morro Bay's General Plan and LCP Land Use Plan (LUP). It presents a community vision for Morro Bay through 2040 and contains 10 elements that identify particular resources or issues within the City and provide guidance for future planning decisions. Elements that are particularly relevant to the land use constraints for the potential concept being considered in this report include the Land Use Element, Conservation Element, and Open Space Element, described further below (Morro Bay 2021).

Land Use Element

The Land Use Element outlines a framework for land uses and infrastructure are organized within the City. The Land Use Element also establishes standards for building density and intensity. Additionally, this element addresses development within the coastal zone by identifying and protecting coastal-dependent and coastal-related uses, recreation and visitor-serving uses, energy and industrial development, and archaeological and cultural resources. The Land Use Element contains information, goals, and policies that guide the land use decisions for existing and future development within the City and its sphere of influence.

Conservation Element

The Conservation Element identifies and discusses resources including water, forests, soils, harbors, fisheries, wildlife, minerals, and energy. The Conservation Element also discusses greenhouse gas emissions and air quality impacts, and outlines a strategy to work in coordination with countywide agencies responsible for managing conservation efforts. The Conservation Element seeks to balance the City's development plans with conservation requirements and priorities. It also addresses climate change and emphasizes policies that will avoid problems, mitigate anticipated impacts when possible, and adapt to changes when mitigation is not possible. Goals established by the Conservation Element include preservation of sensitive habitats, promotion of resource conservation, and decreased emissions and waste.

Open Space Element

The Open Space Element establishes goals and policies to protect and conserve Morro Bay’s open space resources and addresses opportunities to expand the open space system by assessing park and trail facilities, coastal facilities, and recreation programs. The Open Space Element protects open space for the preservation of natural resources, managed resource production, outdoor recreation, and public health and safety. The Open Space Element also includes goals and policies consistent with the requirements of the Coastal Act related to coastal recreation and coastal access.

Downtown Waterfront Strategic Plan

The Downtown Waterfront Strategic Plan was adopted in 2018. It establishes a vision for revitalizing Morro Bay’s Embarcadero and downtown waterfront, emphasizing climate resilience and sea level rise adaptation, protection of environmentally sensitive habitats, improved public access, and support for visitor-serving commercial uses. The plan designates former infrastructure sites, including a decommissioned power plant and wastewater treatment facility, for master planning processes and mixed uses, with zoning aligned to balance public access, commercial and residential uses, and ecological safeguards—consistent with Coastal Commission priorities (Morro Bay 2018).

Waterfront Master Plan

The Waterfront Master Plan was adopted in 1996. The Waterfront Master Plan is a policy-level blueprint guiding land use, circulation, infrastructure, and design along Morro Bay’s waterfront, from Tidelands Park and the Embarcadero south to Morro Rock, laying out background context, historic character, public-access improvements, and conceptual frameworks with a traditional “fishing village” aesthetic. It includes development guidelines on building scale, architectural style, and visitor-serving density, along with implementation strategies and future action steps. The plan also addresses vehicular and pedestrian circulation, public access points, and parking configurations (Morro Bay 1996a). With a grant from the California Coastal Commission, the City is currently updating its Waterfront Master Plan to reinforce the waterfront’s existing zoning and General Plan designations and to further define its vision for transitioning former industrial and utility sites into visitor serving, recreational, cultural, and commercial fishing uses.

Measure A-24

Measure A-24 was a voter-approved ballot initiative in Morro Bay (November 5, 2024) that amended the City’s General Plan to freeze the land use designation of “Visitor-Serving Commercial” or “Commercial/Recreational Fishing” on approximately 103 acres of the city near the waterfront, including the former Morro Bay Power Plant site (Vistra property), parcels along both sides of Embarcadero Road, and near Morro Rock and Coleman Drive (refer to Figure 9 for the boundaries within which Measure A-24 applies). Under this measure, any future changes to the land use designations in this area require approval by a majority vote of city residents (Morro Bay 2024).

Measure D

Measure D was a citizen-initiated local ordinance approved by Morro Bay voters in 1981 to protect the working waterfront character north of Beach Street. It reserves that portion of the harbor exclusively for uses “primarily for the purpose of serving or facilitating licensed commercial fishing activities or noncommercial recreational fishing activities, or clearly incidental thereto.” The measure effectively bans new restaurants, gift shops, tour boats, hotels, or other visitor-serving developments within that designated area, preserving berthing and lease sites for commercial

fishing and related support functions unless those uses had been in place prior to Measure D. It can only be amended or repealed via another voter-approved measure (Historical Society of Morro Bay N.d.). Any future change to the land use designation in this area requires approval by a majority vote of city residents.

Morro Bay Zoning Code

Title 17 of the Morro Bay Municipal Code (MBMC) establishes the City's Zoning Code. The zoning code was comprehensively rewritten and adopted in November 2022 and certified by CCC in March 2024 as part of the Plan Morro Bay General Plan and LCP implementation. It establishes the zoning districts, allowable land uses, development standards, overlay zones (including environmentally sensitive habitat areas and coastal overlay zones), and design guidelines for the entire city. It also defines site regulations, such as parking, signage, setbacks, and nonconforming uses, along with administrative processes for permits, appeals, and enforcement, all aligned with State coastal planning requirements and local design objectives (Morro Bay 2025).

4 Biological Resources Setting

4.1 Regulatory Overview

Regulated or sensitive biological resources studied and analyzed herein include special status plant and animal species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, and locally protected resources, such as native oak trees and environmentally sensitive habitat areas (ESHAs). Regulatory authority over sensitive biological resources is shared by federal, State, and local authorities. Primary authority for regulation of general biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, the City of Morro Bay).

4.1.1 Definition of Special Status Species

For the purposes of this report, special status species include:

- Species listed as threatened or endangered under the Federal Endangered Species Act (FESA); species that are under review (i.e., those that are candidates or proposed for listing) may be included if there is a reasonable expectation of listing within the life of the project.
- Species listed as candidate, threatened or endangered under the California Endangered Species Act (CESA).
- Plant species listed as rare under the Native Plant Protection Act (NPPA; i.e., California Fish and Game Code [CFGF] Section 1900 et seq.).
- Species designated as Fully Protected, Species of Special Concern, or Watch List by the California Department of Fish and Wildlife (CDFW).
- Species designated as California Rare Plant Rank (CRPR) 1 or 2 by the California Native Plant Society (CNPS).
- Species managed and regulated under the Marine Mammal Protection Act (MMPA).
- Designated as a species of concern by the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) or NOAA Fisheries as Species of Concern.
- Species designated as locally important by the lead local agency and/or otherwise protected through ordinance or local policy.

4.1.2 Environmental Statutes

For the purpose of this report, potential impacts to biological resources were analyzed based on the following statutes:

- CEQA
- NEPA
- FESA
- CESA
- NPPA
- Federal Clean Water Act (CWA)
- CFGC

- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act
- California Coastal Act
- MMPA
- Magnuson-Steven Fishery Conservation and Management Act
- Rivers and Harbors Act of 1899
- Coastal Zone Management Act
- National Invasive Species Act
- Marine Life Protection Act
- Marine Life Management Act
- Marine Invasive Species Act
- Morro Bay General Plan
- Morro Bay Local Coastal Program

4.2 Literature and Database Review

Rincon conducted a literature review to assess the potential presence of special-status biological resources, including habitat for plant and wildlife species, sensitive plant communities, ESHAs, and suitable habitat for nesting birds, in the broader Study Area and identified APE for the highest ranking concept designs. The review included an evaluation of current and historical aerial photographs of the APE (Google Earth 2025), regional and site-specific topographic maps, and climatic data (Western Regional Climate Center 2025).

Queries of the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation system (IPaC; USFWS 2025a), CDFW California Natural Diversity Database (CNDDDB; CDFW 2025a), and CNPS Rare Plant Inventory (2025) were conducted to obtain comprehensive information regarding State and federally listed species, and other special-status species, considered to have potential to occur within six USGS quadrangles, including the *Morro Bay North* and *Morro Bay South, California* USGS 7.5-minute topographic quadrangles and the surrounding four quadrangles¹ (*Atascadero, San Luis Obispo, Pismo Beach, and Port San Luis*). The results of database queries and lists of special-status species were reviewed by Rincon's regional biological experts for accuracy and completeness. The final list of special-status biological resources (species and sensitive natural communities) was evaluated based on documented occurrences within a six-quadrangle radius search area and biologists' expert opinions on species known to occur in the region. Plants with CNPS CRPR 3 and 4 were not considered in the evaluation.

The following resources were reviewed for additional information on existing conditions relating to biological resources within the Study Area:

- Critical Habitat Portal (USFWS 2025b)
- Critical Habitat Mapper (NMFS 2025)
- Biogeographic Information and Observation System (CDFW 2025b)

¹ A six-USGS quadrangle search was conducted instead of a standard nine-quadrangle search due to the coastal location of the project area.

- National Wetlands Inventory (NWI; USFWS 2025c)
- National Hydrography Dataset (NHD; USGS 2025)

The potential for wildlife movement corridors was evaluated based on the California Essential Habitat Connectivity Project commissioned by the California Department of Transportation and CDFW (Spencer et al. 2010).

4.3 Existing Conditions

This section provides an overview of existing conditions within the Study Area, including physical characteristics, soil types, vegetation communities, marine habitat types, and biological resources, including special status plant and wildlife species.

4.3.1 Physical Characteristics

Morro Bay is situated on California's central coast and is defined by a distinctive coastal topography featuring the iconic Morro Rock, a volcanic plug, and an expansive estuary bordered by dynamic sand dunes and a sand spit. This semi-enclosed embayment, part of Estero Bay, is characterized by its protected inner harbor, extensive mudflats, and critical eelgrass beds, which serve as vital habitats for a rich diversity of marine life, including southern sea otter (*Enhydra lutris nereis*). Elevations within the immediate port area range from 0 meters at sea level to the 177 meters (581 feet) of Morro Rock, with higher coastal hills forming part of the Santa Lucia Range extending further inland. The region experiences a Mediterranean climate, marked by mild, wet winters and dry summers, with a consistent marine layer often bringing morning fog. Average annual temperatures typically range from 13 degrees Celsius (°C) to 20°C (55 degrees Fahrenheit [°F] to 68°F), influenced by prevailing northwesterly winds and seasonal upwelling events that enrich the marine environment with cool, nutrient-laden waters, supporting a productive ecosystem.

4.3.2 Watershed and Drainages

The Study Area is located within and adjacent to Morro Bay and the Pacific Ocean. The Study Area occurs within the Morro Bay Watershed (Hydrologic Unit Code [HUC]: 180600060503), Islay Creek – Frontal Pacific Ocean Watershed (HUC: 180600060504), Chorro Creek Watershed (HUC: 180600060502), Morro Creek Watershed (HUC: 180600060412), and Willow Creek – Frontal Pacific Ocean Watershed (HUC: 180600060413) (USEPA 2025b). The NWI maps Estuarine Marine and Deepwater, Estuarine and Marine Wetland, Freshwater Forested/Shrub Wetland, and Riverine habitats within the APE and adjacent Study Area (USFWS 2025). The NHD also maps four drainages, including Morro Creek, Little Morro Creek, and two unnamed drainages, within the Study Area adjacent to the APE (USGS 2025). The Study Area is also located within the Morro Bay State Marine Recreational Management Area (SMRMA) and Morro Bay State Marine Reserve (SMR; CDFW 2025b). Figure 11 depicts watersheds and drainages that overlap with the APE and adjacent Study Area.

Figure 10 Watershed and Drainages within the APE and adjacent Study Area



Imagery provided by Esri and its licensors © 2026.
 Hydrology data provided by USGS and USFWS, 2025.

23-14713 BIO_Morro Bay
 Fig X NHD_NWI

4.3.3 Vegetation Communities and Land Cover

Ten vegetation communities and five land cover types were identified within the APE (Table 1). Descriptions of the vegetation communities and land cover types found within the APE are provided below and locations of vegetation communities and land cover types within the APE are depicted in Figure 12. Vegetation community and land cover data and descriptions were retrieved from the Pacific Veg Map, which includes data from the Coastal San Luis Resource Conservation District and CDFW (Pacific Veg Map 2025).

Table 1 Vegetation Communities and Land Cover Types in the APE

Vegetation Community/Land Cover Type	Acreage
Barren and Sparsely Vegetated	14.38
Developed	15.19
Eucalyptus	1.35
Herbaceous	0.22
Non-native Herbaceous	0.31
Pine/Cypress	0.10
Shrub	2.77
Water	183.61

Figure 11 Vegetation Communities and Land Cover Types within the APE and adjacent Study Area



Imagery provided by Esri and its licensors © 2026.
 Vegetation data provided by Coastal San Luis RCD & CDFW 2024 via Pacific Veg Map.

23-14713 BIO_Morro Bay
 Fig X Vegetation Communities

Barren and Sparsely Vegetated

Barren and Sparsely Vegetated land cover consists of areas that are generally devoid of vegetation. This land cover type includes areas comprised of 10 percent or less total cover of tree, shrub, and/or herbaceous species. This land cover type can be found across a variety of different habitats and its structure and composition may vary greatly depending on region and surrounding environment. Within the APE, this land cover type is mostly concentrated along coastal dunes, bluffs, and beaches in the western portion of the APE, occupying approximately 14.38 acres.

Developed

Developed land cover consists of areas that have been developed or physically modified to the extent that they no longer contain native soil and habitat conditions and no longer support most vegetation. This land cover type includes developed areas greater than 0.2 acre and includes buildings, paved areas, and landscaped areas. Within the APE, this land cover type includes residential, commercial, and industrial development, occupying approximately 15.19 acres.

Eucalyptus

Eucalyptus is a non-native vegetation community dominated by eucalyptus (*Eucalyptus* spp.) trees. This vegetation community includes areas comprised of at least 10 percent absolute cover of tree species, with eucalyptus occupying at least 50 percent relative cover in the tree layer. This vegetation community occurs in patches throughout the APE, occupying approximately 1.35 acres.

Herbaceous

Herbaceous is an upland vegetation community comprised of native and non-native herbaceous species. This vegetation community includes areas comprised of at least 10 percent absolute cover of herbaceous species, with tree and shrub species occupying less than 10 percent absolute cover. Common upland herbaceous species in the region include native purple needlegrass (*Stipa pulchra*) and California poppy (*Eschscholzia californica*), as well as non-native wild oat (*Avena* spp.) and brome (*Bromus* spp.). This vegetation community occurs in patches throughout the APE, occupying approximately 0.22 acres.

Non-native Herbaceous

Non-native Herbaceous is a non-native vegetation community dominated by non-native herbaceous species. This vegetation community includes areas comprised of at least 10 percent absolute cover of herbaceous species, with non-native herbaceous species as the dominant species within the herbaceous layer. This vegetation community contains less than 10 percent absolute cover of tree and shrub species. Common non-native herbaceous species in the region include iceplant (*Carpobrotus* spp.), Russian thistle (*Salsola tragus*), star thistle (*Centaurea* spp.), black mustard (*Brassica nigra*), poison hemlock (*Conium maculatum*), and sweet fennel (*Foeniculum vulgare*). This vegetation community occurs in patches throughout the APE, occupying approximately 0.31 acres.

Pine/Cypress

Pine/Cypress is a native vegetation community dominated by native pine (*Pinus* spp.) and cypress (*Hesperocyparis* spp.) species. This vegetation community includes areas comprised of at least 10 percent absolute cover of tree species, with native pine and cypress species occupying at least 60 percent relative cover. Common pine and cypress species within the region include California

foothill pine (*Pinus sabiniana*), knobcone pine (*Pinus attenuata*), Monterey pine (*Pinus radiata*), and Monterey cypress (*Hesperocyparis macrocarpa*). This vegetation community occurs in patches throughout the APE, occupying approximately 0.10 acres.

Shrub

Shrub is a native vegetation community dominated by native upland shrub species. This vegetation community includes at least 10 percent absolute cover of upland shrub species, with no greater than 10 percent cover of tree species. Common shrub species in the region include coyote brush (*Baccharis pilularis*), California sagebrush (*Artemisia californica*), sticky monkeyflower (*Diplacus aurentiacus*), and buckwheat (*Eriogonum* spp.). This vegetation community occurs in patches throughout the APE, occupying approximately 2.77 acres.

Water

Water consists of areas inundated with salt or fresh water, including ponds, bays, and oceans. Within the Study Area, this land cover type is largely associated with Morro Bay, occupying approximately 183.61 acres.

4.3.4 Marine Habitat Types

Portions of the Study Area and the majority of the APE provide habitat for a variety of marine species. Marine habitat types within the APE include Open Water with Sandy Bottom, Rip Rap/Rocky Reef and Dock/Pier Structures (Figure 13). These marine habitat types were identified using Google Earth and the associated characteristics of each habitat. Each of these habitat types is described in detail below.

Figure 12 Marine Habitat Types within the APE



Imagery provided by Esri and its licensors © 2026.

23-14713 BIO_Morro Bay
Fig X Marine Habitat Types

Open Water with Sandy Bottom

Approximately 182 acres of marine habitat within the APE consists of open water with an unconsolidated sandy or silty bottom. Benthic organisms are associated with soft sediment habitat, primarily invertebrate species. Benthic organisms are an important component of the food web and are indicators of environmental quality. Benthic areas within this habitat type may be occupied by a variety of regionally occurring invertebrates, such as polychaete worms (including *Mediomastus californiensis* and *Polydora kempii*), shrimp (*Neomysis rayii*, *Bathyleberis* spp., and *Euphilomedes carcharodonta*), crabs (including *Hemigrapsus nudus*), bivalves (including *Macoma secta* and *Transennella tantilla*), seastars (including *Amphiodia* spp.), gammarid amphipods (including *Aoroides columbiae* and *Corophium acherusicum*), and other sessile and suspension feeding organisms.

The water column within the Study Area can provide foraging habitat for juvenile and adult fish species, such as California halibut (*Paralichthys californicus*), starry flounder (*Platichthys stellatus*), barred surfperch (*Amphistichus argenteus*), and rockfish (*Sebastes* spp.). Schools of jacksmelt (*Atherinops affinis*), Pacific sardine (*Sardinops sagax caerulea*), and Pacific mackerel (*Scomber japonicus*) are also known to transit and feed within the Study Area. A variety of seabirds also utilize this habitat, including California brown pelican (*Pelecanus occidentalis californicus*), cormorants (*Phalacrocorax* spp.), and gulls (*Larus* spp.). Multiple species of marine mammals are known to occur in open water within the Study Area, including southern sea otter, harbor seal (*Phoca vitulina*), California sea lion (*Zalophus californianus*), and common bottlenose dolphin (*Tursiops truncatus*).

Eelgrass (*Zostera marina*) beds have been extensively documented throughout the Study Area. Eelgrass is a marine flowering plant that anchors into the bay floor, forming dense underwater meadows across both subtidal and intertidal zones. These meadows are vital for ecosystem functions such as providing shelter for juvenile fish and invertebrates, spawning surfaces for species like Pacific herring, and foraging grounds for shorebirds and diving birds. The eelgrass coverage peaked in 2023 at 750 acres, driven by natural growth and active restoration projects within Morro Bay (Morro Bay National Estuary Program 2025).

Dock/Pier Structures

There are several public and private docks, wharfs and piers, as well as the North T-Pier and South T-Pier, within the APE, occupying approximately 7.36 acres of marine habitat. Pier piles are driven into the sandy bottom and provide hard substrate for a variety of marine species, such as algae, and sessile and mobile marine invertebrate species. This marine habitat is typically occupied by various invertebrate species including California mussel, anemones (*Anthopleura* spp.), barnacles (*Balanus* spp.), and stalked tunicates (*Styela montereyensis*).

A variety of seabirds and shorebirds use the dock structures for perching and nesting including cormorants and gulls. There is also potential for passerine bird species, including pigeon guillemot (*Cepphus columba*) and black phoebe (*Sayornis nigricans*) to nest beneath the pier structure.

Rip Rap/Rocky Reef Habitat

Rip rap/rocky reef habitat covers approximately 11.92 acres of the APE and includes both intertidal and subtidal rocky habitat that transitions from the high splash zone to shallow rocky reef habitat. Rip rap serves as important intertidal habitat that forms distinct assemblages of invertebrates and algae based on sea level elevation, wave exposure and substrate type. The upper intertidal rip rap

supports assemblages of barnacles and motile mollusks (e.g., limpets [*Patella* spp.], snails [*Littorina* spp.]). The middle and lower intertidal zones support dense assemblages of mussels (*Mytilus californianus*), gooseneck barnacles (*Pollicipes pollicipes*), striped shore crab (*Pachygrapsus crassipes*) and feather boa kelp (*Egregia menziesii*). As the rip rap extends into deeper depths the rip rap functions as rocky reef with subtidal invertebrate, macroalgae and fishes inhabiting or utilizing the hard substrate. In the APE submerged rip rap/rocky reef supports giant kelp (*Macrocystis pyrifera*) and in some cases bull kelp (*Nereocystis luetkeana*) along a thin margin adjacent to exposed rip rap and mostly along the northern extent of rip rap. Giant kelp forms dense surface canopies and is seasonally abundant and observed to be perennial in various protected areas along the northern extent of Morro Bay. Giant kelp habitat is a Habitat Area of Particular Concern (HAPC) and supports a diversity of fishes and invertebrates. The southern sea otter uses the giant kelp habitat in Morro Bay and extensively for foraging, rafting, and social interaction.

4.4 Sensitive Biological Resources

Local, State, and federal agencies regulate special status species and other sensitive biological resources and require an assessment of their presence or potential presence to be conducted on-site prior to the approval of proposed development on a property. This section discusses sensitive biological resources observed in the Study Area and evaluates the potential for the areas to support additional sensitive biological resources. Assessments for the potential occurrence of special status species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDDB, species occurrence records from other sites in the vicinity of the Study Area and previous reports for the Study Area.

4.4.1 Potential Special-Status Species

The literature review identified 135 special status plant and wildlife species that are known or have been known to occur in the regional vicinity of the Study Area. Of these 135 species, 98 species (46 plants and 52 animals) were evaluated as being present or having some potential to occur within the Study Area. Special-status species evaluated as being present or having some potential to occur within the Study Area are summarized in Table 2, and a complete list of special-status species evaluated for the project is presented in Appendix D. The intent in assessing the broader Study Area and not just the APE is to provide a comprehensive basis for future evaluation depending on the selected project site(s).

Table 2 Special-Status Species with Potential to Occur within the Study Area

Species Name	Status
Plants	
Hoover's bent grass (<i>Agrostis hooveri</i>)	CRPR 1B.2
Morro manzanita (<i>Arctostaphylos morroensis</i>)	FT, CRPR 1B.1
Sand mesa manzanita (<i>Arctostaphylos rudis</i>)	CRPR 1B.1
Miles' milk-vetch (<i>Astragalus didymocarpus</i> var. <i>milesianus</i>)	CRPR 1B.2
Coulter's saltbush (<i>Atriplex coulteri</i>)	CRPR 1B.2
San Luis Obispo sedge (<i>Carex obispoensis</i>)	CRPR 1B.2
San Luis Obispo owl's-clover (<i>Castilleja densiflora</i> var. <i>obispoensis</i>)	CRPR 1B.2
Congdon's tarplant (<i>Centromadia parryi</i> ssp. <i>congdonii</i>)	CRPR 1B.1
Coastal goosefoot (<i>Chenopodium littoreum</i>)	CRPR 1B.2
Point Reyes salty bird's-beak (<i>Chloropyron maritimum</i> ssp. <i>palustre</i>)	CRPR 1B.2
Pismo clarkia (<i>Clarkia speciosa</i> ssp. <i>immaculata</i>)	FE, SR, CRPR 1B.1
Salt marsh bird's beak (<i>Cordylanthus maritimum</i> ssp. <i>maritimum</i>)	FE, SE, CRPR 1B.2
Dune larkspur (<i>Delphinium parryi</i> ssp. <i>blochmaniae</i>)	CRPR 1B.2
Beach spectaclepod (<i>Dithyrea maritima</i>)	ST, CRPR 1B.1
Betty's dudleya (<i>Dudleya abramsii</i> ssp. <i>bettinae</i>)	CRPR 1B.2
Blochman's dudleya (<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>)	CRPR 1B.1
Blochman's leafy daisy (<i>Erigeron blochmaniae</i>)	CRPR 1B.2
Hoover's button-celery (<i>Eryngium aristulatum</i> var. <i>hooveri</i>)	CRPR 1B.1
San Joaquin spearscale (<i>Etriplex joaquinana</i>)	CRPR 1B.2
Kellogg's horkelia (<i>Horkelia cuneata</i> var. <i>sericea</i>)	CRPR 1B.1
Perennial goldfields (<i>Lasthenia californica</i> ssp. <i>macrantha</i>)	CRPR 1B.2
Coulter's goldfields (<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>)	CRPR 1B.1
Blushing layia (<i>Layia erubescens</i>)	CRPR 1B.2
Jones' layia (<i>Layia jonesii</i>)	CRPR 1B.2
Southern curly-leaved monardella (<i>Monardella sinuata</i> ssp. <i>sinuata</i>)	CRPR 1B.2
Aparejo grass (<i>Muhlenbergia utilis</i>)	CRPR 2B.2
Coast woolly-heads (<i>Nemacaulis denudata</i> var. <i>denudata</i>)	CRPR 1B.2
Chaparral ragwort (<i>Senecio aphanactis</i>)	CRPR 1B.2
California seablite (<i>Suaeda californica</i>)	FE, CRPR 1B.1
Splitting yarn lichen (<i>Sulcaria isidiifera</i>)	CRPR 1B.1
Twisted horsehair lichen (<i>Sulcaria spiralifera</i>)	CRPR 1B.2
Blochman's leafy daisy (<i>Erigeron blochmaniae</i>)	CRPR 1B.2
Hoover's button-celery (<i>Eryngium aristulatum</i> var. <i>hooveri</i>)	CRPR 1B.1
San Joaquin spearscale (<i>Etriplex joaquinana</i>)	CRPR 1B.2
Kellogg's horkelia (<i>Horkelia cuneata</i> var. <i>sericea</i>)	CRPR 1B.1
Perennial goldfields (<i>Lasthenia californica</i> ssp. <i>macrantha</i>)	CRPR 1B.2
Coulter's goldfields (<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>)	CRPR 1B.1
Blushing layia (<i>Layia erubescens</i>)	CRPR 1B.2

Species Name	Status
Jones' layia (<i>Layia jonesii</i>)	CRPR 1B.2
Southern curly-leaved monardella (<i>Monardella sinuata</i> ssp. <i>sinuata</i>)	CRPR 1B.2
Aparejo grass (<i>Muhlenbergia utilis</i>)	CRPR 2B.2
Coast woolly-heads (<i>Nemacaulis denudata</i> var. <i>denudata</i>)	CRPR 1B.2
Chaparral ragwort (<i>Senecio aphanactis</i>)	CRPR 1B.2
California seablite (<i>Suaeda californica</i>)	FE, CRPR 1B.1
Splitting yarn lichen (<i>Sulcaria isidiifera</i>)	CRPR 1B.1
Twisted horsehair lichen (<i>Sulcaria spiralifera</i>)	CRPR 1B.2
Invertebrates	
Crotch's bumble bee (<i>Bombus crotchii</i>)	SCE
Western bumble bee (<i>Bombus occidentalis</i>)	SCE
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	FT
Monarch – California overwintering population (<i>Danaus plexippus plexippus</i> pop. 1)	FPT
Black abalone (<i>Haliotis cracherodii</i>)	FE
White abalone (<i>Haliotis sorenseni</i>)	FE
Morro shoulderband (<i>Helminthoglypta walkeriana</i>)	FT
Sunflower sea star (<i>Pycnopodia helianthoides</i>)	FPT
Fish	
Northern tidewater goby (<i>Eucyclogobius newberryi</i>)	FE, SSC
Garibaldi (<i>Hypsypops rubicundus</i>)	SP
Steelhead – south-central California coast DPS (<i>Oncorhynchus mykiss irideus</i> pop. 9)	FT, SSC
Giant sea bass (<i>Stereolepis gigas</i>)	FP
Amphibians	
California red-legged frog (<i>Rana draytonii</i>)	FT, SSC
Western spadefoot (<i>Spea hammondi</i>)	FPT, SSC
Coast Range newt (<i>Taricha torosa</i>)	SSC
Reptiles	
Southwestern pond turtle (<i>Actinemys pallida</i>)	FPT, SSC
Northern California legless lizard (<i>Anniella pulchra</i>)	SSC
Loggerhead sea turtle – North Pacific DPS (<i>Caretta caretta</i>)	FE
Green sea turtle (<i>Chelonia mydas</i>)	FT
Leatherback sea turtle (<i>Dermochelys coriacea</i>)	FE,
Olive Ridley sea turtle (<i>Lepidochelys olivacea</i>)	FT
Coast horned lizard (<i>Phrynosoma blainvillii</i>)	SSC
Birds	
Cooper's hawk (<i>Accipiter cooperii</i>)	WL
Tricolored blackbird (<i>Agelaius tricolor</i>)	ST, SSC
Burrowing owl (<i>Athene cunicularia</i>)	SCE, SSC
Western snowy plover (<i>Charadrius nivosus nivosus</i>)	FT, SSC
White-tailed kite (<i>Elanus leucurus</i>)	FP

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Species Name	Status
California horned lark (<i>Eremophila alpestris actia</i>)	WL
Loggerhead shrike (<i>Lanius ludovicianus</i>)	SSC
California black rail (<i>Laterallus jamicensis coturniculus</i>)	ST, FP
Osprey (<i>Pandion haliaetus</i>)	WL
Double-crested cormorant (<i>Phalacrocorax penicillatus</i>)	WL
Purple martin (<i>Progne subis</i>)	SSC
California Ridgway's rail (<i>Rallus obsoletus obsoletus</i>)	FE, SE, FP
California least tern (<i>Sternula antillarum browni</i>)	FE, SE, FP
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	FE, SE
Mammals	
Pallid bat (<i>Antrozous pallidus</i>)	SSC
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	SSC
Southern sea otter (<i>Enhydra lutris nereis</i>)	FT, FP
Gray whale (<i>Eschrichtius robustus</i>)	MMPA
Western mastiff bat (<i>Eumops perotis californicus</i>)	SSC
Pacific white-sided dolphin (<i>Lagenorhynchus obliquidens</i>)	MMPA
Humpback whale – Mexico DPS (<i>Megaptera novaeangliae</i>)	FT, SS, DEP, MMPA
Northern elephant seal (<i>Mirounga angustirostris</i>)	MMPA
San Diego desert woodrat (<i>Neotoma lepida intermedia</i>)	SSC
Harbor seal (<i>Phoca vitulina</i>)	MMPA
Harbor porpoise (<i>Phocoena phocoena</i>)	SS, MMPA
American badger (<i>Taxidea taxus</i>)	SSC
Common bottlenose dolphin (<i>Tursiops truncatus</i>)	MMPA
California sea lion (<i>Zalophus californianus</i>)	MMPA
CRPR – California Rare Plant Rank	SCE – State Candidate Endangered
DEP – Depleted under the MMPA	SE – State Endangered
FE – Federally Endangered	SP – State Protected
FP – CDFW Fully Protected	SR – State Rare
FPT – Federally Proposed Threatened	SS – Strategic Stock
FSC – Federal Species of Concern	SSC – CDFW Species of Special Concern
FT – Federally Threatened	ST – State Threatened
MMPA – Protected under Marine Mammal Protection Act	WL – CDFW Watch List

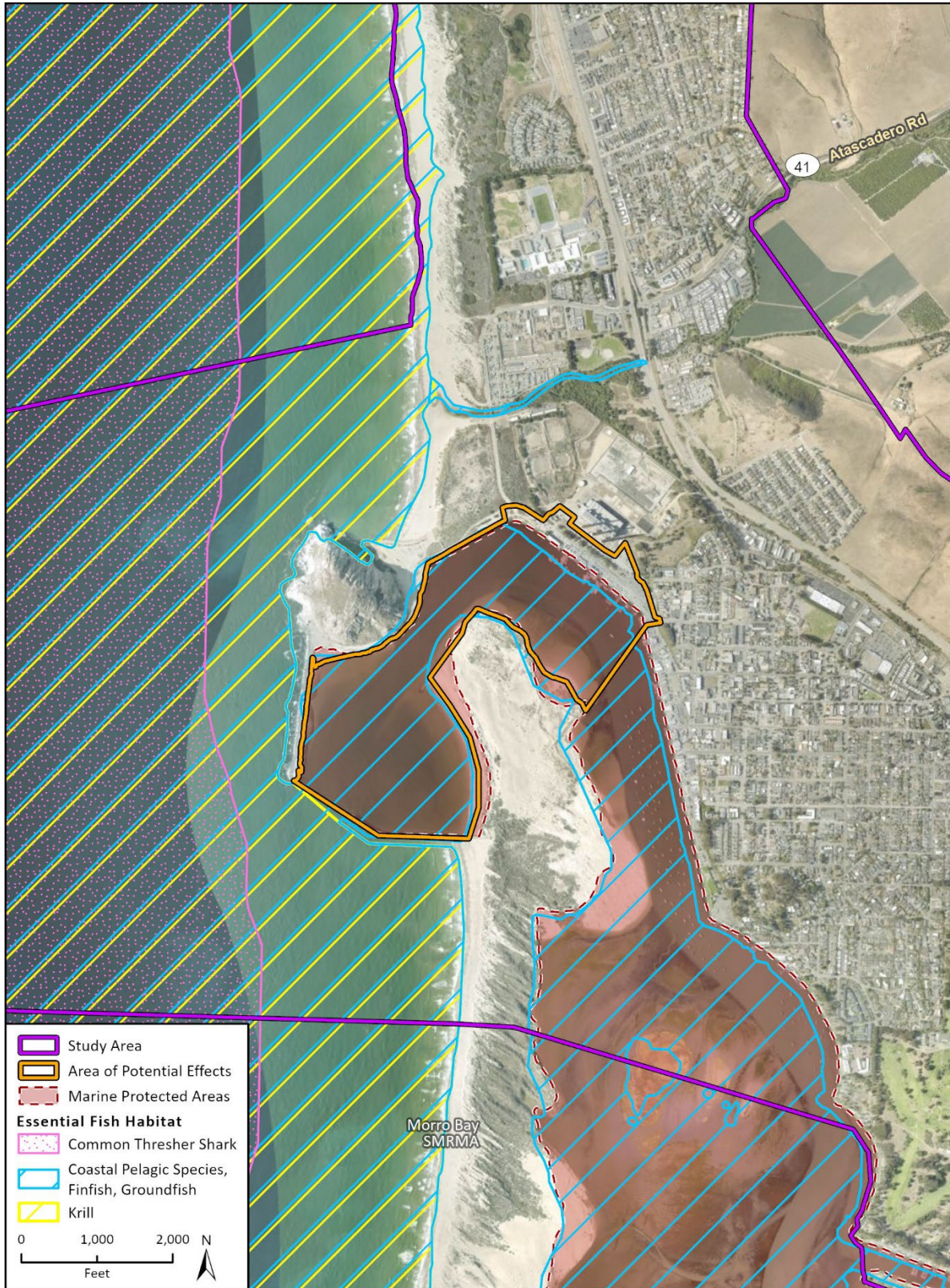
4.4.2 Essential Fish Habitat, Habitat Areas of Particular Concerns, Environmentally Sensitive Habitat Areas, Designated Critical Habitat, and Marine Protected Areas

Essential Fish Habitat (EFH) is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growing to maturity. Substrate includes the sediment, hard bottom, structures underlying the waters and the associated biological communities. EFH for common thresher shark, krill, coastal pelagic species, finfish, and groundfish is mapped within the APE and adjacent Study Area, as depicted in Figure 14.

HAPCs are mapped by NOAA Fisheries within EFH and includes estuary, eelgrass, canopy kelp, and rocky reefs. The entirety of Morro Bay within the Study Area is mapped as an estuary, while seagrass in the form of eelgrass beds is mapped in the western portion, and kelp canopy seasonal present in the northern portion of Morro Bay within the Study Area. When a proposed action may adversely affect EFH, such as a direct or indirect physical, chemical, or biological alteration to habitat, consultation with NOAA Fisheries is required.

There are a number of State Marine Protected Areas (MPAs) along the California coastline. State Marine Reserve (SMR) is an MPA designation that prohibits damage or take of all marine resources. A State Marine Recreational Management Area (SMRMA) is an MPA designation that allows recreational activities, with site-specific regulations specifying limitations for each SMRMA. The Morro Bay SMR includes approximately 0.88 square miles of estuarine and coastal marsh habitats within Morro Bay from Morro Bay State Park south to the unincorporated community of Los Osos. The Morro Bay SMRMA includes approximately 3.07 square miles of estuarine, eelgrass, and coastal marsh habitats throughout the rest of Morro Bay from Morro Rock south to Shark Inlet. The Morro Bay SMRMA overlaps with the APE and adjacent Study Area, while the Morro Bay SMR overlaps with the southeastern portion of the Study Area near Morro Bay State Park.

Figure 13 Essential Fish Habitat within the APE and adjacent Study Area



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 Additional data provided by NOAA and CDFW, 2024.

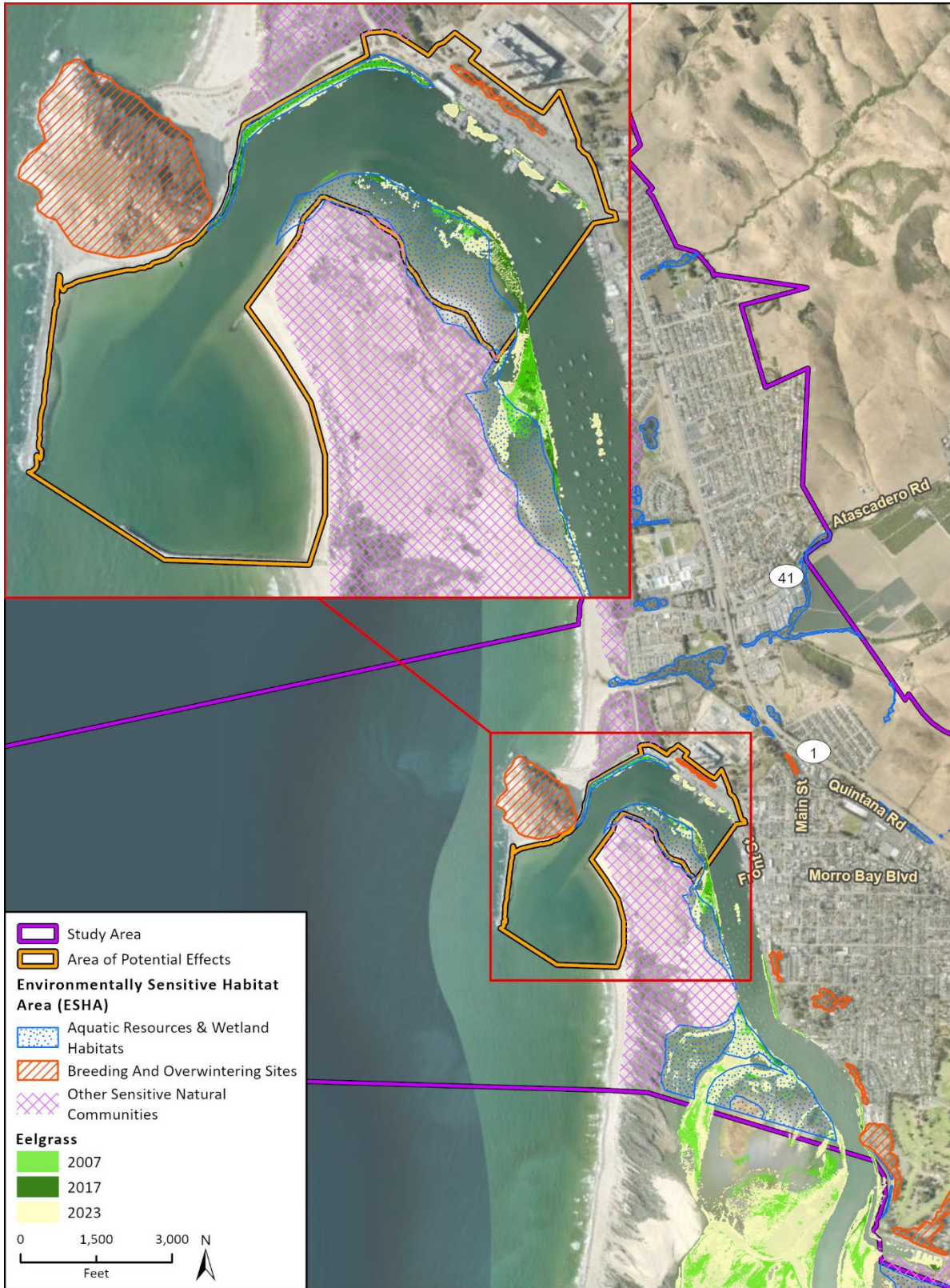
23-14713 BIO_Morro Bay
 Fig X EFH and MPA

The CCC defines ESHAs as “any area in which plant or animal life or their habitat are either rare or especially valuable because of their nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and development.” In areas where the CCC has certified a LCP, ESHA may be further defined by the local jurisdiction (e.g., rocky intertidal, beaches). For instance, the City of Morro Bay’s certified LCP defines ESHA as aquatic resources and wetland habitats, breeding and overwintering sites, and other sensitive natural communities, including foredune, backdune/dune scrub, coastal bluff, and coastal scrub habitats. Three types of ESHA as defined by the City of Morro Bay LCP in the form of aquatic resources and wetland habitats, breeding and overwintering sites, and other sensitive natural communities are mapped within the APE and adjacent Study Area (City of Morro Bay 2021). Additionally, the Study Area includes known nesting sites and coastal areas utilized by bird species including double-crested cormorant (*Phalacrocorax penicillatus*) and osprey (*Pandion haliaetus*), for foraging, nesting, and roosting; these areas are also considered ESHA as defined by the City of Morro Bay LCP. One known monarch – California overwintering population (*Danaus plexippus plexippus* pop. 1) overwintering site – Site 3076 – also overlaps with the northeastern portion of the Study Area within the eucalyptus grove near the intersection of Main Street and Surf Street (Xerces Society for Invertebrate Conservation [Xerces] 2025). Figure 15 depicts ESHA within the APE and adjacent Study Area.

NMFS-designated critical habitat for leatherback sea turtle (*Dermochelys coriacea*) is mapped within Morro Bay and marine portions of the APE and adjacent Study Area. Additionally, NMFS-designated critical habitat for steelhead (*Oncorhynchus mykiss irideus* pop. 9) is mapped within coastal streams throughout the Study Area, including Morro Creek and Little Morro Creek. USFWS-designated critical habitat for western snowy plover (*Charadrius nivosus nivosus*) overlaps with the APE and adjacent Study Area along the beaches north and south of Morro Rock. USFWS-designated critical habitat for monarch butterfly is mapped within several eucalyptus groves in the Study Area. USFWS-designated critical habitat for California red-legged frog (*Rana draytonii*) also overlaps with coastal ranges in the eastern portion of the Study Area. Additionally, USFWS-designated critical habitat for Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*), Morro shoulderband snail (*Helminthoglypta walkeriana*), and tidewater goby (*Eucyclogobius newberryi*) are mapped between 1 and 3 miles south of the Study Area. Figure 16 depicts NMFS- and USFWS-designated critical habitat mapped within and adjacent to the Study Area.

Direct and indirect impacts to these sensitive habitats or protected areas should be avoided or minimized, as feasible.

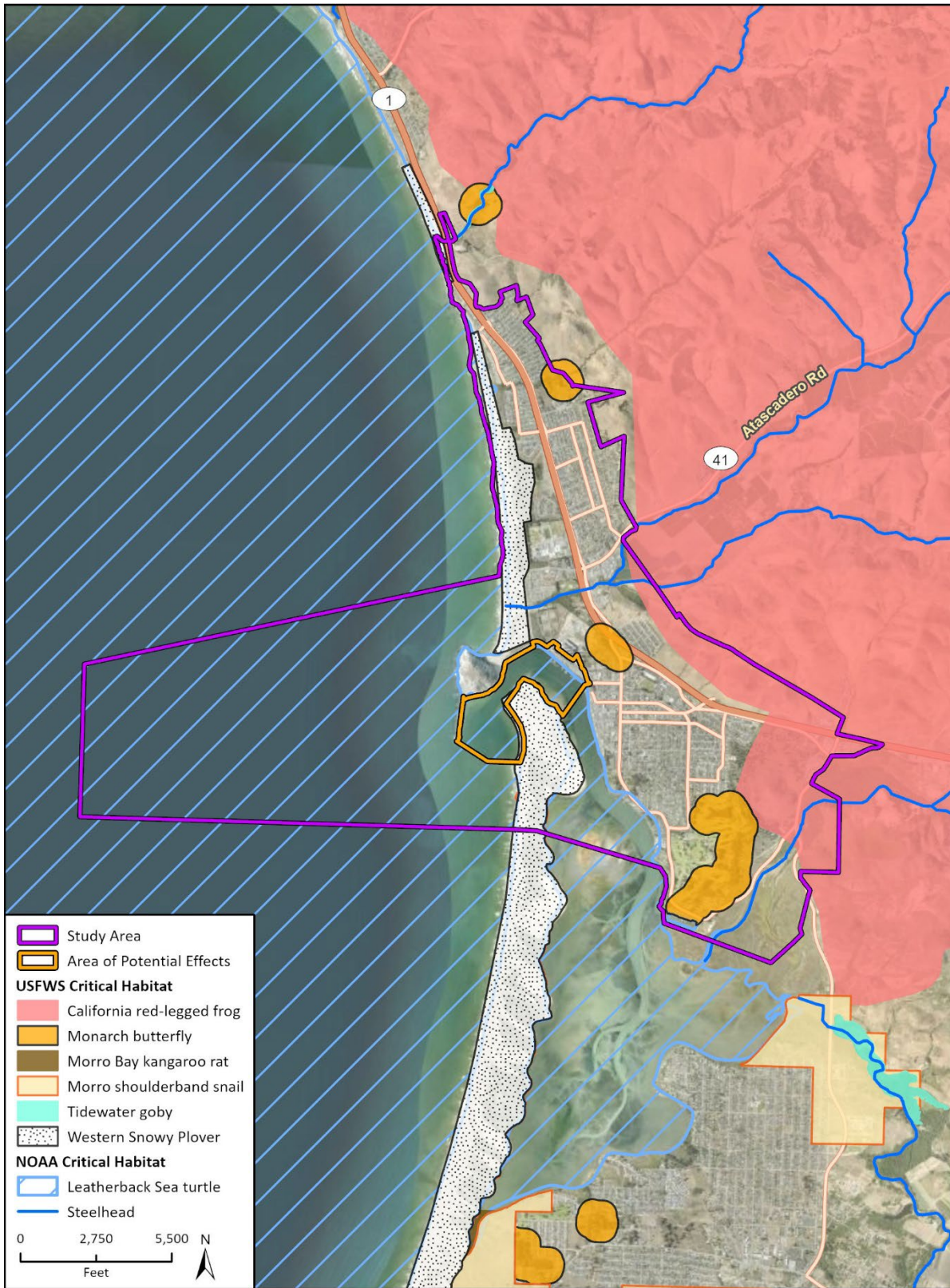
Figure 14 ESHA within the APE and adjacent Study Area



Imagery provided by Esri and its licensors © 2026.
 Habitat data provided by City of Morro Bay, 2017 and Morro Bay National Estuary Program, 2024.

23-14713 BIO_Morro Bay
 Fig X ESHA_Eelgrass

Figure 15 Critical Habitat within the APE and adjacent Study Area



Imagery provided by Esri and its licensors © 2026.
 Critical habitat data provided by USFWS and NOAA, 2025.

23-14713 BIO_Morro Bay
 Fig X Critical Habitat

4.5 Biological Resources Recommendations

Seasonal Restrictions

Migratory birds protected under the MBTA and nesting birds and raptors protected under CFGC Section 3503 have the potential to breed during the nesting season defined as February 1 to September 15. Construction activities should be restricted to the non-breeding season (September 16 to January 31) when feasible. If proposed and depending on the scope, dredging and pile driving may also be subject to seasonal restrictions to avoid special status fish and marine mammals (e.g., humpback whale) migration seasons.

Recommended Surveys and Studies

It is recommended to complete a biological resources assessment (BRA) and a USACE-compliant BA of the Study Area including a marine field reconnaissance survey (marine survey) to assess the intertidal and subtidal portions of the Study Area for the presence, or potential for presence, of special-status species and sensitive habitats. The marine survey would be completed to augment the preparation of the BRA and BA, as well as the cultural resource assessment (CRA), discussed below. The BRA would determine if regulated biological resources (including special status species, critical habitat, and EFH) are present and potentially impacted by the selected alternative(s). The BRA will include a literature/database review, reconnaissance field survey of the Study Area, report of findings, and recommended measures for resource protection. The BRA will analyze potential impacts to sensitive biological resources including, but not limited to, federally designated critical habitats, HAPCs, MPAs, and ESHAs. Optional surveys would include those for eelgrass and black abalone (*Haliotis cracherodii*), if determined to be recommended as part of the BRA. The BA will evaluate the potential effect of the proposed actions on endangered and threatened species and their habitats, including specific species and critical habitats. The BA is required under Section 7 of the FESA. The BA developed by the project proponent will be used by the USACE to consult with USFWS and NMFS. The BRA and BA would be utilized in preparation of the CEQA and NEPA documents, and would support permit acquisition. In addition, an Aquatic Resources Determination (ARD) is recommended to identify, locate, and determine the boundaries and type of aquatic resources (including wetlands) within the Study Area. The ARD will help to determine which State and federal agencies have jurisdiction over the waters within the Study Area and specific permitting needs.

Restoration

All areas subject to temporary disturbance should be restored to pre-existing conditions, as feasible. Marine resources should be maintained, enhanced, and where feasible, restored. Special protection should be given to areas with species and habitats of special biological or economic significance.

Offshore sensitive habitat (also qualifying as ESHA) such as eelgrass, rocky intertidal, or kelp beds affected would be subject to a restoration plan approved by the CCC, CSLC, CDFW (for take or upland), RWQCB, and USACE. These agencies would require that any area directly or indirectly affected by the implemented concept design be restored to pre-project conditions (or better), including at least three years of maintenance, monitoring, and agency reporting.

5 Environmental Compliance Pathways

5.1 Concept design Overview and Considerations

This report recognizes that any potential OSW O&M facility landside development in Morro Bay would need to be assessed on a site-by-site basis. That said, the land use, environmental review, and regulatory permitting requirements and processes are outlined comprehensively in this section and in previous sections to inform a range of potential development options.

Both Option 4A and Option 4B are modified concepts of the least constrained concept design (Option 4) that accommodate the berthing of two SOV's at the North T-Pier and incorporate significant upgrades to the North T-Pier and waterfront commercial fishing and visitor serving facilities. The split location concept designs accommodate only one SOV and involve the co-location of the existing USCG and Morro Bay Harbor Department facilities with the OSW O&M facilities at the North T-Pier. A detailed study would be required to identify how the three facilities could co-locate without interfering with one another and what structural improvements would be required to ensure adequate separation of the three. Option 4A, Option 4B, and Split Location variant concept designs (Variant A, B and C), centered around the North T-Pier, were determined to be the least constrained concept designs because their smaller spatial extent would limit impacts to community and visitor access and use and environmental resources, as well as reduce costs. The primary differences between the Options 4A and 4B are the location of the intermediate staging area. The Split Location variant concept designs reduce the distance of the new North T-Pier from shore and its northern extent, as well as its overall size, when compared to Options 4A and 4B. The Split Location variant concept designs also integrate significant upgrades to the USCG, Morro Bay Harbor Department, and the southern extension of the North T-Pier that would support commercial fishing uses. An overview of the anticipated environmental permitting requirements, constraints, and opportunities for Options 4A and 4B and the Split Location variants is presented in the following sections.

5.2 Environmental Permitting Requirements

The following sections provide an overview of the anticipated State, federal, and local permitting processes and approvals that would be required to construct the least constrained feasible concept designs described in this report. Each of the concept designs include proposed development of submerged lands in the marine environment and within the Coastal Zone. Development below the mean high tide line or mean high water (MHW) mark in waters that connect to the ocean are within USACE jurisdiction and the USACE leads interactions with the other federal agencies (NMFS, USFWS, USEPA, etc.) to address potential impacts to protected species, sensitive habitat and water quality.

The City of Morro Bay has exclusive local land use authority to determine the appropriateness of uses and vision for development on its waterfront. This authority is not preempted by State or Federal regulations. Future OSW O&M facilities would require City of Morro Bay land use permits, rezoning, land use designation changes, and likely changes to the City Waterfront Master Plan, following the process prescribed in the City's Zoning Code, including voter approval for changes to the Land Use Element map designations in the Measure A-24 area. Following City approvals, a developer could submit to the Coastal Commission for a consolidated CDP, in accordance with SB 286 guidance. The CCC, based on SB 286 guidance, would lead a consolidated CDP process and

provide concurrence to the USACE for portions of the development(s) within CCC jurisdiction. Additional permits from the Central Coast Regional Water Quality Control Board (CCRWQB) and potentially CDFW would also need to be acquired depending on the concept design's potential impacts. The project proponent would be responsible for the funding and development of the various permit packages and supporting technical studies for submittal to the USACE, CCC, RWQCB and the City of Morro Bay. The anticipated federal, State, and local permitting requirements are described in further detail below.

5.2.1 Federal Permitting

The USACE is responsible for administering several federal programs related to ensuring the quality and navigability of the nation's waters. Section 404 of the CWA authorizes the Secretary of the Army, acting through the USACE, to issue permits regulating the discharge of dredged or fill materials into the "navigable waters at specified disposal sites." Section 502 of the CWA further defines "navigable waters" as "waters of the United States, including the territorial seas." For the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the USEPA.

Section 401 of the CWA requires an applicant requesting a federal license or permit for an activity that may result in any discharge into navigable waters (such as a Section 404 Permit) to provide State certification that the proposed activity will not violate State and federal water quality standards. CWA Sections 404 and 401 are typically consolidated into a CWA 404/401 permitting process and administered by the USACE. Additionally, Sections 9, 10 and 14 of the Rivers and Harbors Act of 1899 requires authorization from the USACE and in some cases the USCG for the construction or alternation of any structure in or over any navigable water or alterations to aids to navigation of the United States.

The USFWS and NMFS share responsibility for implementing several laws protecting the Nation's fish and wildlife resources, including the FESA (16 United States Code [USC] Sections 153 et seq.), MBTA (16 USC Sections 703-711), and the Bald and Golden Eagle Protection Act (16 USC Section 668). Generally, the USFWS implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadromous species. Projects that would result in "take" of any threatened or endangered animal species, or a threatened or endangered plant species if occurring on federal land, are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of the FESA, depending on the involvement by the federal government in funding, authorizing, or carrying out the project. Approvals regarding compliance with the MMPA from NMFS would be required when projects could result in unintentional "take" of marine mammals. Proposed or candidate species do not have the full protection of the FESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time. The MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the USFWS.

The MBTA of 1918 implements four international conservation treaties that the U.S. entered into with Canada in 1916, Mexico in 1936, Japan in 1972, and Russia in 1976. It is intended to ensure the sustainability of populations of all protected migratory bird species. The law has been amended with the signing of each treaty, as well as when any of the treaties were amended, such as with Mexico in 1976 and Canada in 1995.

The various concept designs are expected to require most if not all the following federal approvals:

Primary Federal Approvals

- **Clean Water Act Section 404/401 Permit** from the USACE for discharges of dredged or fill material into waters of the United States would be triggered by sediment movement (dredging) and/or installation of permanent structures (e.g., pier pilings) in the marine environment, as well as discharges into freshwater streams, and associated wetlands when present, that have a direct hydrologic surface connection to a Traditional Navigable Water (TNW) such as the Pacific Ocean. Depending on the total area and/or linear feet of impacts to waters of the United States, the concept design would require a Nationwide Permit (NWP), a Letter of Permission (LOP), or an Individual Permit (IP). Section 401 and Section 404 of the Clean Water Act regulate water resources differently. States certify projects based on water quality standards under 401, whereas the Army Corps evaluates ecological impacts under 404.
- **Rivers and Harbors Act Section 9 Permit** from the USCG is required for the construction of bridges, causeways, dams, or dikes within or over navigable waters. The USCG Department of Waterways works collaboratively with the USACE for any changes to navigational structures, channels or moorings as well as installation of any private aids to navigation.
- **Rivers and Harbors Act Section 10 Permit** from the USACE for work in navigable waters. A NWP, LOP, or IP would cover this approval as well, as it is a joint Section 404/Section 10 permit.
- **Rivers and Harbors Act Section 14 Permit** from the USACE for work that makes alterations to any USACE civil works project (navigational channel, levee, etc.). Section 14 of the Rivers and Harbors Act, 33 USC Section 408, authorizes the USACE to grant permission for the alteration, occupation or use of USACE civil works projects if not injurious to the public interest or will not impair the usefulness of the project.

Secondary Federal Approvals and Processes Triggered by Primary Approvals

- **NEPA Review.** Given that each of the concept designs would require a Section 404/401 permit from the USACE, the responsible entity would be the USACE unless the concept design receives federal funding from another federal agency (e.g., Federal Energy Regulatory Commission). Like CEQA, NEPA requires disclosure of the environmental effects of federal actions. If a NWP is used, USACE would not be required to complete a new NEPA review. If a Section 404 LOP or IP is issued and/or an Incidental Harassment Authorization (IHA)/ Letter of Authorization (LOA) is authorized, NEPA review would be triggered. NEPA is discussed further in Section 5.4, *CEQA and NEPA Requirements*.
- **Endangered Species Act Section 7 Consultation(s).** Section 7 of the FESA requires federal agencies to consult with the USFWS (for terrestrial species and tidewater goby) and/or NMFS (for marine and anadromous species) before authorizing projects that would affect threatened or endangered species and/or their critical habitat. The USACE would likely lead this consultation and request that a BA for each applicable agency be prepared by the project proponent to facilitate consultation(s).
- **Marine Mammal Protection Act Authorization.** Authorization from the NMFS is required when projects could result in unintentional “take” of marine mammals, including activities that cause injury or significantly disrupt marine mammal behavior. The USACE consults with NMFS regarding the MMPA as part of the 404/401 process but if take is anticipated, an IHA or LOA would be appropriate to be developed and submitted to NMFS Protected Species division to approve take and avoid potential project delays. The USACE NEPA process would be expected to cover MMPA, but the USACE may request the applicant’s IHA or LOA to provide the necessary analysis required under NEPA.

- **National Historic Preservation Act Section 106 Consultation.** Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consult with the State Historic Preservation Officer (SHPO) before authorizing an undertaking that would affect a historic property. A CRA that addresses archaeological and historical resources present within the APE including a marine survey to assess the intertidal and subtidal portions of the APE for the presence of cultural resources would be required. The CRA would be utilized in preparation of the CEQA and NEPA documents and would support the Section 106 consultation. In addition, it is required that a list of Tribes culturally affiliated with the Study Area be obtained from the Native American Heritage Commission, and Tribal outreach is conducted to support the Section 106 consultation, Assembly Bill 52, and CEQA requirements. Section 106 consultation also requires outreach to interested parties, such as local historic groups, and local agencies.
- **Coastal Zone Management Act (CZMA) Consistency Certification from the California Coastal Commission** is required for development in the coastal zone regulated by federal permits (e.g., USACE). This certification is issued by the CCC to confirm that federally permitted actions proposed within or affecting the Coastal Zone are consistent with the State’s Coastal Zone Management Plan (e.g., the California Coastal Act). However, once a CCC CDP (discussed below) has been issued, that permit automatically satisfies federal consistency, and no further submittal would be needed.
- **Essential Fish Habitat Consultation.** The Magnuson-Stevens Fisheries Conservation and Management Act requires federal agencies to consult with NMFS prior to taking actions that would affect EFH. The USACE would likely lead this consultation in coordination with other Section 7 consultations and typically prefers the EFH analysis to be included in the projects BA.

5.2.2 State Permitting Overview

The City of Morro Bay’s certified LCP gives it the authority to issue CDPs, in accordance with the Coastal Act and the City’s LCP. However, the CCC retains CDP jurisdiction in certain areas known as “Coastal Original Jurisdiction”, which include current and former tidelands, submerged lands, and areas of public trust, as shown on the City of Morro Bay’s official Post Certification Maps. The City’s CDP authority is also appealable to the CCC for development in certain areas, including within 100 feet of an environmentally sensitive habitat areas or within 300 feet of a coastal bluff.

The CCC regulates offshore and coastal zone activities under the auspices of the Coastal Act through the issuance of CDPs. The key goals of the Coastal Act are protecting and enhancing coastal resources, maximizing public access, prioritizing coastal-dependent activities and encouraging sustainability. The CCC has jurisdiction in the coastal zone and within State waters. Jurisdiction for the inland areas of the coastal zone also resides with the CCC, except in jurisdictions, such as Morro Bay, with a certified LCP.

As stated previously, SB 286 streamlines offshore wind development by enabling a consolidated coastal development permit, allowing the CCC to issue one coastal development permit for offshore wind projects. Pursuant to SB 286, local agencies are invited to review and participate in the consolidated permitting process, but the CCC has ultimate CDP approval rights and may override local coastal plan policies, if deemed necessary. However, SB 286 does not enable the CCC to override local land use and zoning designations; nor does it eliminate the need for local land use permits from the City of Morro Bay. Furthermore, the CCC would look to the City’s LCP, including the Waterfront Master Plan, as guidance when reviewing a consolidated CDP.

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) have jurisdiction over “waters of the State,” which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State (California Water Code sec. 13050(e)). These agencies also have responsibilities for administering portions of the CWA.

In Central California, CWA Section 401 Water Quality Certification (Section 401 Certification) is issued by the RWQCB and informs the USACE (or the applicable agency from which a license or permit was requested) that an application has been submitted. Additionally, the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne requires any person discharging or proposing to discharge waste that could affect the quality of waters of the State to file a Report of Waste Discharge with the appropriate RWQCB. The RWQCB may then authorize the discharge, subject to conditions, by issuing Waste Discharge Requirements (WDRs). The Procedures state that they are to be used in issuing CWA Section 401 Certifications and WDRs and largely mirror the existing review requirements for CWA Section 404 Permits and Section 401 Certifications, incorporating most elements of the USEPA’s Section 404(b)(1) Guidelines.

The CDFW administers several State laws protecting fish and wildlife resources and the habitats upon which they depend. The CESA (Fish and Game Code Section 2050 et. seq.) prohibits take of State listed threatened or endangered. Unlike the FESA, CESA’s protections extend to candidate species during the period (typically one year) while the California Fish and Game Commission decides whether the species warrants CESA listing. The CDFW enforces Sections 3511, 4700, 5050, and 5515 of the Fish and Game Code, which prohibit take of species designated as Fully Protected. The CDFW is not allowed to issue an Incidental Take Permit for Fully Protected species; therefore, impacts to these species must be avoided.

The concept designs are expected to require the State of California approvals described in the subsections below. Based on SB 286 guidance, the CCC would utilize a consolidated permit process and lead the engagement with other State resource agencies. The project proponent would be responsible for the funding and development of technical studies or supporting materials requested by the CCC and would be required to pay permitting fees based on the size and type of proposed development. It should be noted that primary State approval would not generally be issued until after CEQA documentation has been certified.

Primary State Approvals

- **Tidelands Lease Agreement** from the CSLC will be required for work seaward of the mean high tide line or review of existing Tidelands Lease Agreements for permissible development or use.
- **Coastal Development Permit** from the CCC for offshore and coastal zone activities would need to be approved and issued by the CCC since “development” would occur. CCC would also address CZMA consistency for federal permits in a separate action.
- **Streambed Alteration Agreement** pursuant to Section 1600 et seq. of the CFGC requires notification to the CDFW for activities that substantially alter stream resources. This requirement does not apply to the marine environment but could be triggered if the concept design may affect stream resources that are not subject to tidal influence.
- **Water Quality Certification and/or Waste Discharge Requirements** issued by the RWQCB are required when a federal permit authorizes discharge into waters of the United States (e.g., NWP) and/or when a proposed activity results in a discharge into waters of the State,

respectively. A Water Quality Certification is required for work within tidelands and subject to CEQA. A pre-filling meeting must be requested 30 days in advance of the application submittal and an alternatives analysis must be submitted with the WQC or WDR application.

- **Incidental Take Permit (ITP)** would be required from CDFW if the concept design would result in take of a State-listed threatened or endangered or candidate species. The ITP would be issued after the CEQA document is certified and application is deemed complete.

Secondary State Approvals and Processes Triggered by Primary Approvals

- **CEQA Review.** Based on conversations with CSLC, CCC, City of Morro Bay, and San Luis Obispo County, the City of Morro Bay would serve as the lead CEQA agency as the area has been granted to the City via a State Tidelands Grant. The CEQA lead agency must complete the appropriate CEQA document to approve the proposed development. As a lead agency, the City of Morro Bay would require that a CEQA document and supporting technical studies be prepared. The State approvals listed above are discretionary and these agencies would be responsible agencies that rely on the certified CEQA document. CEQA is discussed further in Section 4.5, *CEQA and NEPA Requirements*.

5.2.3 Local Permitting Overview

Future proposals for O&M facilities within the coastal zone would require City of Morro Bay land use permits (e.g., Conditional Use Permits) and building permits and would have to be found consistent with all City of Morro Bay land use regulations, including voter approval for any necessary changes to land use designations. The standard of review for the City's land use permits is the City's Municipal Code, General Plan, and required findings contained therein. These requirements are not superseded by the SB 286 consolidated CDP process described above.

The least constrained concept designs (Option 4A, Option 4B, and Split Location variants) identified for Morro Bay involve in-water, overwater, shoreline, and inland construction that would require comprehensive biological and cultural resource assessments, threatened and/or endangered species biological assessment (BA), and an Essential Fish Habitat evaluation to support the USACE 404/401 permitting process. If the final designs involve work in or near freshwater or estuarine water ways of wetlands, then permitting would likely require a wetland delineation and rare plant survey. Technical studies are required by both federal and State agencies as components of their permit applications. Additional technical studies to support CEQA and NEPA review, including cultural resources, air quality, and noise studies, would also be required, as detailed in Section 5.4, *CEQA and NEPA Requirements*. Table 3 presents a matrix identifying the federal, State, and local permits and authorizations anticipated to be required for the least constrained concept designs.

Table 3 Federal, State, and Local Permitting Matrix

Concept designs	Federal Permits								State Permits			Local Permits	
	USACE				USCG	NMFS			USFWS	RWQCB	CCC	CDFW	Morro Bay
	CWA Section 404	RHA Section 10	RHA Section 14	NHPA Section 106/SHPO	CWA Section 408*	MSA EFH	MMPA IHA	FESA Section 7	FESA Section 7	CWA Section 401/Porter-Cologne Act	Coastal Act	CFGF Section 1600 et seq.	Conditional Use Permit
Do Nothing	X	X		X		X	X		X	X	X		X
Do Minimum	X	X	X	X	X	X	X	X	X	X	X		X
Option 1	X	X	X	X	X	X	X	X	X	X	X		X
Option 2	X	X	X	X	X	X	X	X	X	X	X		X
Option 3	X	X	X	X	X	X	X	X	X	X	X		X
Option 4	X	X	X	X	X	X	X	X	X	X	X		X
Option 4A	X	X	X	X	X	X	X	X	X	X	X		X
Option 4B	X	X	X	X	X	X	X	X	X	X	X		X
Split Location Variant A	X	X	X	X	X	X	X	X	X	X	X		X
Split Location Variant B	X	X	X	X	X	X	X	X	X	X	X		X
Split Location Variant C	X	X	X	X	X	X	X		X	X	X		X

CWA = Clean Water Act; RHA = Rivers and Harbors Act; NHPA = National Historic Preservation Act; MSA = Magnuson-Stevens Fishery Conservation and Management Act; EFH = Essential Fish Habitat; MMPA = Marine Mammal Protection Act; IHA = Incidental Harassment Authorization; FESA = Federal Endangered Species Act; CFGC = California Fish and Game Code; CDP = Coastal Development Permit

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5.3 Land Use and Zoning Considerations

Under SB 286 a consolidated permit would be obtained from the CCC, and a coastal development permit from the City would not be required. However, SB 286 does not permit the CCC to override local land use and zoning designations or permitting requirements. The least constrained concept designs include development at the North T-Pier as well as nearby Intermediate Staging Zone facilities, and constraints on the identified parcels are assessed herein. In addition, the larger Study Area was reviewed for general feasibility of development of OSW O&M facilities based on proximity to Morro Bay Harbor, land use designations, and existing development. Parcels designated for open space were eliminated from consideration, as well as properties containing existing development (such as residences and schools) that would not be compatible with OSW O&M facilities.

Areas considered under this feasibility assessment are designated Coastal Dependent Industrial, Public/Institutional, High Density Residential, Visitor Serving Commercial, Commercial/Recreational Fishing, General (Light) Industrial, Low Density Residential, and District Commercial. In some of the areas designated Visitor Serving Commercial, a Mixed-Use Residential Overlay also exists. In addition to these land use designations, some areas occur within the boundaries of Measure A-24 and Measure D, which provide for additional land use regulations in these areas.

OSW O&M facilities could be categorized by the City as one of a few different land use classifications, depending on the specific facility details. Depending on the ultimate project description, future O&M facilities could potentially fit into the following classifications: Harbor, Port, and Marina Facilities, Construction and Material Yards, Warehousing and Storage, or Industrial use categories depending on project specifics. If the OSW O&M facility was limited to a typical office building, then it could be considered part of the Offices use classification. MBMC Chapter 17.53, Use Classifications, provides the following definitions for these land uses:

- **Harbor, Port, and Marina Facilities.** Facilities that provide a range of services related to the use of boats and other watercraft and commercial and recreational fishing. Services may include, but are not limited to, boating moorings; boat haul out; sales, storage, construction, repair, and maintenance of boats, boat parts, and other marine-related items; marine fueling stations and washing facilities; seafood processing, boat and watercraft charter operations; offices; bait and tackle shops; and hardware sales.
- **Construction and Material Yards.** Storage of construction materials or equipment on a site other than a construction site.
- **Warehousing and Storage.** Storage and distribution facilities without sales to the public on-site or direct public access except for public storage in small individual space exclusively and directly accessible to a specific tenant.
- **Industrial.** Establishments engaged in any of the following types of activities taking place within enclosed buildings: manufacturing finished parts or products primarily from previously prepared materials; providing industrial services; or conducting industrial or scientific research, including product testing.
- **Offices.** Offices of firms, organizations, or public agencies providing professional, executive, management, administrative or design services, such as accounting, architectural, computer software design, engineering, graphic design, interior design, investment, insurance, and legal offices, excluding banks and savings and loan associations with retail banking services (see banks and financial institutions). This classification also includes offices where medical and dental services are provided by physicians, dentists, chiropractors, acupuncturists, optometrists,

and similar medical professionals, including medical/dental laboratories within medical office buildings, but excludes clinics or independent research laboratory facilities (see research and development) and hospitals

Table 4 describes the permitting requirements for development of OSW O&M facilities within the land use designations and use categories listed above, as well as the applicable sections of the MBMC that determine the use standards. However, it should be noted that OSW O&M facilities may not fit neatly into any of the City's existing use classifications. Pursuant to MBMC Section 17.06.020, in cases where a specific land use or activity is not defined, the Director shall assign the land use or activity to a classification that is substantially similar in character or may determine that the use is not allowable, in which case a zoning code amendment would be required to add the appropriate use classification.

Table 4 Allowable Land Uses and Permit Requirements

Land Use Designation	Permit Requirement	Specific Development Standards	Permit Requirements
Coastal Dependent Industrial ¹	<p>Harbor, Port, and Marina Facilities: Permitted (P) Construction and Material Yards: Not permitted Indoor Warehousing and Storage: Permitted (P1) Outdoor Storage: Conditionally Permitted (C1) Light Industrial: Permitted (P1) General Industrial: Permitted (M1) Offices: Permitted (P1)</p>	MBMC Section 17.09.030	<p>Harbor, Port, and Marina Facilities: Zoning clearance, Coastal Development Permit Indoor Warehousing and Storage: Zoning clearance, Coastal Development Permit Outdoor Storage: Conditional Use Permit, Coastal Development Permit Light Industrial: Zoning clearance, Coastal Development Permit General Industrial: Minor Use Permit, Coastal Development Permit Offices: Zoning clearance, Coastal Development Permit</p>
Public/Institutional (Public Facilities)	<p>Harbor, Port, and Marina Facilities: Conditionally Permitted (C) Construction and Material Yards: Not permitted Indoor Warehousing and Storage: Not permitted Outdoor Storage: Not permitted Light Industrial: Not permitted General Industrial: Not permitted Offices: Not permitted</p>	MBMC Section 17.09.030	<p>Harbor, Port, and Marina Facilities: Conditional Use Permit, Coastal Development Permit</p> <p>For all other uses, a General Plan land use designation and zoning amendment would be required.</p>
General (Light) Industrial	<p>Harbor, Port, and Marina Facilities: Not permitted Construction and Material Yards: Permitted (P) Indoor Warehousing and Storage: Permitted (P) Outdoor Storage: Conditionally Permitted (C) Light Industrial: Permitted (P) General Industrial: Permitted (M) Offices: Permitted (P)</p>	MBMC Section 17.09.030	<p>Construction and Material Yards: Zoning clearance, Coastal Development Permit Indoor Warehousing and Storage: Zoning clearance, Coastal Development Permit Outdoor Storage: Conditional Use Permit, Coastal Development Permit Light Industrial: Zoning clearance, Coastal Development Permit General Industrial: Minor Use Permit, Coastal Development Permit Offices: Zoning clearance, Coastal Development Permit</p>

County of San Luis Obispo Operations and Maintenance Waterfront Infrastructure and Site Readiness Plan Study: City of Morro Bay

Land Use Designation	Permit Requirement	Specific Development Standards	Permit Requirements
District Commercial	<p>Harbor, Port, and Marina Facilities: Not permitted</p> <p>Construction and Material Yards: Not permitted</p> <p>Indoor Warehousing and Storage: Not permitted</p> <p>Outdoor Storage: Not permitted</p> <p>Light Industrial: Not permitted</p> <p>General Industrial: Not permitted</p> <p>Offices: Permitted (P)</p>	<p>MBMC Sections 17.08.030 and 17.08.040</p>	<p>Offices: Zoning clearance, Coastal Development Permit</p> <p>For all other uses, a General Plan land use designation and zoning amendment would be required.</p>
Visitor Serving Commercial	<p>Harbor, Port, and Marina Facilities: Conditionally Permitted (C)</p> <p>Construction and Material Yards: Not permitted</p> <p>Indoor Warehousing and Storage: Not permitted</p> <p>Outdoor Storage: Not permitted</p> <p>Light Industrial: Not permitted</p> <p>General Industrial: Not permitted</p> <p>Offices: Not permitted</p>	<p>MBMC Sections 17.08.030 and 17.08.040</p>	<p>Harbor, Port, and Marina Facilities: Conditional Use Permit, Coastal Development Permit</p> <p>For all other uses, a General Plan land use designation and zoning amendment would be required.</p>
Visitor Serving Commercial with Mixed-use Residential Overlay	<p>Harbor, Port, and Marina Facilities: Conditionally Permitted (C)</p> <p>Construction and Material Yards: Not permitted</p> <p>Indoor Warehousing and Storage: Not permitted</p> <p>Outdoor Storage: Not permitted</p> <p>Light Industrial: Not permitted</p> <p>General Industrial: Not permitted</p> <p>Offices: Not permitted</p>	<p>MBMC Sections 17.08.030, 17.08.040, and 17.16</p>	<p>Harbor, Port, and Marina Facilities: Conditional Use Permit, Coastal Development Permit</p> <p>For all other uses, a General Plan land use designation and zoning amendment would be required.</p>
Visitor Serving Commercial within Measure A-24 area	<p>Harbor, Port, and Marina Facilities: Conditionally Permitted (C)</p> <p>Construction and Material Yards: Not permitted</p> <p>Indoor Warehousing and Storage: Not permitted</p> <p>Outdoor Storage: Not permitted</p> <p>Light Industrial: Not permitted</p> <p>General Industrial: Not permitted</p> <p>Offices: Not permitted</p>	<p>MBMC Sections 17.08.030 and 17.08.040</p>	<p>Harbor, Port, and Marina Facilities: Conditional Use Permit, Coastal Development Permit</p> <p>For all other uses, a General Plan land use designation and zoning amendment would be required. Approval by a voter ballot initiative would be required to make these alterations.</p>

Land Use Designation	Permit Requirement	Specific Development Standards	Permit Requirements
Commercial/ Recreational Fishing within Measure D area	Harbor, Port, and Marina Facilities: Conditionally Permitted (C) Construction and Material Yards: Not permitted Indoor Warehousing and Storage: Not permitted Outdoor Storage: Not permitted Light Industrial: Not permitted General Industrial: Not permitted Offices: Not permitted	MBMC Sections 17.11.040 and 17.11.050	Harbor, Port, and Marina Facilities: Conditional Use Permit, Coastal Development Permit. Use must be found to be supportive of fishing activities. For all other uses, a General Plan land use designation and zoning amendment would be required. Approval by a voter ballot initiative would be required to make these alterations.
High Density Residential	Harbor, Port, and Marina Facilities: Not permitted Construction and Material Yards: Not permitted Indoor Warehousing and Storage: Not permitted Outdoor Storage: Not permitted Light Industrial: Not permitted General Industrial: Not permitted Offices: Conditionally permitted (C)	MBMC Sections 17.07.030 and 17.07.040	Offices: Conditional Use Permit, Coastal Development Permit For all other uses, a General Plan land use designation and zoning amendment would be required.
Low Density Residential	Harbor, Port, and Marina Facilities: Not permitted Construction and Material Yards: Not permitted Indoor Warehousing and Storage: Not permitted Outdoor Storage: Not permitted Light Industrial: Not permitted General Industrial: Not permitted Offices: Not permitted	MBMC Sections 17.07.030 and 17.07.040	A General Plan land use designation and zoning amendment would be required.

sf = square feet, MBMC = Morro Bay Municipal Code

¹ Limited to coastal-dependent and coastal-related uses. Development priority shall be given to coastal-dependent uses.

Source: City of Morro Bay Municipal Code

County of San Luis Obispo Operations and Maintenance Waterfront Infrastructure and Site Readiness Plan Study: City of Morro Bay

As described in Section 3, *Land Use and Zoning Setting*, the least constrained concept designs include development at the North T-Pier, which is within the boundaries of Measures A-24 and D. The City would need to find that OSW O&M facilities at the North T-Pier are supportive of fishing activities, pursuant to Measure D and MBMC Chapter 17.11, in order for the facilities to be permitted. If the City finds that OSW O&M facilities at the North T-Pier do not meet the requirements of the Commercial Fishing zone, a General Plan land use designation would need to be approved via majority vote on a voter initiative ballot.

Additionally, the following land use considerations apply to the Intermediate Staging Zones identified in the least constrained concept designs:

- **Option 4A:** The Intermediate Staging Zone is located on a parcel with a land use designation of Commercial/Recreational Fishing and zoning designation of Commercial Fishing. Measures A-24 and D apply to this site. The concept design would need to create an Intermediate Staging Zone facility that integrates significant components that are supportive of fishing activities, pursuant to Measure D and MBMC Chapter 17.11, in order for the facility to be permitted. If the City finds the Intermediate Staging Zone facility does not meet the requirements of the Commercial Fishing zone, a General Plan land use designation and zoning change would need to be approved. The land use designation change would be subject to voter approval, in addition to Planning Commission, City Council, and Coastal Commission approval, in accordance with Measure A-24.
- **Option 4B:** Based on the City's land use and zoning GIS maps and concept design figures, the Intermediate Staging Zone appears to be located within City property (a parking area) within the public right-of-way (no zoning or land use designation is established for this location). Measure A-24 and Measure D do not apply to this site. Provided the maps and concept design figures are accurate, there would not be major land use and zoning constraints to developing an Intermediate Staging Zone facility in this location, but City encroachment permits and other requirements would be anticipated to apply.
- **Split Location Variant A:** The Intermediate Staging Zone is located on a parcel with a land use designation of Public/Institutional and zoning designation of Public Facility. Measures A-24 and D do not apply to this site. An Intermediate Staging Zone facility could be conditionally permitted in this location if it was considered to be part of the Harbor, Port, and Marina Facilities use classification. For all other use categories, a General Plan land use amendment and zone change would be required, but a voter ballot initiative would not be necessary as part of the approvals process.
- **Split Location Variant B:** The Intermediate Staging Zone is located on a parcel with a land use designation of Commercial/Recreational Fishing and zoning designation of Commercial Fishing. Measures A-24 and D apply to this site. The concept design would need to create an the Intermediate Staging Zone facility that integrates significant components that are supportive of fishing activities, pursuant to Measures A-24 and D and MBMC Chapter 17.11, in order for the facility to be permitted. If the City finds the Intermediate Staging Zone facility does not meet the requirements the Commercial Fishing zone, a General Plan land use designation and zoning change would need to be approved. The land use designation change would be subject to voter approval, in addition to Planning Commission, City Council, and Coastal Commission approval, in accordance with Measure A-24.
- **Split Location Variant C:** The Intermediate Staging Zone is located on a parcel with land use and zoning designations of Visitor Serving Commercial. Measure A-24 applies to this site, but Measure D does not apply. An Intermediate Staging Zone facility could be conditionally

permitted in this location if it was considered to be part of the Harbor, Port, and Marina Facilities use classification. If the City finds the Intermediate Staging Zone facility is not a permitted use in the Visitor Serving Commercial zone, a General Plan land use designation and zoning change would need to be approved. The land use designation change would be subject to voter approval, in addition to Planning Commission, City Council, and Coastal Commission approval, in accordance with Measure A-24.

The areas where OSW O&M facilities can be developed under City authority would be dependent upon the land use classification that the City considers the facilities to fall under. Pursuant to MBMC Section 17.06.020, if the City determines that OSW O&M facilities do not fit into the City's existing land use classifications, a zoning code amendment would be required to add the appropriate use classification. Nonetheless, as illustrated in Table 4, the Coastal Dependent Industrial and General (Light) Industrial land use districts appear to present the greatest flexibility for development of OSW O&M facilities. OSW O&M facilities would require a CDP issued by the CCC, with City of Morro Bay CUP requirements depending on the land use classification for the OSW O&M facility and the land use designation of the parcel. For sites where OSW O&M facilities would not fall within one of the permitted uses (including conditionally permitted), an amendment to the General Plan land use and/or zoning designations would be required.

As described above, OSW O&M facilities utilizing the North T-Pier and Intermediate Staging Zone locations within the boundaries of Measures A-24 and D would face major hurdles if the uses were not found to support commercial fishing and visitor serving uses. In these locations, any land use changes would require a majority vote of city residents through a ballot measure. This would present a major constraint to the feasibility of developing OSW O&M infrastructure given community opposition to new, industrial-type development in the waterfront area. City approval of a General Plan land use and zoning amendment, including the accompanying CEQA documentation, would be required prior to the CCC processing a CDP.

5.4 CEQA and NEPA Requirements

5.4.1 California Environmental Quality Act

OSW O&M facilities would require discretionary approvals by the CCC, CSLC, and/or City depending on the locations of proposed facilities and details of the project description. Preparation of an Environmental Impact Report (EIR) would likely be required. The CSLC or the City would serve as the lead agency for CEQA, pursuant to SB 286. CSLC and the City would coordinate to determine which agency would take the CEQA lead agency role for any OSW O&M facilities occurring within City jurisdiction. Based on initial conversations with the CSLC, CCC, San Luis Obispo County, and City, the City would likely take the lead agency role for CEQA.

CEQA Appendix G topics of particular concern for these facilities would include the following: Aesthetics, Air Quality, Biological Resources, Cultural Resources, Hydrology and Water Quality, Hazards and Hazardous Materials, Noise, Public Services and Recreation, Transportation, and Tribal Cultural Resources.

Technical studies that may be required to support the CEQA analysis include the following:

- Visual simulations/viewshed analysis
- Air Quality/Greenhouse Gas Emissions Study
- Noise Study

- Cultural Resources Analysis (CRA)
- Biological Resources Analysis (BRA)
- Marine Biological Resources Assessment (MBRA)
- Protocol Surveys for special status species (if determined or required by the BRA/MBRA)
- Traffic Study
- Phase I/II Environmental Site Assessment
- Geotechnical Study
- Hydrology Study

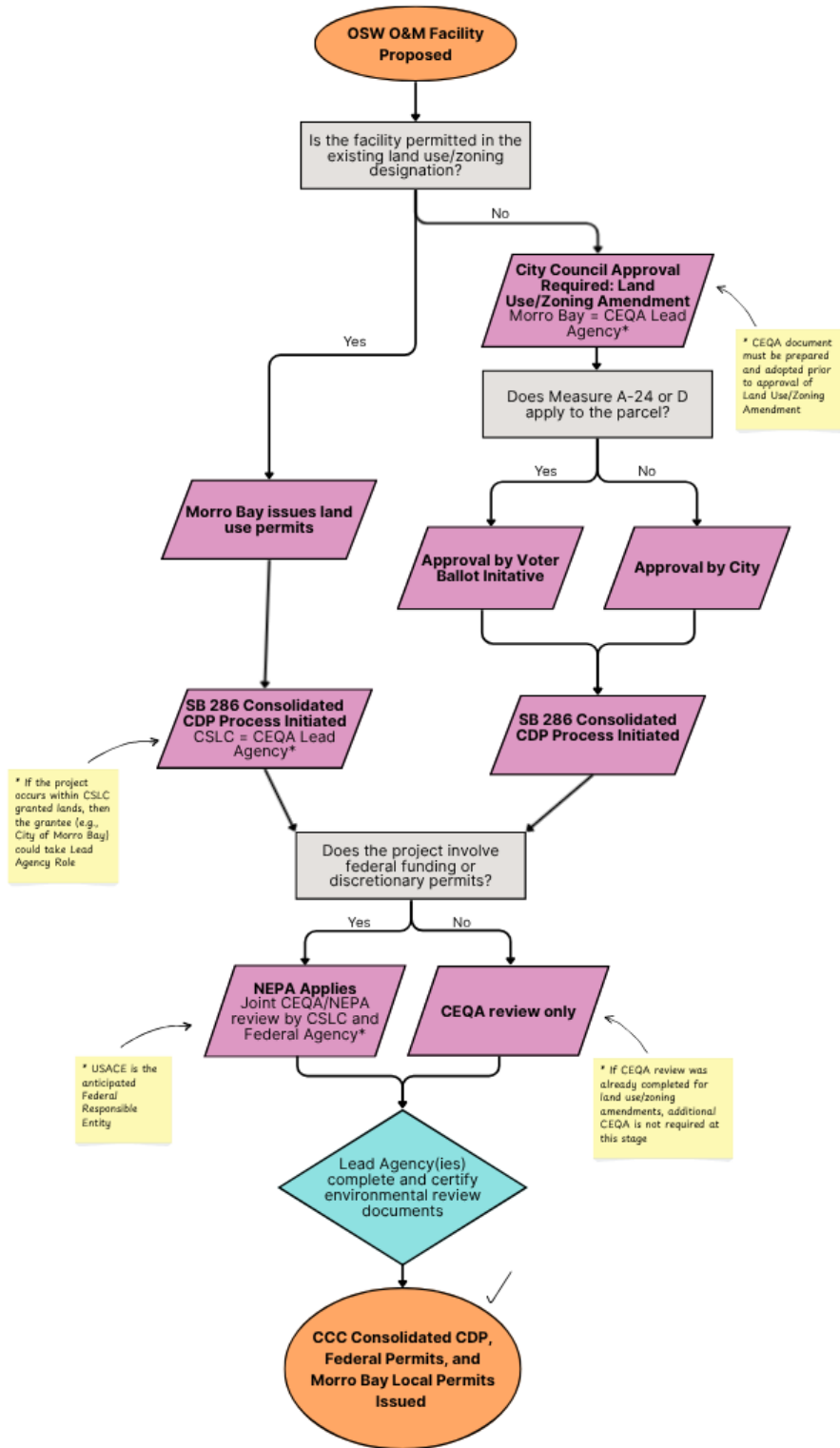
The typical timeframe for completion of each technical study is two to three months. The typical timeframe for completion of an EIR (inclusive of technical study preparation) is a minimum of one year, with more time required for complex or controversial projects. For a potential OSW O&M Facilities project, a timeframe of approximately 1.5-2 years is anticipated.

5.4.2 National Environmental Policy Act

If an OSW O&M facility includes federal funding sources or requires permit approvals by a federal agency such as the USACE (as would likely be required for any facilities occurring within Morro Bay Harbor), NEPA may be triggered depending on the specific permits required and funding received. If NEPA compliance is required, the responsible entity is anticipated to be USACE. Pursuant to SB 286, coordination between the CCC, CSLC, City of Morro Bay, and USACE would occur to avoid duplication of efforts under CEQA and NEPA. As such, there is the potential to prepare a Joint EIR/Environmental Impact Statement (EIS) or EIR/Environmental Assessment (EA) document. Another potential route would be to prepare a CEQA Plus document, which would take the form of the EIR discussed above, with additional federal checklist items added. Per discussions with the CCC and CSLC, a memorandum of understanding with USACE may be an additional option for fulfilling NEPA requirements. Finally, there is the potential for a standalone NEPA document to be developed by the project proponent to address multiple NEPA drivers (including USACE Section 404 permits and USFWS and NMFS authorization for incidental take of protected species). This document could be utilized by multiple federal agencies, if needed, to support their individual NEPA requirements.

Technical studies and analysis completed to support CEQA compliance would be utilized in the preparation of NEPA documentation. Timeframes for the NEPA process can vary substantially. If a Joint EIR/EIS is required, a timeframe of approximately 2.5-3 years is anticipated. If a CEQA Plus document is required, a timeframe of approximately 2 years is anticipated. The NEPA pathway would be determined by the permit requirements and funding source details, and in consultation with the responsible entity. Figure 17 provides a simplified flowchart illustrating the potential environmental review and permitting pathways for OSW O&M Facilities in Morro Bay.

Figure 16 Environmental Review and Land Use Permitting Flowchart



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6 Environmental Planning and Regulatory Permitting – Timelines and Costs

The least constrained concept design concepts for Morro Bay create multiple environmental planning and permitting scenarios dependent on the location of the primary facility and land ownership. For each of the concept designs the developments are within the Morro Bay CSLC grant deeded lands and within the coastal zone and CCC retained jurisdiction. The individual concept designs ultimately determine the complexity of the environmental planning and permitting processes. The development of a related but separate land-based OSW O&M facility (office space, maintenance yards, etc.) in or outside of the coastal zone may justify a separate environmental analysis and approval process depending on timing and its association with the proposed concept design. Each of the concept designs incorporates significant changes to the Morro Bay Harbor Federal Navigation Channel that would require early coordination with the USACE and support from the USCG prior to the development of preliminary design plans or start of any concept-specific planning or permitting efforts. Proposed changes to the Federal Navigation Channel could be led and funded by the USACE or the project proponent that would precipitate drastically different regulatory processes, timelines and cost considerations.

6.1 Environmental Planning

Environmental planning for concept designs that involve a consolidated and comprehensive in-water and landside coastal development design within Morro Bay's jurisdiction would be anticipated to be led by the City in coordination with the project proponent. As described above in Section 5.4, *CEQA and NEPA Review*, environmental review under CEQA and NEPA would be required. It is anticipated that the City would be the CEQA lead agency and USACE would be the NEPA responsible entity. Pursuant to SB 286, CEQA and NEPA review would be undertaken concurrently, utilizing the same technical studies. There is the potential for preparation of some form of a joint document (to be determined through consultation between the City and USACE). It is anticipated that a Joint EIR/EIS or EIR/EA would be prepared for OSW O&M facilities. Preparation of a Joint EIR/EIS or EIR/EA is expected to take two to three years, with an estimated cost of around \$1.5-2 million for preparation of the EIR/EIS or EIR/EA and associated technical studies.

6.2 Regulatory Permitting

Section 5.2, *Environmental Permitting Requirements*, provides an overview of the federal, State and local permitting agencies, statutes and authorizations under which biological, cultural, and water resources are managed at the federal, state, and local levels. The permitting process and approvals for each of the concept designs for Morro Bay would follow similar pathways and would need to be supported by various technical studies that would, in most cases, support both the environmental planning and permitting processes. The permitting timelines and estimates costs for federal, State, and local permits is provided in the following subsections.

6.2.1 Federal Permitting

Prior to the start of any permitting or planning actions, the proposed concept design and changes to the Federal Navigation Channel should be discussed informally with the USACE and USCG. Changes to the Federal Navigation Channel depth, extent, or alignment can be led by the project proponent, or be investigated through a local and federal cost shared study between a non-federal sponsor and the USACE, but follow very different processes, timelines, and cost considerations. In order for USACE to cost share on an investigation or eventual implementation, federal interest would need to be demonstrated. If the project proponent intends for USACE to support the project or to cost share on modifications to the Federal Navigation Channel, for either initial deepening or future channel maintenance to an increased depth, the USACE must first conduct a Federal Interest Determination (FID), and validate the feasibility and justification of the project through the civil works feasibility process. For small navigation projects that are not complex, the [Continuing Authorities Program, Section 107](#) is a program that can support a cost shared (50/50) feasibility study looking at changes to the small boat harbor and navigation in Morro Bay. The Continuing Authorities Program is subject to available funding nationally and new starts compete with requests enterprise wide. Section 107 projects must not exceed \$15 million in federal costs, including both the feasibility study, and design and implementation of the project (including maintenance costs over 50 years). For navigation projects exceeding this cost or complexity, a General Investigation feasibility study would need to be authorized by Congress and funded in order to proceed with a cost shared study. Should the study recommend an alternative for authorization, Congress would then need to authorize the design and construction, which would also be cost shared.

The FID involves verifying that the proposed project meets the requirements of federal interest and USACE responsibilities under the Continuing Authorities Program. The proposed action would need to align with federal interests as outlined in various legislative authorities and feasibility studies would need to be conducted to evaluate alternatives and recommend a plan for implementation. Partnering with non-federal sponsors could be formed to improve environmental quality and ensure alignment with federal processes but would require specific agreements and cost-sharing arrangements. If the USACE leads the effort, it would need to obtain funds from the federal government to perform the design study and prepare a memorandum of approval based on the study results and existing data. Once the design study is completed, the USACE would then have to request funding from U.S. Congress for the project; it could take years to obtain the funding and then more years to contract and execute the proposed project (3-7 years is an approximate estimate).

If the USACE completed a FID that was favorable for the concept design, the design study could be developed by the project proponent in collaboration with USACE to expedite the process and timeline to obtain an approved concept design for altering the Federal Navigational Channel. At this stage, the project proponent could continue to work with the USACE to pursue federal funding or choose an alternative pathway by funding the deepening and realignment of the Federal Navigation Channel themselves to expedite the timeline for initial dredging and construction. This would need to be coordinated formally with USACE. This would still require that the USACE and USCG support the proposed changes to the Federal Navigation Channel and that the concept design aligns with federal interests. To modify the proscribed depths of the Federal Navigation Channel and thus for the USACE to assume maintenance dredging responsibility of the deepened Federal Navigation Channel, an approved, detailed project report or feasibility report would be required to document feasibility, environmental acceptability, and economic justification, including NEPA compliance. If

the study was conducted under General Investigations, Congressional approval of the modifications to the Federal Navigation Channel would also be required. Construction would need to be approved by and formalized through agreements with the USACE.

Should the local proponent decide to undertake the work independently, federal permits would be required. In the case of a joint effort with USACE, federal permitting process would start with an informal initial engagement with the USACE engineering and regulatory entities to discuss the proposed action and scope of construction to confirm the scope and content of the design study, technical studies, consultations, and environmental analysis the USACE would require for both the 408 and 404/401 permitting processes. The USCG should be briefed and included as part of the initial outreach and engagement with the USACE. This assumes that the project proponent and concept design align with City land use policies and that the concept design contributes significant benefits to the community. Following informal engagement with the USACE and USCG that establishes mutually agreeable responsibilities, the project proponent would develop the necessary documents and studies to inform an acceptable design of the new Federal Navigation Channel.

Once the USACE has determined the necessary studies and information are in place, the formal permitting process can proceed through a pre-application meeting. The USACE would determine whether the 408 or 404 permit would serve as the NEPA responsible entity and a pre-application meeting would be scheduled that would include both divisions of the USACE. The pre-application meeting would also identify any of the other federal agencies that have not been previously informally engaged but warrant involvement. The complexity and siting of the individual concept design would influence the number of consultations and duration of the CWA 404/401 permitting process with streamlined permitting taking about nine to twelve months and protracted timelines between 16 to 24 months for concept designs that require comprehensive mitigation planning for dredging or extensive pile driving. The cost of the permitting process would be dependent on the concept design and the level of detail the engineering design drawings and alternatives analysis requires. Costs assume that the 408 permit and CWA Section 404/401 permitting processes would require a comprehensive BA and NHPA Section 106 compliance. Costs do not include technical studies (biological and cultural) outside of those developed as part of the CEQA/NEPA process nor do they include costs for mitigation for dredging impacts to submerged habitats, studies needed to permit take of marine mammals (IHA or LOA), or specific dredge characterization studies or approvals. The estimated cost is between \$350,000 and \$500,000. The cost to develop an IHA or LOA ranges from \$80,000 to \$150,000 and the development of a sediment sampling analysis plan, sediment characterization, and approvals would range from approximately \$150,000 to \$300,000 depending on the complexity of the field sediment characterization methods and sediment testing regime. Mitigation for impacts to habitats from dredging are likely to be significant but dredge material from the deepening of the Federal Navigation Channel is likely to be primarily sand and suitable for beneficial reuse in the form of beach nourishment. The use of the dredge material on the beach could partially offset impacts and reduce compensatory mitigation costs through the creation of out-of-kind habitat that supports coastal resiliency. Additional permit compliance monitoring costs ranging from \$200,000 to several hundred thousand dollars should be anticipated to address mitigation monitoring requirements associated with both landside and in-water construction.

6.2.2 State Permitting

The state permitting process would start with an informal initial engagement similar to the federal permitting process and the two could be combined for efficiency and consistency if scheduling

constraints can be overcome. The timeline for review and approval of CCC CDP's is approximately 6-12 months and would include a CCC hearing to ratify approval. The RWQCB WQC Individual Permit (IP) application requires a pre-application meeting a minimum of 30 days before application submittal and will require a certified CEQA document. The RWQCB WQC application and approval process timeline is similar to the CCC CDP of approximately 6-12 months. For potential take of California protected species under CESA, the project proponent would need to engage the CDFW and submit an ITP application. If all the species are also protected under FESA, then the determinations and mitigation measures provided by USFWS and NMFS through the CWA Section 404/401 Section 7 consultations can be presented for consideration and approval. The CDFW ITP approval process requires a 12- to 18-month timeframe. The cost of obtaining CDP, WQC and ITP approvals would be dependent on the concept design and would be anticipated to range from \$100,000 to \$250,000, assuming the CEQA document, technical studies, engineering design drawings, and alternatives analysis have already been prepared and are sufficient to support each of the state permits. The cost of preparing the CEQA document, technical studies, engineering design drawings, and alternative analysis are not included here.

6.2.3 Local Permitting

The vetting of a proposed concept design should first be reviewed by the City and Harbor District, to ensure that the design and extent of the proposed development aligns with City codes, approval criteria and existing waterfront masterplan visioning. In all cases, the preliminary concept design plans should be sufficient to show the spatial extent and details of the submerged, shoreline and land side development areas. Review timelines of the various City departments vary based on the complexity of the concept design and workload for the responsible departments. The City and Harbor District reviews are generally less than 60 days. As of the FY 25-26 fee schedule, the City's Conditional Use Permit fee is \$17,572. However, the City would likely require a reimbursement agreement from an OSW developer to recover the City's actual time and material costs to process a CUP application. The building permit fees would be determined based on the project valuation.

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C. Preliminary geotechnical desk study



CA Central Coast OSW - Phase II

Preliminary Geotechnical Desk Study - Morro Bay

Project:	CA Central Coast OSW – Phase II		
Our reference:	504101628-002	Your reference:	
Prepared by:	M Yazdi	Date:	November 21, 2024
Approved by:	O Pengilly	Checked by:	T Sheridan
Subject:	Morro Bay OSW O&M Geotechnical Desk Study		

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1 Introduction

Morro Bay has been identified as one of two potential sites for developing an offshore wind operations and maintenance (O&M) port, together with a second potential site at San Luis Obispo, which is reported separately. The O&M facility would support offshore wind farms by serving as a base of operations for offshore wind farm and for support vessels to travel to offshore wind farms and provide the needed maintenance and repairs.

Building on efforts in 2022 to assess port infrastructure opportunities to support offshore wind in Central California, the County of San Luis Obispo is seeking to further assess this area for feasibility to host an O&M facility. This report provides the geotechnical desk study of the Morro Bay site, using currently available data. The scope of this desk study includes:

1. Review of available geological maps, reports and other relevant data sources to identify potential geotechnical constraints such as groundwater, loose/soft surface soil, existing fill, compressible soil, expansive soil, liquefiable soil and lateral spreading.
2. Desktop review mapped of geological and seismic hazards in the general project area including the potential for liquefaction, lateral spreading, and qualitative estimated seismically induced settlement.
3. Develop initial conceptual model of geotechnical constraints geological hazards and approximate depth to groundwater.

2 Morro Bay

2.1 Site Location

The project is located at Morro Bay in San Luis Obispo County, CA. The approximate coordinates of the site are presented below, and these coordinates were used for the desk study in this report.

- Latitude: 35.37134°
- Longitude: -120.85802°

2.2 Geological Hazards

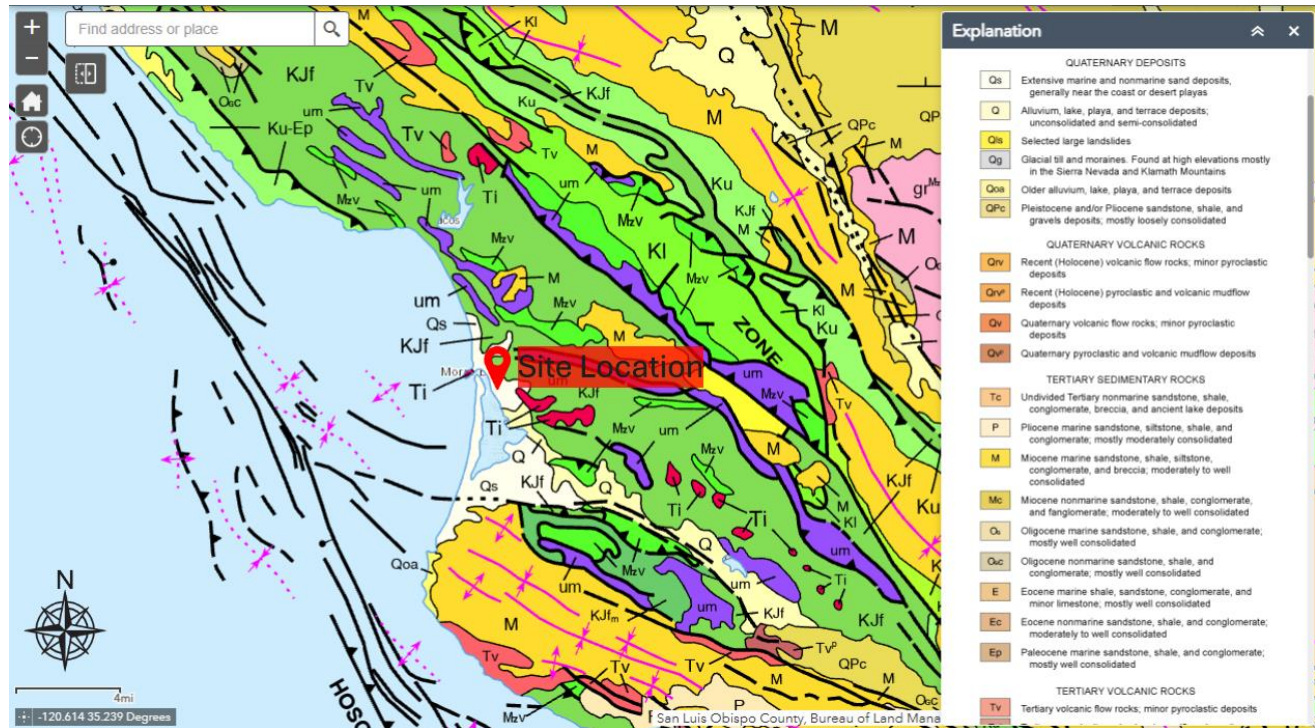
2.2.1 Preliminary Subsurface Conditions

The Morro Bay site has Quaternary deposits Qs as shown in Figure 2.1. The geological unit Qs indicates extensive marine and nonmarine sand deposits generally near the coast or desert playas. This is consistent with the coastal and marine environment. Quaternary deposits are anticipated to be underlain by tertiary aged intrusive igneous rocks that outcrop near to the site.

According to Geo Hazard and Resources report by City of Morro Bay, depth to bedrock (geologic unit Kf – interbedded sandstone and shale) is approximately 70 ft below ground surface which was observed from multiple boreholes in the vicinity of the site. Although the placement of dredge material in the nearshore of Morro Bay can create local turbidity impacts during discharge operations, the material placed would consist of

beach-compatible sand, which is expected to be free of contaminants and settle out of the water quickly (USACE, 2013). According to USACE (2013) no sources with high-level of contaminants were found around the site.

Figure 2.1: Geologic Map of Morro Bay Site



Source: California Department of Conservation Online Tool (<https://maps.conservation.ca.gov/cgs/gmcl/>)

2.2.2 Indicative Engineering Soil Properties

To obtain preliminary indications of the potential engineering soil properties at the desk study phase, an online tool (Web Soil Survey, United States Department of Agriculture, Natural Resources Conservation Service) was utilized. Table 2.1 summarizes soil properties and classifications indicated by this tool. This suggests the majority of site comprises sandy material which is likely to be saturated due to the proximity of the site to the coast. Properties such as liquid limit and plasticity index are not available for this area. However, the surrounding area in the vicinity of the site generally has non-plastic soil due to the coastal marine environment.

These values should be taken as indicative only, and field investigations would be required to confirm site conditions, materials and properties, and support future assessment.

Table 2.1: Indicative Engineering Soil Properties

Parameter	Percent Clay	Percent Silt	Percent Sand	Water Content (%)	Unified Soil Classification
Estimated value	2.5	1.5	96	2.2	SM

2.2.3 Indicative Seismic and Liquefaction Considerations

Assuming Site Class D and Risk Category III, the ASCE Hazard Tool was used to estimate preliminary seismic design parameters for the site (Table 2.2). Site Class D is usually considered as default site class when no geotechnical data is available at the site. Risk Category III is referring to the buildings and other structures, the failure of which could pose a substantial risk to human life. Site class and risk category should be revisited and reevaluated if this site progresses for further consideration.

Table 2.2: Indicative Seismic Design Parameters (Morro Bay)

Parameter	S_s (g)	S_1 (g)	S_{MS} (g)	S_{M1} (g)	S_{DS} (g)	S_{D1} (g)	T_L (s)	PGA_M (g)	V_{S30} (m/s)	Seismic Design Category
Estimated value	1.09	0.36	1.36	0.91	0.9	0.6	8	0.52	260	D

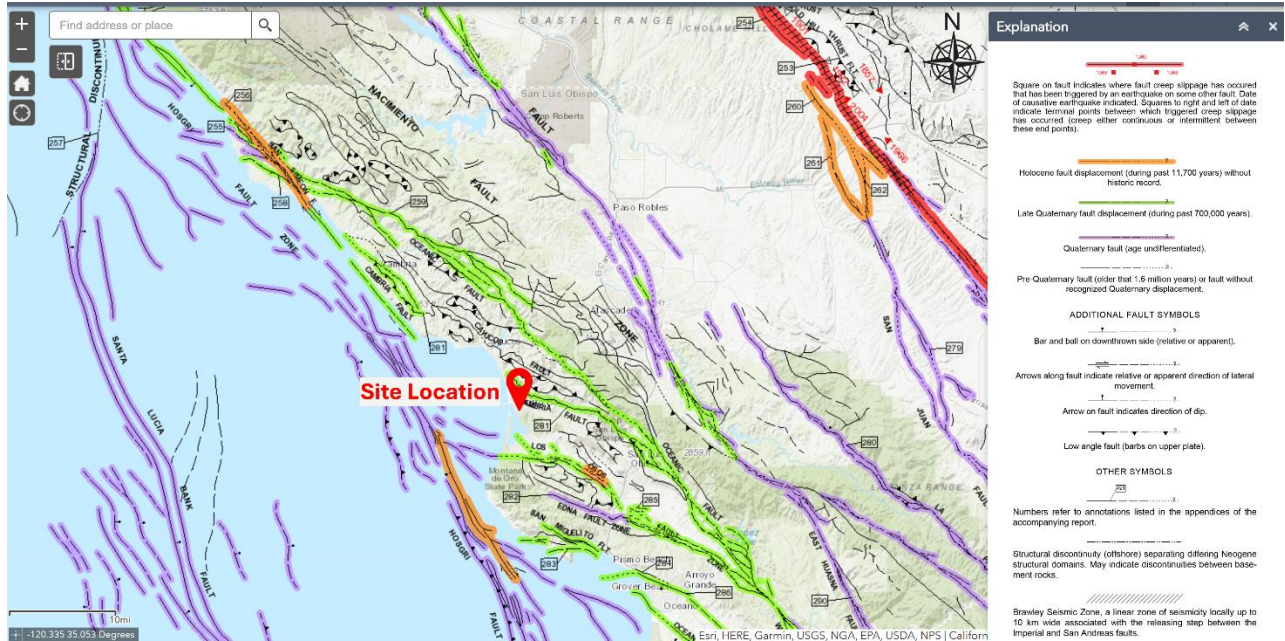
Note: Where values of the multi-period 5%-damped MCE_R response spectrum are not available from the USGS Seismic Design Geodatabase, the design response spectrum shall be permitted to be determined in accordance with Section 11.4.5.2 of ASCE 7-22 per the ASCE Hazard Tool.

Considering the high seismicity level and the sandy nature of the site, it is important to conduct a liquefaction assessment for the site. Liquefaction can potentially cause foundation settlement and lateral spreading which affects the performance of the structures and port facility. Additional site-specific geotechnical data such as obtaining shear wave velocity of top 100 ft or 30 m (V_{S30}) and standard penetration testing can provide more information about the liquefaction potential and the potential associated risks.

2.2.4 Faults and Historical Earthquakes

According to US Geological Survey Quaternary Faults online tool, the site is in a seismically active region with multiple faults present in the region (Figure 2.2). As a result, many earthquakes have been recorded in the region (Figure 2.3). It is therefore important that for future design stages the seismic hazard is considered and probabilistic and deterministic seismic hazard analyses are undertaken to quantify the risk.

Figure 2.2: Fault Map (Morro Bay)



Source: California Department of Conservation Online Tool (<https://maps.conservation.ca.gov/cgs/fam/app/>)

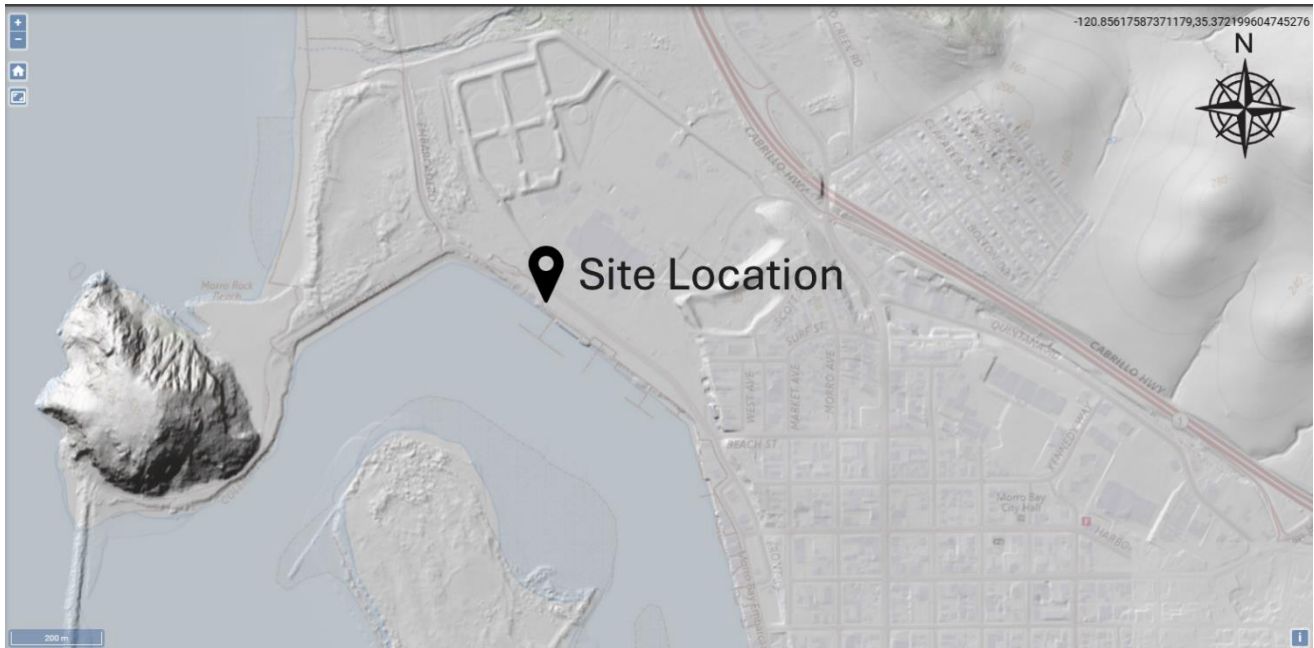
Figure 2.3: Historical Earthquakes Around Central Coast, CA



Source: California Department of Conservation Online Tool (<https://maps.conservation.ca.gov/cgs/historicearthquakes/>)

2.2.5 Lateral Spreading and Landslide Susceptibility

Based on the available LiDAR mapping (Figure 2.4) of the site, the ground surface is relatively flat indicating low probability of landslide risks at the proposed site location. However, considering the findings of Sections 2.2.2 and 2.2.3, there is a potential for liquefaction-induced lateral spreading which can potentially result in damage to any future port facilities.

Figure 2.4: LiDAR Map (Morro Bay)

Source: USGS Lidar Explorer Map (<https://apps.nationalmap.gov/lidar-explorer/#/>)

3 Summary

This report presents a preliminary geotechnical desk study of the Morro Bay site as one of two potential locations for developing an offshore wind operations and maintenance (O&M) facility. This initial review of publicly available data includes preliminary subsurface condition and geological setting, indicative engineering soil properties, and seismic and liquefaction considerations, along with records of faults and historical earthquakes and lateral spreading and landslide susceptibility.

Based on the available data reviewed in the preceding sections, no significant/unusual geotechnical risk has been identified beyond those typical of any coastal zone in the region. It is anticipated that any port/pier/jetty would require piled foundations into underlying competent material below the seabed. Supporting facilities on the coast are likely to comprise a combination of piled and shallow foundations, pending the outcome of investigations and seismic studies, and confirmation of anticipated structural loadings.

Should the Morro Bay site be selected for further study, further geotechnical investigations will be required to assess the site condition and the potential geotechnical risks.

4 References

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AGENDA NO: 8.b

MEETING DATE: April 28, 2026

Staff Report

TO: Honorable Mayor and City Council

DATE: April 22, 2026

FROM: Greg Kwolek, Public Works Director

SUBJECT: Approve a Professional Services Agreement with Cannon Corporation for Design of Phase 1 and Environmental Permitting for all Phases of the North Morro Bay Water Improvements Project

RECOMMENDED ACTION

Approve and authorize the City Manager to execute a professional services agreement with Cannon Corporation to provide design and engineering services during construction for Phase 1 of the North Morro Bay Water Improvements Project (Project), and environmental review and permitting for all phases of the Project, in an amount not-to-exceed \$525,492.00, and authorize the City Manager to execute amendments if necessary not to exceed \$52,549.00 for contingencies.

ALTERNATIVES

The City Council may:

1. Choose not to approve the professional services agreement with Cannon Corporation; or
2. Provide other direction to staff.

PROJECT SUMMARY

In 2017, the City initiated the OneWater Morro Bay Plan to comprehensively evaluate water, wastewater, and stormwater systems and identify long-term infrastructure needs. Hydraulic modeling and fire flow analysis identified the following water system concerns related to the Nutmeg and Upper Kings Pressure Zones:

- Deficient water pressures and fire flow capacity
- A concentration of underperforming hydrants in North Morro Bay
- System-wide deficiencies related to storage, conveyance, and pressure management

To address these concerns, the OneWater Plan recommended a series of improvements including:

- Replacement of the Nutmeg tank with a new larger pre-stressed concrete tank
- Removal of the Elena tanks
- Booster pump upgrades
- Pipeline improvements to eliminate reliance on the Vashon Booster Pump Station

By 2022, City staff prepared a high-level estimate indicating that the Nutmeg project, inclusive of the abovementioned improvements, could cost over \$19 million. Additionally, a tank replacement project presented constructability constraints. Access to the project site is constrained by steep terrain. Also, the site is in close proximity to residential development, and construction would involve challenges with staging and traffic. Further, the City does not have property control of the site because it is privately owned and leased to the City.

Prepared By: ME/NS

Dept Review: GK

City Manager Review: JC

City Attorney Review: BS

In light of this, City staff engaged Cannon to develop project alternatives that would address water system deficiencies while saving costs and avoiding a tank replacement at the Nutmeg Tank site. In response to the cost and constructability challenges associated with replacing the Nutmeg tank, the City completed an alternatives analysis in 2024 to identify more cost-effective and implementable solutions. The analysis determined that the original project objectives of improving water pressure and fire flow could be achieved through a combination of several discreet individual system-wide improvements, including:

- Strategic pipeline upsizing and interconnections
- Pressure zone modifications and PRV installations
- Optimization of existing storage within the Kings tank system
- Several urgent system improvements and upgrades

These improvements are being implemented as a phased program now called the North Morro Bay Water Improvements Project (Project), since the project no longer involves replacement of the Nutmeg tank. This approach achieves the same functional goals as a new storage tank (adequate fire flow, system reliability, and pressure stability) but avoids the significant challenges associated with constructing a tank at the Nutmeg site.

This first phase of the Project, estimated to begin construction in 2027, addresses immediate concerns with existing infrastructure and lays the foundation for future phases of improvements. Due to the broad scope of these improvements across north Morro Bay, a phased construction approach is suggested as listed below:

- 1.1 Close off and demo Elena Tanks
- 1.2 Design and install skid mounted booster to Nutmeg Zone, including future fire pump
- 1.3 Replace pump at Vashon Booster Station
- 1.4 Increase hydraulic grade line (HGL) at Errol pressure reducing valve (PRV), Sunset PRV, and Desal PRV to 220' HGL
- 1.5 Increase the Errol PRV to 8"
- 1.6 Replace the Errol Street pipeline with 8" pipe, upstream of PRV
- 1.7 Connect Elena and Blanca zones at Sequoia and Main Streets for fire flow
- 1.8 Install check valve (PRV) from Blanca to Elena (set higher)
- 1.9 Install check valve (PRV) from Elena to Blanca (set lower)
- 1.10 Provide SCADA controls/signal for all improvements
- 1.11 Install 25' of new 12" pipe at Elena and Alder Streets
- 1.12 Investigate rehabilitation of existing Nutmeg Tank in service
- 1.13 Install new 6" water main on Laurel Ave from Cuesta Ave to Laurel northern dead end

Subsequent phases 2-4 consist of pipeline, pump and tank upgrades to improve system flow and pressure. Staff plans to bring later phases of the project to the Public Works Advisory Board for review and input.

DISCUSSION

On December 16, 2025, City staff published a Request for Proposals for design and engineering services during construction specific to the first phase of improvements, and environmental review for all phases of the Project. Two responsive proposals were received and were evaluated by a Staff panel, following which oral interviews were conducted. Cannon Corporation was found to be the most qualified and was selected by staff. The cost proposal was then opened and reviewed by staff, and subsequently negotiated the terms, scope of fee of the proposed agreement to meet the project goals, within the available budget and meeting project timelines.

FISCAL IMPACT

No new funding is requested for this agreement. Funding for design of Phase 1 of the North Morro

Bay Water Improvements Project is already included in the City's adopted capital improvement budget, with the specific account for the Project currently holding a fund balance of \$5,043,000.

The Project was incorporated into the City's water rate structure and capital planning efforts over two rate cycles, including the 2015 rate increases and subsequent rate adjustments, which anticipated funding for major water system improvements, including the Nutmeg Tank replacement and related infrastructure improvements.

ATTACHMENT

1. Professional Services Agreement with Cannon Corporation

**AGREEMENT FOR SERVICES
BETWEEN CITY OF MORRO BAY AND
CANNON CORPORATION**

THIS AGREEMENT FOR SERVICES (“**Agreement**”) is made and entered into this 29th day of April, 2026 by and between CITY OF MORRO BAY, a California municipal corporation (“**City**”) and CANNON CORPORATION, a California Corporation (“**Consultant**”). City and Consultant may be referred to individually as “**Party**” or collectively as “**Parties**.” In consideration of the mutual promises and covenants made by the Parties and contained herein and other consideration, the value and adequacy of which are hereby acknowledged, the Parties agree as follows:

ARTICLE 1. SERVICES OF CONSULTANT

1.1 Scope of Services. In compliance with all terms and conditions of this Agreement, Consultant shall provide those services specified in the “Scope of Services” attached hereto as Exhibit A and incorporated herein by this reference, which may be referred to herein as the “**services**” or “**work**” hereunder. As a material inducement to City entering into this Agreement, Consultant represents and warrants: a) all services set forth in the Scope of Services will be performed in a competent and satisfactory manner; b) all materials used for services will be both of good quality as well as fit for the purpose intended; and, c) Consultant shall follow the highest professional standards and practices in performing the services required hereunder.

1.2 Consultant’s Proposal. The Scope of Services shall include the scope of services or work included in Consultant’s proposal or bid, which shall be incorporated herein by this reference as though fully set forth herein. In the event of any inconsistency between the terms of such proposal or bid, and this Agreement, the terms of this Agreement shall govern. No other terms and conditions from Consultant’s proposal or bid, other than description of scope of services or work, shall apply to this Agreement, unless specifically agreed to by City in writing.

1.3 Compliance with Law. All services rendered hereunder shall be provided in accordance with all ordinances, resolutions, statutes, rules and regulations of City and any federal, State or local governmental agency having jurisdiction in effect at the time services are rendered. City, and its officers, employees and agents, shall not be liable at law or in equity for failure of Consultant to comply with this Section.

1.4 Licenses, Permits, Fees and Assessments. Consultant shall obtain at its sole cost and expense such licenses, permits and approvals as may be required by law for the performance of the services required by this Agreement. Consultant shall have the sole obligation to pay for any fees, assessments and taxes, plus applicable penalties and interest, which may be imposed by law and arise from or are necessary for Consultant’s performance of the services required by this Agreement, and shall indemnify, defend and hold harmless City against any such fees, assessments, taxes, penalties or interest levied, assessed or imposed against City hereunder.

1.5 Additional Services and Compensation. City shall have the right at any time during the performance of the services, without invalidating this Agreement, to order extra work beyond that specified in the Scope of Services or make changes to the work by altering, adding to

or deducting from said work. No such extra work may be undertaken unless a written order, consistent with both Section 9.4 as well as Morro Bay Municipal Code (“**MBMC**”) section 3.08.060 (and as amended), is first given by City to Consultant, incorporating therein any adjustment in the Contract Sum for the actual costs of the extra work and/or the time to perform this Agreement, which said adjustments are subject to the written approval of Consultant. It is expressly understood by Consultant that the provisions of this Section shall not apply to services specifically set forth in the Scope of Services or reasonably contemplated therein. Consultant hereby acknowledges that it accepts the risk that the services to be provided pursuant to the Scope of Services may be more costly or time consuming than Consultant anticipates and that Consultant shall not be entitled to additional compensation therefor. City may in its sole and absolute discretion have similar work done by other consultants.

1.6 Familiarity with Work. By executing this Agreement, Consultant represents and warrants Consultant: a) has thoroughly investigated and considered services to be performed, b) has carefully considered how services should be performed, and c) fully understands the facilities, difficulties and restrictions attending performance of services under this Agreement.

1.7 Software and Computer Services. If the Scope of Services includes the provision and/or installation of any software, computer system, or other computer technology, Consultant represents and warrants that it is familiar with and/or has inspected City’s current infrastructure, equipment, computer system and software and that the software, computer system, or other computer technology provided and/or installed by Consultant under this Agreement is compatible, and shall be fully functional, with such infrastructure, equipment, computer system and software of City. Consultant acknowledges that City is relying on this representation by Consultant as a material consideration in entering into this Agreement.

1.8 Prevailing Wages. If services include any “public work” or “maintenance work,” as those terms are defined in California Labor Code section 1720 *et seq.* and California Code of Regulations, Title 8, section 16000 *et seq.*, and if the total compensation is \$1,000 or more, Consultant shall pay prevailing wages for such work and comply with the requirements in California Labor Code section 1770 *et seq.* and 1810 *et seq.*, and all other applicable laws.

1.9 Special Requirements. Additional terms and conditions of this Agreement, if any, which are made a part hereof are set forth in the “Special Requirements” attached hereto as Exhibit B and incorporated herein by this reference. In the event of a conflict between the provisions of Exhibit B and any other provisions of this Agreement, the provisions of Exhibit B shall govern.

ARTICLE 2. COMPENSATION AND METHOD OF PAYMENT

2.1 Contract Sum. Subject to any limitations set forth in this Agreement, City agrees to pay Consultant the amounts specified in the “Schedule of Compensation” attached hereto as **Exhibit C** and incorporated herein by this reference. The total compensation, including reimbursement for actual expenses, shall not exceed Five Hundred Twenty-Five Thousand Four Hundred and Ninety-Two Dollars (\$525,492.00) (“**Contract Sum**”), unless additional compensation is approved pursuant to Section 1.5. Compensation may include reimbursement, for actual and necessary expenditures, if both specified in the Schedule of Compensation, as well as approved by City in advance. The Contract Sum shall include the attendance of Consultant at all

project meetings reasonably deemed necessary by City. Consultant agrees that if Consultant becomes aware of any facts, circumstances, techniques, or events that may or will materially increase or decrease the cost of the work or services, Consultant shall promptly notify the Contract Officer of said fact, circumstance, technique or event and the estimated increased or decreased cost related thereto.

2.2 Invoices. Unless some other method of payment is specified in Exhibit C, Schedule of Compensation, in any month in which Consultant wishes to receive payment, no later than the first business day of such month, Consultant shall submit to City, in a form approved by City's Finance Director, an invoice for services rendered prior to the date of the invoice. By submitting an invoice for payment under this Agreement, Consultant is certifying compliance with all provisions of this Agreement. Except as provided in Sections 7.3, 7.4 and 7.5, City shall pay Consultant for all expenses stated thereon which are approved by City pursuant to this Agreement generally within thirty (30) days, and City will use its best efforts to make payment no later than forty-five (45) days, from the submission of an invoice in an approved form. In the event any charges or expenses are disputed by City, the original invoice shall be returned by City to Consultant for correction and resubmission. Review and payment by City for any invoice provided by Consultant shall not constitute a waiver of any rights or remedies provided herein or any applicable law. Each invoice is to include (unless otherwise specified by City): 1) line items for all personnel describing the work performed, the number of hours worked, and the hourly rate; 2) line items for all materials and equipment properly charged to the Services; 3) line items for all other approved reimbursable expenses claimed, with supporting documentation; and 4) line items for all approved subcontractor labor, supplies, equipment, materials, and travel properly charged to the Services.

ARTICLE 3. PERFORMANCE SCHEDULE

3.1 Time of Essence. Time is of the essence in the performance of this Agreement.

3.2 Term. Unless earlier terminated in accordance with Article 7 of this Agreement, this Agreement shall continue in full force and effect until completion of the services, which shall be no later than December 31, 2027.

3.3 Schedule of Performance. Consultant shall commence the services pursuant to this Agreement upon receipt of a written notice to proceed and shall perform all services within the time period(s) established in the "Schedule of Performance" attached hereto as **Exhibit D** and incorporated herein by this reference.

3.4 Force Majeure. The time period(s) specified in the Schedule of Performance for performance of the services rendered pursuant to this Agreement shall be extended because of any delays due to unforeseeable causes beyond the control and without the fault or negligence of Consultant, including, but not restricted to, acts of God or of the public enemy, unusually severe weather, fires, earthquakes, floods, epidemics, quarantine restrictions, riots, strikes, freight embargoes, wars, litigation, and/or acts of any governmental agency, including City, if Consultant shall within ten (10) days of the commencement of such delay notify City in writing of the causes of the delay. City shall ascertain the facts and the extent of delay, and extend the time for performing the services for the period of the enforced delay when and if in the judgment of City

such delay is justified. City's determination shall be final and conclusive upon the Parties to this Agreement. In no event shall Consultant be entitled to recover damages against City for any delay in the performance of this Agreement, however caused, Consultant's sole remedy being extension of this Agreement pursuant to this Section.

ARTICLE 4. COORDINATION OF WORK

4.1 Representative of Consultant. The representative of Consultant is Larry Kraemer, who is authorized to act on Consultant's behalf with respect to the work or services specified herein and to make all decisions in connection therewith. It is expressly understood that the experience, knowledge, capability and reputation of the representative was a substantial inducement for City to enter into this Agreement. Therefore, the representative shall be responsible during the term of this Agreement for directing all activities of Consultant and devoting sufficient time to personally supervise the services hereunder. For purposes of this Agreement, the representative may not be replaced nor may their responsibilities be substantially reduced by Consultant without the express written approval of City.

4.2 Contract Officer for City. The Contract Officer for City is Nate Stong (or such person as may be designated by the City Manager). The Contract Officer shall be the primary person on behalf of City responsible for the administration of the Agreement. It shall be Consultant's responsibility to assure that the Contract Officer is kept informed of both the progress of the performance of the services as well as any decisions which must be made by City.

4.3 Approvals from City. City approvals or actions, pursuant to the authority of this Agreement, are to be made (unless otherwise specified) either by the City Manager or by their delegate as provided for in writing.

4.4 Independent Contractor. Neither City, nor any of its officers, employees or agents, shall have any control over the manner or means by which Consultant, or its officers, employees, agents or subcontractors, perform the services required herein, except as otherwise set forth herein. Consultant shall perform all services required herein as an independent contractor of City and shall remain under only such obligations as are consistent with that role. Consultant shall not at any time or in any manner represent that it, or any of its officers, employees, agents or subcontractors, are officers, employees or agents of City. City shall not in any way or for any purpose become or be deemed to be a partner of Consultant in its business or otherwise or a joint venturer or a member of any joint enterprise with Consultant. Consultant shall not incur or have the power to incur any debt, obligation or liability whatever against City, or bind City in any manner. Consultant represents and warrants that the personnel used to provide services to City pursuant to this Agreement shall at all times be under Consultant's exclusive control and direction. No City employee benefits shall be available to Consultant, its officers, employees, agents or subcontractors, in connection with the performance of this Agreement. City shall not be liable for compensation or indemnification to Consultant, its officers, employees, agents or subcontractors, for injury or sickness arising out of performing services hereunder. In the event that Consultant or any officer, employee, agent, or subcontractor of Consultant providing services under this Agreement claims or is determined by a federal or state agency, a court of competent jurisdiction, or the California Public Employees' Retirement System, to be classified as other than an independent contractor for City, then Consultant shall indemnify, defend, and hold harmless City

for the payment of any and all assessed fines, penalties, judgments, employee and/or employer contributions, and any other damages and costs assessed to City as a consequence of, or in any way attributable to, the assertion that Consultant, or any officer, employee, agent, or subcontractor Consultant used to provide services under this Agreement, is/are employees of City.

4.5 Subcontracting or Assignment. The experience, knowledge, capability and reputation of Consultant, its principals and employees were a substantial inducement for City to enter into this Agreement. Therefore, without express written approval of City, Consultant shall not contract with any other entity to perform in whole or in part services required hereunder without express written approval of City, and neither this Agreement nor any interest herein may be transferred or assigned. No approved transfer shall release Consultant, or any surety or insured of Consultant, of any liability hereunder without express written consent of City.

ARTICLE 5. INSURANCE AND INDEMNIFICATION

5.1 Insurance Coverages. Prior to commencement of any services under this Agreement, and without limiting Consultant's indemnification obligation to City, Consultant shall procure and maintain, at its sole cost and expense, in a form and content satisfactory to City, for the duration of the Agreement, primary policies of insurance of the type and amounts below, issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance or is on the List of Approved Surplus Line Insurers in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VII (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by City, which shall cover all elected and appointed officers, employees and agents of City. City reserves the right at any time during the term of the Agreement to change the amounts and types of insurance required by giving Consultant ninety (90) days advance written notice of such change. If such change results in substantial additional cost to Consultant, City and Consultant may renegotiate Consultant's compensation.

(a) **Commercial General Liability Insurance.** A policy of commercial general liability insurance, with coverage at least as broad as Insurance Services Office ("ISO") form CG 00 01, written on a per occurrence basis for bodily injury, personal injury and property damage. Defense costs must be paid in addition to limits. Coverage for an additional insured shall not be limited to its vicarious liability. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted. Limits shall be no less than \$1,000,000 per occurrence for all covered losses and no less than \$2,000,000 general aggregate.

(b) **Worker's Compensation Insurance.** A policy of worker's compensation insurance in such amount as will fully comply with the laws of the State of California and which shall indemnify, insure and provide legal defense for Consultant against any loss, claim or damage arising from any injuries or occupational diseases occurring to any worker employed by or any persons retained by Consultant in the course of carrying out the work or services contemplated in this Agreement.

(c) **Automobile Liability.** A policy of comprehensive automobile liability insurance, at least as broad as ISO form CA 00 01, written on a per occurrence basis covering

bodily injury and property damage in an amount not less than \$1,000,000 combined single limit for each accident. Said policy shall include coverage for owned, non-owned, leased, hired cars and any automobile.

(d) **Professional Liability.** Professional liability insurance appropriate to Consultant's profession. This coverage may be written on a "claims made" basis and must include coverage for contractual liability. Any policy inception date, continuity date, or retroactive date must be before the effective date of this Agreement. The professional liability insurance required by this Agreement must be endorsed to be applicable to claims based upon, arising out of, or related to services performed under this Agreement. The insurance must be maintained for at least five (5) consecutive years following the completion of Consultant's services or the termination of this Agreement. During this additional 5-year period, Consultant shall annually and upon request of City submit written evidence of this continuous coverage. Limits shall be no less than \$1,000,000 per claim and no less than \$1,000,000 general aggregate.

(e) **Cyber Liability.** Cyber liability insurance appropriate to Consultant's profession and the services hereunder, written on a per occurrence basis, with limits not less than \$1,000,000 per occurrence/loss, and \$2,000,000 in the aggregate. Coverage shall be sufficiently broad to respond to the duties and obligations undertaken by Consultant pursuant to this Agreement and shall include, but not be limited to, claims involving: infringement of intellectual property; copyright; trademark; invasion of privacy violations; data breach; electronic information theft, loss, damage, destruction, alteration or misuse; release of private information; extortion; and, network security. The policy shall provide coverage for breach response costs, regulatory fines and penalties, and credit monitoring expenses, with limits sufficient to respond to these obligations.

(f) **Excess Liability Insurance.** Excess liability insurance may be used to satisfy the obligations herein. If excess liability insurance is used then the policy shall meet all the requirements herein and be at least as broad as the primary coverages set forth herein. Such policy shall: 1) include a drop down feature requiring the policy to respond if primary insurance that would otherwise have applied proves to be uncollectible in whole or in part for any reason; 2) be payable on behalf of wording as opposed to reimbursement; 3) have concurrency of effective dates with primary policies; 4) "follow form" to the underlying primary policies; and, 5) provide insureds, under primary policies required herein, shall be insureds under the excess liability policy.

(g) **Subcontractors.** In the event Consultant subcontracts any portion of the work in compliance with Section 4.5 of this Agreement, Consultant shall either: 1) include each subcontractor as insureds under its policies of insurance required herein; or, 2) Consultant shall furnish to City all documentation, required in Article 5 for Consultant, for each subcontractor. All coverages for subcontractors shall include all of the requirements stated herein.

5.2 General Insurance Requirements.

(a) **Proof of Insurance, Enforcement and Notice.** No work or services under this Agreement shall commence until both Consultant has provided City with insurance certificates, endorsement forms and appropriate insurance binders evidencing the above insurance coverages, as well as said documentation is approved by City. City reserves the right to inspect

complete, certified copies of, and endorsements to, all required insurance policies, at any time. Any failure to comply with the reporting or other provisions of the policies including breaches or warranties shall not affect coverage provided to City. In the event any insurance policy required under this Agreement is cancelled or amended (and the insurance policy is not replaced pursuant to subsection (b) below), or does not comply with Article 5, then: 1) City has the right but not the duty to obtain insurance required herein and any premium paid by City will be promptly reimbursed by Consultant or City will withhold amounts sufficient to pay premium from Consultant payments; or, 2) City, notwithstanding any other provisions of this Agreement, may immediately terminate this Agreement. Consultant shall give City prompt and timely notice of claims made or suits instituted that arise out of or result from Consultant's performance under this Agreement, and that involve or may involve coverage under any of the required insurance policies.

(b) **Cancellation/Amendment.** All of herein required policies of insurance shall provide the insurance may not be amended or cancelled by insurer or any Party hereto without providing thirty (30) calendar days prior written notice (with exception of ten (10) calendar days prior written notice for nonpayment) to City. In the event any of said policies of insurance are amended or cancelled, Consultant shall, five (5) business days prior to the cancellation date, submit new evidence of insurance in conformance with this Agreement to City.

(c) **Additional Insureds.** The commercial general liability policy provided for in Section 5.1(a) and the automobile liability policy provided for in Section 5.1(c) both shall name City and its elected and appointed officers, employees and agents ("**City Parties**") as additional insureds and such coverage shall contain no special limitations on the scope of protection afforded to City and City Parties. A severability of interests provision must apply for all additional insureds ensuring that Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability, and policies of insurance shall not contain any cross-liability exclusions.

(d) **Primary, Subrogation, Contribution and Coverage.** All of the above policies of insurance shall be primary insurance. The insurers for above policies, Consultant and any subcontractors are all deemed hereof to waive all rights of subrogation and contribution they may have against City or City Parties, and their respective insurers, and all insurance policies required herein shall be endorsed to waive such rights. Any insurance maintained by City or City Parties will apply in excess of, and not contribute with, Consultant's insurance. If Consultant maintains broader coverage and/or higher limits than the minimum amounts provided herein, City requires and shall be entitled to the broader coverage and/or higher limits maintained by Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to City and City Parties. None of the coverages required herein will be in compliance with this Agreement if they include any limiting endorsement of any kind that has not been first submitted to City and approved of in writing. Requirements of specific coverage features or limits contained herein are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any Party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type.

(e) **Limitations, Self- Insured Retention and Deductibles.** Consultant agrees

that requirements of Article 5 shall not be construed as limiting in any way the extent to which Consultant may be held responsible for the payment of damages to any persons or property resulting from Consultant's activities or the activities of any person or persons for which Consultant is otherwise responsible nor shall it limit Consultant's indemnification liabilities as provided in Section 5.3. All insurance policies must specify that where the primary insured does not satisfy any self-insured retention, any additional insured may satisfy the self-insured retention. Any deductibles or self-insured retentions must be declared to and approved by City. At City's option, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects City and City Parties, or Consultant shall procure a bond guaranteeing payment of losses and related investigations, claim administration, attorney's fees, defense expenses and claims.

5.3 Indemnification.

(a) **General Obligations.** Consultant agrees, to the full extent permitted by law, to indemnify, defend and hold harmless City and its elected and appointed officers, employees and agents (each an "**Indemnitee**" and collectively, "**Indemnitees**") against, and will hold and save them and each of them harmless from, whether actual or threatened, any and all actions, either judicial, administrative, arbitration or regulatory claims, damages to persons or property, losses, costs, penalties, obligations, errors, omissions or liabilities (herein "**Claims or Liabilities**") that may be asserted or claimed by any person, firm or entity arising out of or in connection with the negligent performance of the work, operations or activities provided herein of Consultant, its officers, employees, agents, subcontractors, or invitees, or any individual or entity for which Consultant is legally liable (each an "**Indemnitor**" and collectively, "**Indemnitors**"), or arising from Indemnitors' reckless or willful misconduct, or arising from Indemnitors' negligent performance of or failure to perform any term, provision, covenant or condition of this Agreement, and in connection therewith: 1) Consultant will defend any action or actions filed or threatened in connection with any such Claims or Liabilities, or at option of Indemnitee(s) will reimburse and pay for all costs and expenses, including legal costs and attorneys' fees, incurred by Indemnitee(s) in connection therewith; and, 2) Consultant will promptly pay any judgment rendered against Indemnitee(s) for any such Claims or Liabilities, and will save and hold Indemnitee(s) harmless therefrom.

(b) **Further Provisions.** The indemnity obligation herein shall be binding on successors, assigns and heirs of Consultant and shall survive termination of this Agreement. Consultant shall incorporate similar indemnity agreements as provided herein with its subcontractors, and if Consultant fails to do so Consultant shall be fully responsible to indemnify City hereunder therefor. Failure of City and/or City Parties (collectively "City" for solely this Section 5.3(b)) to monitor compliance with any of the indemnification provisions herein shall not be a waiver hereof. The indemnification provisions herein do not apply to claims or liabilities occurring as a result of City's sole negligence or willful misconduct, but, to the fullest extent permitted by law, shall apply to claims and liabilities resulting in part from City's negligence, except that design professionals' indemnity hereunder shall be limited to claims and liabilities arising out of the negligence, recklessness or willful misconduct of the design professional. The indemnification provided herein includes Claims or Liabilities arising from any negligent or wrongful act, error or omission, or reckless or willful misconduct of Indemnitors in the performance of professional services hereunder. Payment of invoices by City is not a condition precedent to enforcement of the indemnity obligation herein. In the event of any dispute between

Consultant and City, as to whether liability arises from the sole negligence or willful misconduct of City, Consultant will be obligated to pay for City's defense until such time as a final judgment has been entered adjudicating City as solely negligent or responsible for willful misconduct. Consultant will not be entitled in the absence of such a determination to any reimbursement of defense costs including but not limited to attorney's fees, expert fees and costs of litigation.

(c) **Professional Liability.** When the law establishes a professional standard of care for Consultant's services, to the fullest extent permitted by law, Consultant shall indemnify, defend and hold harmless Indemnitees against, and will hold and save them and each of them harmless from, whether actual or threatened, any and all Claims and Liabilities, consistent with all obligations provided for in this Section 5.3, to the extent same are caused in whole or in part by any negligent or wrongful act, error or omission, or reckless or willful misconduct of Indemnitors in the performance of professional services under this Agreement.

ARTICLE 6. RECORDS, REPORTS AND RELEASE OF INFORMATION

6.1 Records. Consultant shall keep, and require subcontractors to keep, such ledgers, books of accounts, invoices, vouchers, canceled checks, reports, studies or other documents relating to the disbursements charged to City and services performed hereunder ("**books and records**") as shall be necessary to perform the services required by this Agreement and enable City to evaluate the performance of such services. Any and all such books and records shall be maintained in accordance with generally accepted accounting principles, shall be complete and detailed, and shall be readily accessible. City shall have full and free access to such books and records at all times during normal business hours of City, including the right to inspect, copy, audit and make records and transcripts. Such books and records shall be maintained for a period of three (3) years following completion of the services hereunder. City shall have access to such books and records in the event any audit is required. Consultant shall fully cooperate with City in providing access to any and all Consultant records and documents if a public records request is made and disclosure is required by law including but not limited to the California Public Records Act.

6.2 Ownership of Documents. All drawings, specifications, maps, designs, photographs, studies, surveys, data, notes, computer files, reports, records, documents and other materials ("**documents and materials**") prepared by Consultant, its officers, employees, agents and subcontractors in the performance of this Agreement shall be the property of City and shall be delivered to City upon request of City and/or upon the termination of this Agreement, and Consultant shall have no claim for further employment or additional compensation as a result of the exercise by City of its full rights of ownership, use, reuse, or assignment of the documents and materials hereunder. Consultant may retain copies of such documents and materials for its own use. Consultant shall have the right to use the concepts embodied therein. All subcontractors shall provide for assignment to City of any documents and materials prepared by them, and in the event Consultant fails to secure such assignment, Consultant shall indemnify City for all damages resulting therefrom. Moreover, with respect to any Consultant documents and materials that may qualify as "works made for hire" as defined in 17 U.S.C. § 101, such documents and materials are hereby deemed "works made for hire" for City.

6.3 Confidentiality and Release of Information. All information gained or work product produced by Consultant in its performance of this Agreement shall be considered

confidential, unless such information is in the public domain or already known to Consultant. Consultant shall not release or disclose any such information or work product to persons or entities other than City without prior written authorization from City. Consultant, its officers, employees, agents or subcontractors, shall not, without prior written authorization from City or unless requested by the City Attorney, voluntarily provide documents, declarations, letters of support, testimony at depositions, response to interrogatories or other information concerning the work performed under this Agreement. Response to a subpoena or court order shall not be considered “voluntary” provided Consultant immediately gives City notice of such court order or subpoena. If Consultant, or any officer, employee, agent or subcontractor of Consultant, provides any information or work product in violation of this Agreement, then City shall have the right to reimbursement and indemnity from Consultant for any damages, costs and fees, including attorney’s fees, caused by or incurred as a result of Consultant’s conduct. As concerning, regarding or related to, in any way, this Agreement and the work performed thereunder: a) Consultant shall immediately notify City should Consultant, its officers, employees, agents or subcontractors be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions or other discovery request, court order or subpoena from any party; b) City retains the right, but has no obligation, to represent Consultant or be present at any deposition, hearing or similar proceeding; and, c) Consultant agrees to cooperate fully with City and to provide City with the opportunity to review any response to discovery requests provided by Consultant, however, this right to review any such response does not imply or mean the right by City to control, direct, or rewrite said response.

ARTICLE 7. ENFORCEMENT OF AGREEMENT AND TERMINATION

7.1 California Law. This Agreement shall be interpreted, construed and governed both as to validity and to performance of the Parties in accordance with the laws of the State of California. Legal actions concerning any dispute, claim or matter arising out of or in relation to this Agreement shall be instituted in the Superior Court of the County of San Luis Obispo, State of California, or any other appropriate court in such county, and Consultant agrees to submit to the personal jurisdiction of such court in the event of such action. In the event of litigation in a U.S. District Court, venue shall lie exclusively in the Central District of California, in the County of San Luis Obispo, State of California.

7.2 Suspension, or Termination, Prior to Expiration of Term. This Section shall govern any termination of this Agreement except as specifically provided in Section 7.4 for termination for cause. City reserves the right to terminate or suspend this Agreement, or any portion hereof, at any time, for any reason, with or without cause, upon ten (10) days’ notice to Consultant, except that where termination or suspension is due to the fault of Consultant, the period of notice may be such shorter time as determined by City. Upon receipt of any notice of termination or suspension, Consultant shall immediately cease all services hereunder, unless the notice provides otherwise, or except such as specifically approved by City. Upon submittal of an invoice consistent with Section 2.2, Consultant shall be entitled to compensation for all services rendered prior to the effective date of the notice of termination or suspension and for any services authorized by City thereafter in accordance with the Schedule of Compensation, or such as may be approved

by City, except as provided in Section 7.5. In event of termination, or suspension, without cause pursuant to this Section, there is no need to provide opportunity to cure pursuant to Section 7.3.

7.3 Default of Consultant and Opportunity to Cure. In the event that Consultant is in default under the terms of this Agreement, City shall not have any obligation or duty to continue compensating Consultant for any work performed after the date of default. Instead, City may give notice to Consultant of the default and the reasons for the default. The notice shall include the timeframe in which Consultant may cure the default. This timeframe is presumptively ten (10) days, but may be extended, or reduced, if circumstances warrant, as determined by City. During the period of time that Consultant is in default, City shall hold all invoices and shall, when the default is cured, proceed with payment on the invoices, without liability for interest. In the alternative, City may, in its sole discretion, elect to pay some or all of the outstanding invoices during the period of default. If Consultant does not cure the default by conclusion of noticed timeframe, City may immediately both terminate this Agreement with notice to Consultant as well as pursue the remedy in Section 7.4, without prejudice to any other remedy to which City may be entitled at law, in equity or under this Agreement. Any failure on the part of City to give notice of Consultant's default shall not be deemed to result in a waiver of City's legal rights or any rights arising out of any provision of this Agreement.

7.4 Termination for Default of Consultant. If termination is due to the failure of Consultant to fulfill its obligations under this Agreement, City may, after compliance with the provisions of Section 7.3, take over the work and prosecute the same to completion by contract or otherwise, and Consultant shall be liable to the extent that the total cost for completion of the services required hereunder exceeds the compensation herein stipulated (provided that City shall use reasonable efforts to mitigate such damages), and City may withhold any payments to Consultant for the purpose of set-off or partial payment of the amounts owed City therefor.

7.5 Retention of Funds. Consultant hereby authorizes City to deduct from any amount payable to Consultant (whether or not arising out of this Agreement) (i) any amounts the payment of which may be in dispute hereunder or which are necessary to compensate City for any losses, costs, liabilities, or damages suffered by City, and (ii) all amounts for which City may be liable to third parties, by reason of Consultant's acts or omissions in performing or failing to perform Consultant's obligation under this Agreement. In the event that any claim is made by a third party, the amount or validity of which is disputed by Consultant, or any indebtedness shall exist which shall appear to be the basis for a claim of lien, City may withhold from any payment due, without liability for interest because of such withholding, an amount sufficient to cover such claim. The failure of City to exercise such right to deduct or to withhold shall not, however, affect the obligations of Consultant to insure, indemnify, and protect City as elsewhere provided herein.

7.6 Waiver. Waiver by any Party to this Agreement of any term, condition, or covenant of this Agreement shall not constitute a waiver of any other term, condition, or covenant. Waiver by any Party of any breach of the provisions of this Agreement shall not constitute a waiver of any other provision or a waiver of any subsequent breach or violation of any provision of this Agreement. Acceptance by City of any work or services by Consultant shall not constitute a waiver of any of the provisions of this Agreement. No delay or omission in the exercise of any right or remedy by a non-defaulting Party on any default shall impair such right or remedy or be construed as a waiver. Any waiver by either Party of any default must be in writing and shall not be a waiver

of any other default concerning the same or any other provision of this Agreement. Consultant acknowledges and agrees that any actual or alleged failure on the part of City to inform Consultant of non-compliance with any requirement of this Agreement imposes no additional obligations on City nor does it waive any rights hereunder. Payment to Consultant for work performed pursuant to this Agreement shall not be deemed to waive any defects in work performed by Consultant.

7.7 Rights and Remedies are Cumulative. Except with respect to rights and remedies expressly declared to be exclusive in this Agreement, the rights and remedies of the Parties are cumulative and the exercise by either Party of one or more of such rights or remedies shall not preclude the exercise by it, at the same or different times, of any other rights or remedies for the same default or any other default by the other Party.

7.8 Legal Action. In addition to any other rights or remedies, either Party may take legal action, in law or in equity, to cure, correct or remedy any default, to recover damages for any default, to compel specific performance of this Agreement, to obtain declaratory or injunctive relief, or to obtain any other remedy consistent with the purposes of this Agreement. Notwithstanding any contrary provision herein, Consultant shall file a statutory claim pursuant to Government Code sections 905 *et seq.* and 910 *et seq.*, in order to pursue a legal action under this Agreement.

7.9 Attorneys' Fees. If either Party to this Agreement is required to initiate or defend or made a party to any action or proceeding in any way connected with this Agreement, the prevailing party in such action or proceeding, in addition to any other relief which may be granted, whether legal or equitable, shall be entitled to reasonable attorneys' fees. Attorneys' fees shall include attorneys' fees on any appeal, and a Party entitled to attorneys' fees shall be entitled to all other reasonable costs for investigating such action, consultants' fees, taking depositions and discovery and all other necessary costs the court allows which are incurred in such litigation. Such fees and costs shall be enforceable whether or not such action is prosecuted to judgment.

ARTICLE 8. INDIVIDUAL LIABILITY, CONFLICTS AND NON-DISCRIMINATION

8.1 Non-liability of City Officers and Employees. No officer or employee of City shall be personally liable to Consultant, or any successor in interest, in the event of any default or breach by City or for any amount which may become due to Consultant or to its successor, or for breach of any obligation of the terms of this Agreement.

8.2 Conflict of Interest. Consultant covenants that neither it, nor any officer or principal of its firm, has or shall acquire any interest, directly or indirectly, which would conflict in any manner with the interests of City or which would in any way hinder Consultant's performance of services under this Agreement. Consultant further covenants that in the performance of this Agreement, no person having any such interest shall be employed by it as an officer, employee, agent or subcontractor without the express written consent of City. Consultant agrees to at all times avoid conflicts of interest or the appearance of any conflicts of interest with the interests of City in the performance of this Agreement. City, in its sole discretion, shall determine the existence of a conflict of interest and may terminate this Agreement in the event such a conflict of interest exists upon sending Consultant written notice describing the conflict. No officer or employee of City shall have any financial interest, direct or indirect, in this

Agreement nor shall any such officer or employee participate in any decision relating to this Agreement which affects their financial interest or the financial interest of any corporation, partnership or association in which they are, directly or indirectly, interested, in violation of any State statute or regulation. Consultant warrants that it has not paid or given and will not pay or give any third party any money or other consideration for obtaining this Agreement.

8.3 Covenant Against Discrimination. Consultant covenants that, by and for itself, its heirs, executors, assigns, and all persons claiming under or through them, that there shall be no discrimination against or segregation of, any person or group of persons on account of race, color, creed, religion, sex, gender, sexual orientation, marital status, national origin, ancestry or other protected class in the performance of this Agreement. Consultant shall take affirmative action to insure that applicants are employed and that employees are treated during employment without regard to their race, color, creed, religion, sex, gender, sexual orientation, marital status, national origin, ancestry or other protected class.

ARTICLE 9. MISCELLANEOUS PROVISIONS

9.1 Notices. Any notice or other communication either Party desires or is required to give to the other Party or any other person in regards to this Agreement must be in writing and may be given either by (i) personal service, (ii) delivery by a reputable document delivery service, such as but not limited to, Federal Express, which provides a receipt showing date and time of delivery, or (iii) mailing in the United States Mail, certified mail, postage prepaid, return receipt requested, in the case of City addressed to City Clerk at City of Morro Bay, 595 Harbor Street, Morro Bay, CA 93442, and in the case of Consultant, to the person(s) at the address designated on the execution page of this Agreement. Either Party may change its address by notifying the other Party of the change of address in writing. Notice shall be deemed communicated at the time personally delivered or in seventy-two (72) hours from the time of mailing if mailed as provided in this Section.

9.2 Interpretation. The terms of this Agreement shall be construed in accordance with the meaning of the language used and shall not be construed for or against either Party by reason of the authorship of this Agreement, headings used, or any other rule of construction which might otherwise apply.

9.3 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, and such counterparts shall constitute one and the same instrument.

9.4 Integration; Amendment. This Agreement including the attachments hereto is the entire, complete and exclusive expression of the understanding of the Parties as to the Agreement. It is understood that there are no oral agreements between the Parties hereto affecting this Agreement, and this Agreement supersedes and cancels any and all prior and contemporaneous negotiations, arrangements, agreements and understandings, if any, between the Parties, concerning this Agreement, and none shall be used to interpret this Agreement. No amendment to or modification of this Agreement shall be valid unless made in writing and approved by Consultant and (consistent with, as amended, Chapter 3.08 of the MBMC) by City.

9.5 Severability. Should a portion of this Agreement be declared invalid or unenforceable by a judgment or decree of a court of competent jurisdiction, such invalidity or unenforceability shall not affect any of the remaining portions of this Agreement which are hereby declared as severable and shall be interpreted to carry out the intent of the Parties unless the invalid provision is so material that its invalidity deprives either Party of the basic benefit of their bargain or renders this Agreement meaningless.

9.6 No Undue Influence. Consultant declares and warrants that no undue influence or pressure was used against or in concert with any officer or employee of City in connection with the award, terms or implementation of this Agreement, including any method of coercion, confidential financial arrangement, or financial inducement. No officer or employee of City has or will receive compensation, directly or indirectly, from Consultant, or from any officer, employee or agent of Consultant, in connection with the award of this Agreement or any work to be conducted as a result of this Agreement. Violation of this Section shall be a material breach of this Agreement entitling City to remedies in Section 7.4 and any and all remedies at law or equity.

9.7 Corporate Authority. The persons executing this Agreement on behalf of the Parties hereto warrant that (i) such Party is duly organized and existing, (ii) they are duly authorized to execute and deliver this Agreement on behalf of said Party, (iii) by so executing this Agreement, such Party is formally bound to the provisions of this Agreement, and (iv) entering into this Agreement does not violate any provision of any other agreement to which said Party is bound. This Agreement shall be binding upon the heirs, executors, administrators, successors and assigns of the Parties.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on the date and year first-above written.

CITY:

CITY OF MORRO BAY, a California municipal corporation

John Craig
City Manager

ATTEST:

Dana Swanson, City Clerk

APPROVED AS TO FORM:

Brian J. Stack, City Attorney

CONSULTANT:

Cannon Corporation, a California Corporation

By: _____
Michael Francis Cannon
President, Chief Executive Officer

By: _____
Lawrence P. Kraemer
Vice President and Secretary
1050 Southwood Dr.
San Luis Obispo, CA 93401

Two corporate officer signatures required when Consultant is a corporation, with one signature required from each of the following groups: 1) Chairperson of the Board, President or any Vice President; and 2) Secretary, any Assistant Secretary, Chief Financial Officer or any Assistant Treasurer. (Cal. Corp. Code § 313.) APPROPRIATE ATTESTATIONS SHALL BE INCLUDED AS MAY BE REQUIRED BY THE BYLAWS, ARTICLES OF INCORPORATION, OR OTHER RULES OR REGULATIONS APPLICABLE TO CONSULTANT'S BUSINESS ENTITY.

EXHIBIT A
SCOPE OF SERVICES

- I. Consultant will perform services described in Consultant's Proposal attached hereto.**
- II. All work product is subject to review and acceptance by City, and must be revised by Consultant without additional charge to City until found satisfactory and accepted by City.**

Scope of Services

The following scope of work is based on our understanding of the City's Phase 1 Northern Pressure Zone Conversion Project, as documented in the 2025 consolidation analysis and supporting hydraulic evaluations. This understanding reflects the identified deficiencies within the Elena, Blanca, and Nutmeg Zones; the use of approximately 1.03 MG of surplus storage in the Kings Tanks to meet emergency and fire flow demands; the determination that full consolidation of the Elena and Blanca Zones is not feasible due to water quality considerations; the planned increase of the Elena Zone HGL to approximately 220 feet; required PRV modifications; booster station upgrades; targeted pipeline improvements; and removal of the deteriorated Elena Tanks from service.

Our approach is informed by direct involvement in the preliminary investigations and hydraulic modeling that established the foundation for this strategy, including evaluation of storage deficits, fire flow limitations, booster station constraints, and the feasibility of relying on surplus Kings Tank storage in lieu of constructing the previously proposed upsized Nutmeg. The professional services described below are sequenced to establish the hydraulic and operational framework necessary to implement Phase 1 improvements while maintaining system stability and fire flow reliability.

TASK 1: PROJECT MANAGEMENT

Task 1.1 Kickoff Meeting

We will prepare for and participate in a Project Kickoff Meeting with City staff and supporting consultants. This meeting will establish communication protocols, confirm goals, and align the project approach and technical tasks with the City's expectations for Phase 1 implementation.

Task 1.2 Project Team Meetings

Throughout the project, we will participate in up to twelve Project Team meetings to maintain alignment with the City. These meetings will include schedule coordination, preparation of agendas and materials, facilitation of discussions, and documentation of action items and follow-up needs.

Task 1.3 External Agency/Stakeholder Meetings

We will also support up to five external meetings with agencies, utilities, or other stakeholders as needed. These meetings will focus on securing design coordination information, confirming permitting or review

requirements, and addressing constraints that affect Phase 1 improvements.

Task 1.4 Project Schedule

A comprehensive project schedule will be developed to reflect all Phase 1 components, including major deliverables, review periods, permitting timelines, and critical path tasks. The schedule will be maintained and updated throughout the design process.

Task 1.5 Quality Assurance

A quality assurance plan—or documentation of our internal QA/QC policies—will be submitted with the proposal. Throughout the project, all deliverables will undergo thorough internal review by key senior staff to confirm they are accurate, complete, and consistent with City standards before submittal.

Task 1.6 Project Management

Project management for Phase 1 will include coordinating all project activities, maintaining the overall schedule, and serving as the primary point of contact for the City throughout the duration of the work. We will lead regular project team meetings as necessary, manage communication among all project disciplines and subconsultants, and confirm that critical decisions, sequencing needs, and design milestones remain aligned with the City's objectives. The project schedule will be actively maintained and updated as needed to reflect design progress, permitting requirements, and review periods. All deliverables will be subject to internal QA/QC review to confirm technical accuracy, consistency, and constructability. Throughout the project, we will provide proactive guidance to keep the work on track, resolve issues quickly, and confirm smooth coordination from kickoff through final bid-ready documents.

TASK 2: DATA COLLECTION AND BASIS OF DESIGN

Task 2.1 Data Collection

We will compile available design records, as-built drawings, previous reports, easements, and mapping information relevant to Phase 1 facilities. Field reviews will be conducted to observe existing conditions, confirm utility locations, identify surface features, and evaluate potential constructability challenges. Physical, access, alignment, or infrastructure constraints will be documented and incorporated into the design.

Task 2.2 Tank Dive Inspection

During the preliminary design, our team will commission an updated condition assessment of the Nutmeg Tank by retaining MCS Inspection to perform an in service dive inspection. Because the most recent available inspection report is from 2020, the purpose of this work is to document current interior and exterior tank conditions and identify any coating deterioration, corrosion, structural concerns, or safety issues that may have developed since the previous assessment. MCS Inspection will complete a full dive inspection and provide supporting documentation, including photographs, video, and field notes describing all observed conditions. The information gathered during this inspection will then be used to prepare a summary outlining the recommended rehabilitation actions, recoating needs, and any priority repairs required to maintain the tank's long term serviceability.

Task 2.3 Basis of Design

All applicable plans, reports, industry standards, and regulatory requirements will be reviewed and summarized in a Basis of Design Memorandum. This document will define key design criteria, hydraulic requirements, operational needs, equipment sizing assumptions, PRV settings, and construction constraints. It will serve as the foundational reference for all subsequent design tasks.

TASK 3: SURVEYING AND BASE MAPPING

Task 3.1 Topographic and Boundary Survey

A detailed topographic survey will be completed sufficiently to support 100% design for Phase 1 projects. Survey work will establish control points and benchmarks for use throughout design and construction. Existing easements will be confirmed and incorporated into the base mapping, and all relevant above- and below-ground utilities, crossings, structures, and encroachments will be identified and mapped. Survey data will be provided in AutoCAD and PDF formats for use in design. Our team will utilize the previously completed aerial and ground topography survey for areas where data has been collected and gather field data to fill in the remaining areas needed.

TASK 4: ENVIRONMENTAL AND GEOTECHNICAL REVIEW

Task 4.1 Environmental Review

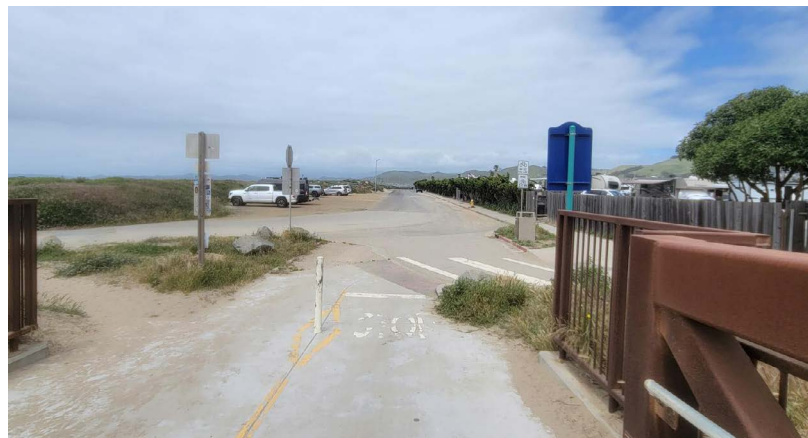
We will prepare the environmental technical documentation needed to support the City's CEQA determination, including literature review, biological survey and assessments, cultural resource evaluations, and an environmental commitments matrix summarizing

mitigation measures and regulatory requirements. We will coordinate closely with City staff and any environmental consultants to confirm that required environmental findings are completed and that all mitigation measures, permit conditions, and environmental constraints are incorporated into the final plans and specifications.

SWCA is prepared to support City staff and other environmental consultants to complete the required CEQA determination which is expected to be an Initial Study/Mitigated Negative Declaration (IS/MND), as needed to inform decision makers and facilitate the public review process. An IS/MND was drafted in 2022 based on the previous version of the project focused on the proposed "OneWater" Morro Bay Phase 1 Implementation – Water Distribution System: Nutmeg Pressure Projects. The draft version of the IS/MND will be revised and updated to address the additional project components in the Project Description and throughout the impact analysis sections. In addition to the updated IS/MND, this scope of work includes preparation of responses to comments received for the IS/MND and assumes up to five substantial comments or comment topics would be received. SWCA will incorporate any necessary clarifications and edits and prepare a final IS/MND, Mitigation Monitoring and Reporting Program (MMRP), and Notice of Determination (NOD) on behalf of the City.

Task 4.2 Geotechnical Review

Our team will review all available geotechnical data, including previously completed borings, soils investigations, grading records, and foundation reports relevant to the Phase 1 project locations. Using this information, we will prepare an updated geotechnical summary memo that identifies applicable soil characteristics, excavation considerations, foundation parameters, and construction recommendations. If additional borings or laboratory testing are determined to be necessary after evaluating the available information, these can be added at a later date as additional scope of work items.



TASK 5: DESIGN PHASE: PHASE 1 IMPROVEMENTS

Task 5.1 Project Constraints and Design Requirements

We will identify key design constraints and requirements based on the findings of Tasks 1–4 and review them with the City and Project Team. These constraints will include site access and layout limitations, easements, phasing requirements, environmental and archaeological considerations, permitting needs, utility conflicts, continuity of service requirements, and logistical considerations needed to keep the existing Elena Booster Station operational until the new station is online.

Task 5.2 30% Plans, Specifications, and Estimate

We will prepare the 30% PS&E package, including preliminary civil, mechanical, electrical, instrumentation, and control drawings. Specifications at this stage will focus on construction sequencing concepts, installation criteria, testing requirements, and a preliminary breakdown of bid items. An initial opinion of probable construction cost will be prepared consistent with a Class 4 AACE estimate. A 30% design review meeting will be held with City engineering and utility staff to discuss the documents and gather direction for the next design phase.

Task 5.3 60% Plans, Specifications, and Estimate

The 60% design package will refine all drawings and specifications, including profiles, sections, details, and construction requirements. At this stage, mitigation measures and regulatory agency requirements will be incorporated into the plans. Specifications will include technical content and front end documents. An updated Class 2 cost estimate will be provided, and a review meeting will be conducted with City staff to confirm design direction.

Task 5.4 90% Plans, Specifications, and Estimate

The 90% package will represent a substantially complete bid package with fully developed plans, technical specifications, front end documents, construction requirements, mitigation measures, and coordination details. A Class 1 cost estimate will be prepared at this stage. A formal 90% review meeting will be held to capture final comments prior to preparing bid-ready documents.

Task 5.5 100% PS&E Bid Documents

We will prepare the final construction bid documents incorporating all City comments from the 90% review and all required QA/QC revisions. A final cross-check of drawings, specifications, and cost items will be performed to confirm the package is coordinated, complete, and compliant with all permitting and funding requirements.

The completed bid documents will be ready for advertisement.

TASK 6: PERMITTING AND APPROVALS

Task 6.1 Permitting Support

We will assist the City with identifying all permits and approvals required for construction, including those from Caltrans, SLO County, RWQCB, Division of Drinking Water, biological and environmental agencies, and other regulatory entities as needed. Support will include preparation of application materials, technical exhibits, attendance at meetings, and responses to agency questions throughout the permitting process.

TASK 7: BID AND AWARD PHASE

Task 7.1 Pre-Bid Conference

We will facilitate the pre-bid conference, present the project overview to potential bidders, and assist the City in answering questions regarding project scope and requirements.

Task 7.2 Addenda and Questions

During the bidding period, we will prepare technical responses to bidder questions and assist in drafting addenda, including revisions to plans or specifications when needed to confirm clarity and fairness in bidding.

Task 7.3 Bid Review

We will assist the City with evaluating submitted bids for accuracy, responsiveness, and qualification. A bid summary sheet and recommendation for award will be prepared for City consideration.

TASK 8: CONSTRUCTION PHASE

Task 8.1 Engineering Services During Construction (ESDC)

During construction, we will provide engineering support that includes attending the pre-construction job walk, reviewing contractor submittals, responding to RFIs, participating in up to ten construction progress meetings and site visits, and preparing record drawings in PDF and DWG formats at project completion. These services will help ensure that the contractor's work aligns with the approved plans and specifications and that field issues are addressed promptly and effectively.



EXHIBIT B
SPECIAL REQUIREMENTS
(Superseding Agreement Boilerplate)

NOT APPLICABLE

EXHIBIT C

SCHEDULE OF COMPENSATION

- I. Consultant will be compensated for Services provided under this Agreement in accordance with description in Consultant's Proposal attached hereto.**
- II. City will compensate Consultant for the Services performed upon submission of a valid invoice, as described in Section 2.2.**
- III. The total compensation for the Services shall not exceed the Contract Sum, as provided in Section 2.1 of this Agreement.**

**FEE SCHEDULE FOR
ENGINEERING CONSULTING SERVICES
CITY OF MORRO BAY
NORTH MORRO BAY WATER SYSTEM IMPROVEMENTS PROJECT**

Description	Cannon																				Subconsultants				Reimbursables Amount	Total																						
	Project Manager		Quality Control		Sr. Electrical Engineer		Sr. Structural Engineer		Sr. Controls Engineer		Civil Associate Engineer		Electrical Associate		Structural Associate		Controls Associate		Project Engineer		Construction Manager		Engineering Assistant IV			Sr Land Surveyor		2-Man Survey Field Crew		Environmental SWCA		Geotech, Inspection, Aerial																
	Hrly Rate:	\$288	Hrly Rate:	\$307	Hrly Rate:	\$276	Hrly Rate:	\$260	Hrly Rate:	\$244	Hrly Rate:	\$220	Hrly Rate:	\$163	Hrly Rate:	\$185	Hrly Rate:	\$162	Hrly Rate:	\$170	Hrly Rate:	\$247	Hrly Rate:	\$138		Hrly Rate:	\$247	Hrly Rate:	\$415	LS		LS																
	Hrs	Amount	Hrs	Amount	Hrs	Amount	Hrs	Amount	Hrs	Amount	Hrs	Amount	Hrs	Amount	Hrs	Amount	Hrs	Amount	Hrs	Amount	Hrs	Amount	Hrs	Amount		Hrs	Amount	Hrs	Amount	Hrs	Amount	Hrs	Amount															
1. PRELIMINARY ENGINEERING AND PROJECT COORDINATION																																																
1.1	Project Kick-off Meeting	4	\$1,152	4	\$1,228	4	\$1,104					4	\$880																			\$250	16	\$4,614														
1.2	Project Team Meetings	24	\$6,912	24	\$7,368							24	\$5,280																			\$1,000	72	\$20,560														
1.3	External Agency/Stakeholder Meetings	10	\$2,880	10	\$3,070							10	\$2,200																			\$750	30	\$8,900														
1.4	Project Schedule	2	\$576									8	\$1,760																					10	\$2,336													
1.5	Quality Assurance	8	\$2,304	20	\$6,140	8	\$2,208	8	\$2,080	8	\$1,952										8	\$1,976												60	\$16,660													
1.6	Project Management	24	\$6,912			8	\$2,208	8	\$2,080	8	\$1,952												8	\$1,104										56	\$14,256													
TASK 1 SUBTOTAL		72	\$20,736	58	\$17,806	20	\$5,520	16	\$4,160	16	\$3,904	46	\$10,120								8	\$1,976	8	\$1,104								\$2,000	244	\$67,326														
2. DATA COLLECTION AND BASIS OF DESIGN																																																
2.1	Data Collection	4	\$1,152									4	\$880	4	\$652	4	\$740	4	\$648	4	\$680			4	\$552									28	\$5,304													
2.2	Tank Dive Inspection																																		\$7,150	\$7,150												
2.3	Basis of Design	4	\$1,152									8	\$1,760	8	\$1,304	8	\$1,480	8	\$1,296	8	\$1,360			8	\$1,104										52	\$9,456												
TASK 2 SUBTOTAL		8	\$2,304									12	\$2,640	12	\$1,956	12	\$2,220	12	\$1,944	12	\$2,040			12	\$1,656								\$7,150	80	\$21,910													
3. Surveying and Base Mapping																																																
3.1	Topographic and Boundary Survey																																	36	\$8,892	40	\$16,600			\$4,500	\$500	76	\$30,492					
TASK 3 SUBTOTAL																																		36	\$8,892	40	\$16,600			\$4,500	\$500	76	\$30,492					
4. ENVIRONMENTAL AND GEOTECHNICAL REVIEW																																																
4.1	Environmental Support																																							\$42,900	\$42,900.00							
4.2	Geotechnical Support																																							\$21,494	\$21,494							
TASK 4 SUBTOTAL																																							\$42,900	\$21,494			\$64,394.00					
5. DESIGN PHASE- PHASE 1 IMPROVEMENTS																																																
5.1	Project Constraints/ Design Requirements	8	\$2,304	4	\$1,228	4	\$1,104	4	\$1,040	4	\$976	20	\$4,400	16	\$2,608	8	\$1,480	16	\$2,592	8	\$1,360			16	\$2,208																			108	\$21,300			
5.2	30% Plans, Specifications & Estimate	8	\$2,304	8	\$2,456	24	\$6,624	12	\$3,120	12	\$2,928	75	\$16,500	30	\$4,890	24	\$4,440	30	\$4,860	100	\$17,000			20	\$2,760																				343	\$67,882		
5.3	60% PS&E	8	\$2,304	8	\$2,456	12	\$3,312	12	\$3,120	18	\$4,392	55	\$12,100	60	\$9,780	24	\$4,440	60	\$9,720	120	\$20,400			20	\$2,760																				397	\$74,784		
5.4	90% PS&E	8	\$2,304	8	\$2,456	8	\$2,208	8	\$2,080	8	\$1,952	40	\$8,800	24	\$3,912	16	\$2,960	24	\$3,888	80	\$13,600			20	\$2,760																			244	\$46,920			
5.5	100% PS&E Bid Documents	4	\$1,152	8	\$2,456	6	\$1,656	6	\$1,560	6	\$1,464	20	\$4,400	20	\$3,260	8	\$1,480	20	\$3,240	40	\$6,800			20	\$2,760																			158	\$30,228			
TASK 5 SUBTOTAL		36	\$10,368	36	\$11,052	54	\$14,904	42	\$10,920	48	\$11,712	210	\$46,200	150	\$24,450	80	\$14,800	150	\$24,300	348	\$59,160			96	\$13,248																	1250	\$241,114					
6. Permitting and Approvals																																																
6.1	Permitting Support	2	\$576									24	\$5,280										24	\$4,080		16	\$2,208																66	\$12,144				
TASK 6 SUBTOTAL		2	\$576									24	\$5,280										24	\$4,080		16	\$2,208															66	\$12,144					
7. Bid and Award Phase																																																
7.1	Pre-Bid Conference	8	\$2,304	8	\$2,456							8	\$1,760										8	\$1,976																				32	\$8,496			
7.2	Addenda and Questions	2	\$576			2	\$552	2	\$520	2	\$488	8	\$1,760	2	\$326	2	\$370	2	\$324	4	\$680																								26	\$5,596		
7.3	Bid Review	4	\$1,152	2	\$614	2	\$552	2	\$520	2	\$488	2	\$440										2	\$494																				16	\$4,260			
TASK 7 SUBTOTAL		14	\$4,032	10	\$3,070	4	\$1,104	4	\$1,040	4	\$976	18	\$3,960	2	\$326	2	\$370	2	\$324	4	\$680			10	\$2,470																		74	\$18,352				
8. Construction Phase																																																
8.1	Engineering Services during Construction (ESDC)	40	\$11,520	10	\$3,070	8	\$2,208	8	\$2,080	8	\$1,952	40	\$8,800	20	\$3,260	20	\$3,700	20	\$3,240	20	\$3,400	80	\$19,760	40	\$5,520																					\$1,250	314	\$69,760
TASK 8 SUBTOTAL		40	\$11,520	10	\$3,070	8	\$2,208	8	\$2,080	8	\$1,952	40	\$8,800	20	\$3,260	20	\$3,700	20	\$3,240	20	\$3,400	80	\$19,760	40	\$5,520																			\$1,250	314	\$69,760		
GRAND TOTAL (ALL Tasks)		172	\$49,536	114	\$34,998	86	\$23,736	70	\$18,200	76	\$18,544	350	\$77,000	184	\$29,992	114	\$21,090	184	\$29,808	408	\$69,360	98	\$24,206	172	\$23,736	36	\$8,892	40	\$16,600												\$42,900	\$33,144	\$3,750	2104	\$525,492			

EXHIBIT D

SCHEDULE OF PERFORMANCE

- I. Consultant shall perform all services and deliver all work products timely in accordance with the schedule described in Consultant's Proposal attached hereto.**

