DOCKETED	
Docket Number:	17-MISC-01
Project Title:	California Offshore Renewable Energy
TN #:	248109
Document Title:	AB 525 Conceptual Permitting Roadmap
Description:	AB 525 Draft Conceptual Permitting Roadmap for Offshore Wind Energy Facilities Originating n Federal Waters off the Coast of California
Filer:	susan fleming
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	12/15/2022 4:44:52 PM
Docketed Date:	12/15/2022

IN THE MATTER OF:

California Offshore Renewable Energy

DOCKET NO. 17-MISC-01
ASSEMBLY BILL 525 DRAFT
CONCEPTUAL PERMITTING ROADMAP

RE: Offshore Renewable Energy

Assembly Bill 525: Draft Conceptual Permitting Roadmap for Offshore Wind Energy Facilities Originating in Federal Waters off the Coast of California[1]

I. Background

Assembly Bill (AB) 525 (Chiu, Chapter 231, Statutes 2021)[2] requires the California Energy Commission (CEC) to develop and produce a coordinated, comprehensive, and efficient permitting roadmap for offshore wind energy facilities in federal waters off the coast of California, and associated electricity and transmission infrastructure.[3] The permitting roadmap must include:

- a goal for the permitting timeframe,
- clearly defined local, state, and federal agency roles, responsibilities, and decision-making authority, and
- interfaces with federal agencies, including timing, sequence, and coordination with federal permitting agencies, and coordination between reviews under the California Environmental Quality Act (CEQA) and the federal National Environmental Policy Act of 1969, as amended (NEPA).[4]

This paper presents a conceptual permitting roadmap. The roadmap is characterized as conceptual because there are currently many unknowns that make specificity unfeasible at this time, however the process described below is intended to establish a structure that allows for addressing these unknowns. The conceptual roadmap is envisioned as a dynamic document to be edited and updated as new information becomes known about transmission, ports and waterfront facilities, and project details, timing, environmental review requirements, and opportunities.

Key assumptions underlying the conceptual permitting roadmap are: (1) that interagency memoranda of agreement/understanding and coordination plans are foundational to effective, coordinated, comprehensive, and efficient permitting, and (2) it can be implemented without new laws, though additional state and local agency resources are critical.

[1] This public review draft will be updated and formatted into a final publication to be considered at the CEC Business Meeting on December 28, 2022.
[2] Bill Text - AB-525 Energy: offshore wind generation. (ca.gov)
[3] Pub. Resources Code, § 25991.5(a).
[4] Pub. Resources Code, § 25991.5(c).

The foundational interagency memoranda of agreement/understanding and coordination plans will serve as specific permitting roadmaps and will reflect the individual geographic regions to account for different permitting agencies involved, and the uniqueness of the marine and onshore environment, tribal governments, stakeholders, infrastructure needs, and other factors and considerations. And consultation and collaboration among federal, state, and local governments and stakeholder outreach and engagement will continue to be a priority in the development of the AB 525 strategic plan due to the Legislature by June 30, 2023,[5] including the anticipated iterative process of refining the conceptual permitting roadmap, as well as in future project review, entitlement, and implementation processes.

The conceptual permitting roadmap is timely because it provides an immediate path forward that aligns with anticipated first quarter 2023 issuance of leases resulting from the Department of Interior's Bureau of Ocean Energy Management (BOEM) December 6, 2022 lease sale of five areas in federal waters off the coast of California for offshore wind energy facilities. Because BOEM is now poised to issue leases, the conceptual permitting roadmap focuses on activities *after* lease issuance and how lease implementation and BOEM permitting intersects with and can be coordinated with state and local entitlements and environmental review.

The following discussion describes the opportunity for floating offshore wind energy in BOEM lease areas off the coast of California and the important distinctions between federal, state, and local permitting processes, and identifies the many public entities with review and entitlement authority.

II. The Potential of Floating Offshore Wind to Advance California's Climate and Clean Energy Goals

Development and deployment of offshore wind in federal waters off the coast of California can advance California's efforts to meet its ambitious clean energy and climate mandates and provide economic and environmental benefits to the state. The CEC's August 2022 report titled *Offshore Wind Energy Development off the California Coast, Maximum Feasible Capacity and Megawatt Planning Goals for 2030 and 2045*,[6] explains how wind energy developed in federal waters off California's coast is poised to play an important role in diversifying the state's portfolio of resources and helping California achieve the goals of The 100 Percent Clean Energy Act of 2018 (Senate Bill [SB] 100, De León, Chapter 312, Statutes

[5] AB 525 requires the CEC in coordination with the California Coastal Commission, the Ocean Protection Council, the State Lands Commission, the Office of Planning and Research, the Department of Fish and Wildlife, the Governor's Office of Business and Economic Development, the Independent System Operator, the Public Utilities Commission, other relevant federal, state, local agencies, California Native American tribes, and other affected stakeholders, including fisheries groups, labor unions, environmental justice organizations, environmental organizations, and other ocean users as needed, to develop a strategic plan for offshore wind energy developments installed off the California coast in federal waters. The CEC must submit the strategic plan to the California Natural Resources Agency and the Legislature on or before June 30, 2023. (Public Resources Code, §§ 25991(a)(1), 25991.5(b), 26991.6)

[6] Based on the 2021 Joint Agency Report and other pertinent studies and information, in August 2022, the CEC established preliminary megawatt offshore wind planning goals of 2,000 - 5,000 megawatts (2- 5 GW) for 2030 and 25,000 megawatts (25 GW) for 2045 -- for wind energy development in federal waters offshore California. CEC established these goals, as required by AB 525, for purposes of informing the development of a strategic plan for offshore wind energy developments installed off the California coast in federal waters. See, Flint, Scott, Rhetta deMesa, Pamela Doughman, and Elizabeth Huber. 2022. Offshore Wind Development off the California Coast: Maximum Feasible Capacity and Megawatt Planning Goals for 2030 and 2045. California Energy Commission. Publication Number: CEC-800-2022-001-REV. https://www.energy.ca.gov/filebrowser/download/4361

of 2018). SB 100 requires that eligible renewable energy resources[7] and zero-carbon resources supply 100 percent of total retail sales of electricity in California to end-use customers and 100 percent of electricity procured to serve all state agencies by 2045.[8]

To date, nearly all offshore wind energy projects in other parts of the world have used fixed-bottom foundations, which are more suitable for shallow waters of 60 meters (about 200 feet) or less. However, because the Pacific Outer Continental Shelf off California's coast has steep drop-offs, and deep waters, offshore wind projects in federal waters off the coast of California will use floating platforms with wind turbines installed on them, connected by electrical cables linking the floating turbines and running to a floating collector/substation, mooring cables and anchors attaching the floating turbines to the seafloor, and an electrical export cable running from the floating substation to shore.

Floating offshore wind development will require upgrades made to ports and waterfront facilities to support a range of activities, including construction and staging of floating platform foundations, manufacturing and storage of components, final assembly, and long-term operations and maintenance. The conceptual permitting roadmap presented in this document does not focus on the permitting processes for the upgrades that will be needed at ports and waterfront facilities, as that discussion is expected to be included, to the extent feasible, in the AB 525 strategic plan due to the California Natural Resources Agency (CNRA) and the Legislature by June 30, 2023.

In addition to ports and waterfront facilities, floating offshore wind will require development of new electric transmission lines. The conceptual permitting roadmap presented in this document is intended to apply only to permitting processes for transmission that would be evaluated as part of offshore wind energy developments up to their first onshore points of interconnection. The AB 525 strategic plan will assess the transmission investments and upgrades necessary, including subsea transmission options, to support the state's offshore wind planning goals of 2 to 5 GW by 2030 and 25 GW by 2045. To the extent feasible, the assessment of transmission investments as part of the AB 525 strategic plan, including those investments that go beyond the first point of shoreside interconnection, will include information on the types of approvals and permits necessary to develop the land-based transmission infrastructure required to deliver energy from offshore wind turbine projects. The CEC is developing the assessment in consultation with the California Public Utilities Commission (CPUC) and California Independent System Operator (CAISO), and the assessment is expected to complement and align with ongoing work among these entities on the state's transmission and resource planning processes to facilitate development of the infrastructure required to meet SB 100.

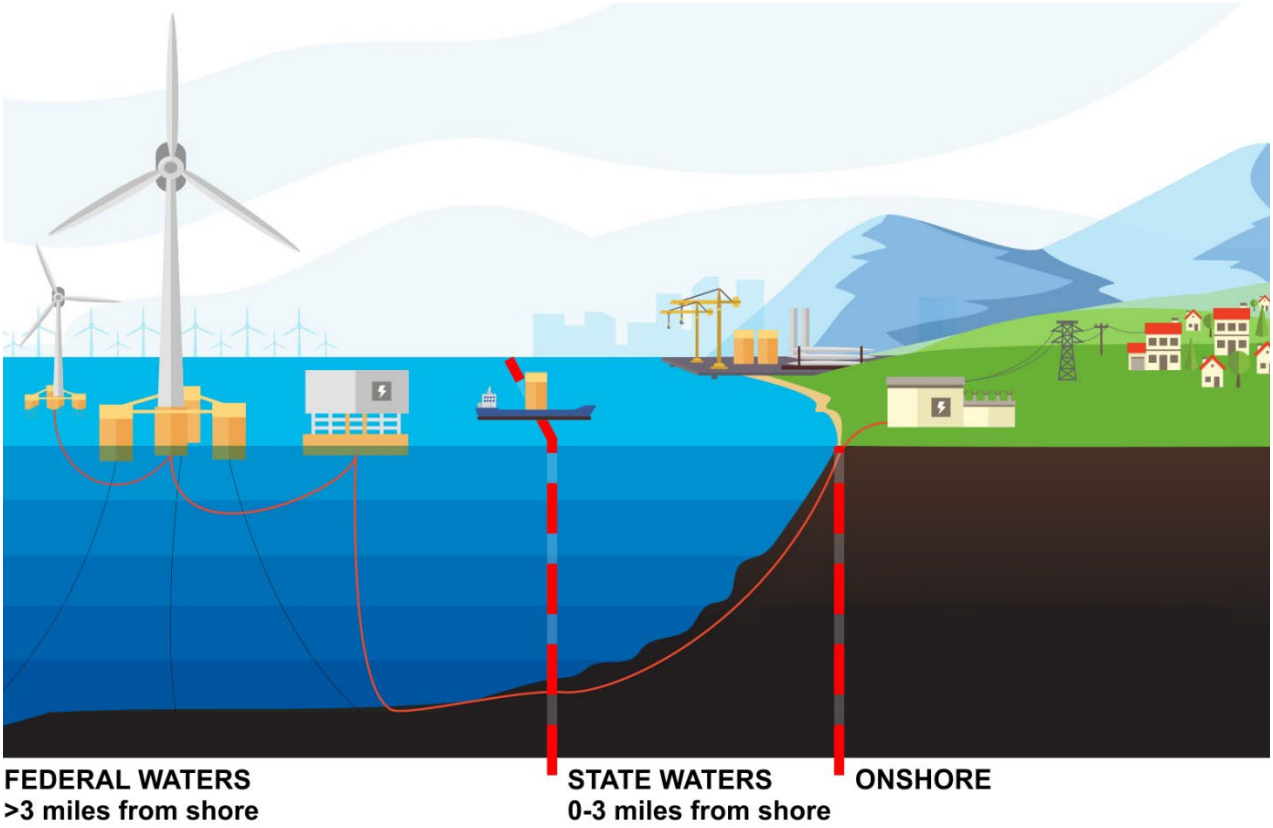
[7] "Eligible renewable energy resources" means an electrical generating facility that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current. (Pub. Utilities Code, § 399.12(e); Pub. Resources Code, § 25741(a)(1).)

[8] SB 1020 (Laird, Chapter 361, Statutes of 2022), the Clean Energy, Jobs, and Affordability Act of 2022, accelerates the 2045 policy for eligible renewable and zero-carbon resources by putting milestones of 90 percent by 2035, 95 percent by 2040, and requiring that all electricity procured to serve state agencies by 2035 come from eligible renewable and zero-carbon resources.
https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB1020

III. Floating Offshore Wind Generating Facilities and Related Components will Cross Federal and State Waters into Onshore Jurisdictions, Requiring Several Sequenced Reviews and Approvals

AB 525 is focused on offshore wind energy development at scale in federal waters off the coast of California. Figure 1 below provides a conceptual overview of the location of floating offshore wind energy generating facilities in federal waters and how their components and related infrastructure will need to cross state waters and trust lands, and connect to onshore facilities subject to federal, state, and local jurisdictions. The figure makes clear that implementation of a permitting roadmap is essential for timely, coordinated, and efficient permitting processes among federal, state, and local entities responsible for issuing entitlements and associated environmental review. To this end, AB 525 requires that the permitting roadmap describe the various time frames and milestones, agency approvals needed, sequencing among the various permitting agencies (local, state, and federal), and opportunities for coordinating environmental review under the National Environmental Policy Act and California Environmental Quality Act.

Figure 1: Illustrative Diagram of Jurisdictional Considerations for Floating Offshore Wind Projects



Source: Original image from: www.emergy.gov/eere/wind/floating-offshore-wind-shot. The image was modified to show federal, state, and onshore areas.

A. BOEM Process

The sequence of reviews and approvals begins with BOEM, which manages development of the nation's offshore energy and mineral resources. BOEM has exclusive authority to grant leases and approve

facility construction and operations plans for renewable energy development in federal waters, in the United States Outer Continental Shelf (OCS). As described by BOEM, the Pacific OCS encompasses the area between state jurisdiction over the seafloor and waters – from the mean shoreline out to 3 nautical miles -- to 200 nautical miles from shore. [9]

BOEM issues leases and approvals for construction and operations plans under a clearly articulated leasing process conducted under the authority of the Outer Continental Shelf Lands Act (OCSLA)[10] and its implementing regulations,[11] other applicable federal laws, and the final sale notice and accompanying lease documents for a particular lease sale for renewable energy development. BOEM's approval and environmental review processes for renewable energy projects in the OCS encompass the four phases shown in Figure 2.

Figure 2: BOEM's Four-Phase Process for Renewable Energy Projects in the OCS

Source: BOEM webpage, Regulatory Framework and Guidelines, Regulatory Framework and Guidelines | Bureau of Ocean Energy Management (boem.gov)

BOEM's coordination and collaboration with federal, state, local, and tribal governments through intergovernmental renewable energy task forces begins in the planning and analysis phase and can continue throughout the construction and operations phase.[12] These task forces provide forums for information sharing to inform all facets of the BOEM process.

BOEM is currently poised to complete phase two activities with lease issuance and begin phase three activities. In light of the pre-sale activities already completed by BOEM (see Appendix B), the discussion and conceptual permitting road map below focus on activities after lease issuance — the third and

[9] BOEM webpage "Outer Continental Shelf," Outer Continental Shelf | Bureau of Ocean Energy Management (boem.gov)

[10] The Energy Policy Act of 2005 (EPAct) authorized BOEM to issue leases, easements and rights of way to allow for renewable energy development on the (OCS.

[11] BOEM Renewable Energy Program Regulations (30 CFR 585)

[12] BOEM Fact Sheet on Wind Energy Commercial Leasing Process, BOEM Wind Energy Commercial Lease Fact Sheet

fourth phases of BOEM's "Regulatory Roadmap" — and how these phases intersect with and can be coordinated with state and local entitlements and environmental review.

The discussion and conceptual permitting roadmap discussed below focus on how state and local permitting processes interact with and can be coordinated with the third and fourth phases of BOEM's regulatory process, given the need for accelerated action in light of the December 6, 2022, BOEM lease sale. As the state and BOEM work together to identify additional potential areas in federal waters for offshore wind energy development, the structure and process envisioned in the conceptual permitting roadmap below can apply to pertinent activities in the first and second phases of BOEM's regulatory process that contribute to an efficient permitting approach in the third and fourth phases.

BOEM Phase Three Activities Related to California

Site assessment activities by individual lessees take place during this phase. These are initial activities conducted to characterize a lease site on the OCS, such as resource assessment surveys (e.g., meteorological and oceanographic) or technology testing, involving the installation of bottom-founded facilities.[13] BOEM estimates that the phase can take up to 6 years after lease issuance: up to one year for a "preliminary term" to develop a site assessment plan (SAP) and up to 5 years for the "site assessment term."[14]

During the preliminary term, lessees are required to prepare specific types of communications plans (described further below) and if lessees will conduct surveys during this preliminary term they must prepare and submit survey plans to BOEM, in support of physical, biological, or cultural resources surveys. BOEM must approve those survey plans prior to lessees conducting any surveys. These surveys will support site characterization activities necessary to develop a SAP.

If a lessee chooses to develop a SAP, it must be submitted to BOEM no later than one year from the date of lease issuance.[15] A SAP describes the activities (e.g., installation of meteorological towers, meteorological buoys) a lessee plans to perform for the characterization of the commercial lease, including a project easement, or to test technology devices. [16] More specifically, a SAP must describe how a lessee will conduct a resource assessment (e.g., meteorological and oceanographic data collection) or technology testing activities; and include data from physical characterization surveys (e.g., geological and geophysical surveys or hazards surveys); and baseline environmental surveys (e.g., biological or archaeological surveys).

The environmental assessments prepared by BOEM for the WEAs "focused on potential environmental consequences of site characterization activities (i.e., biological, archaeological, geological, and geophysical surveys and core samples) and site assessment activities *(*i.e., installation of meteorological buoys) expected to take place after issuance of wind energy leases." BOEM made findings of no significant impact for the WEAs. [17] While the *Pacific Wind Lease Sale 1 (PACW-1) for Commercial Leasing*

[13] eCFR :: 30 CFR 585.112 -- Definitions.
[14] An example of this can be found in one of the five final lease documents: PACW-1 CA Lease OCS-P 0561 (boem.gov)
[15] 30 CFR 585.601 (a) A lessee may submit a COP with the SAP. 30 CFR 585.601(c)
[16] eCFR :: 30 CFR 585.605 -- What is a Site Assessment Plan (SAP)?
[17] *https://www.boem.gov/renewable-energy/state-activities/humboldt-wind-energy-area;* https://www.boem.gov/renewable-energy/state-activities/morro-bay-wind-energy-area

for Wind Power on the Outer Continental Shelf in California - Final Sale Notice (PACW-1FSN) states that BOEM "will conduct additional environmental reviews upon receipt of a lessee's proposed project-specific plans, such as a Site Assessment Plan (SAP) or Construction and Operations Plan (COP),"[18] the CEC understands this to mean, consistent with BOEM regulations, that BOEM *will* conduct additional reviews, but *may need* to conduct NEPA analysis, if significant new information become available after a lessee completes site assessment activities.[19]

Additional BOEM review and environmental analysis could potentially trigger additional review by the California Coastal Commission under authority granted by the federal Coastal Zone Management Act (CZMA).[20] Site assessment activities are reviewed under the Coastal Commission's consistency determinations covering leasing activities.[21,22] Any activities not fully covered in these consistency determinations could require supplemental review.

Site assessment activities also have potential to require permits from the California State Lands Commission (CSLC) and the California Department of Fish and Wildlife (CDFW). Subject to several exceptions, CSLC requires a geophysical survey permit for activities performed on state sovereign lands, including tidelands and submerged lands and the beds of navigable waterways.[23,24] A permittee must also obtain any permits or authorizations from other federal, state, and local agencies, as necessary. CSLC issues this permit under its Geophysical Survey Permit Program.[25] CDFW requires a Scientific Collecting Permit that allows the take or possession of wildlife, including mammals, birds and the nests and eggs thereof, reptiles, amphibians, fish, certain plants and invertebrates for scientific, educational, and propagation purposes."[26] CDFW has 40 calendar days to determine if a permit application is complete and will generally approve or deny the permit within 60 calendar days of determining an application is complete.[27] Neither process requires permit-specific CEQA review. CDFW also issues Incidental Take Permits for the take of endangered, threatened, and candidate species under certain conditions.[28] CDFW has 30 calendar days to determine if an application is complete and 90 days to develop a permit. Scientific Collecting Permits and Incidental Take Permits may be required in all four phases of offshore wind development depending on the activities needed to complete each phase and any ongoing requirements (e.g., monitoring).

Importantly, before site assessment activities begin, the PACW-1 FSN lease documents require each lessee — within 120 days of the lease effective date — to provide an agency communication plan (ACP)

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[18] See section V. Environmental Review of the Federal Register: Pacific Wind Lease Sale 1 (PACW-1) for Commercial Leasing for Wind Power on the Outer Continental Shelf in California-Final Sale Notice

[19] 30 CFR § 585.601(c)(2).

[20] 16 U.S.C. §§ 1451-1464.

[21] Federal Consistency Program (ca.gov)

[22] The California Coastal Commission application of CZMA to BOEM's consistency determinations and the final reviews and adopted conditions and findings for each WEA: Humboldt WEA Coastal Commission Consistency Determination Adopted Findings and Conditions and
Morro Bay WEA Coastal Commission Consistency Determination Adopted Findings and Conditions

[23] CCR, title 2, section 2100.02

[24] CCR, title 2, section 2100.04

[25] CCR, title 2, section 2100.07 (4)

[26] Scientific Collecting Laws and Regulations (ca.gov)

[27] Cal. Code Regs., tit. 14, § 650 (e)(3)(B)

[28] Fish and Game Code, § 2081, subds. (a) and (b)

to, and host a related meeting with federal, state, and local agencies (including harbor districts) with authority related to the lease area.[29] The ACP must describe the strategies that the lessee intends to use for communicating with these entities and should outline specific methods for engaging with and disseminating information to these agencies. According to BOEM's lease documents, the purpose of the ACP is to ensure early and active information sharing, focused discussion of potential issues, and collaborative identification of solutions in order to improve the quality and efficiency of various agency decision-making processes, and to promote the sustainable development of offshore wind energy projects. Accordingly, the ACP should include detailed information and protocols for regular engagement with permitting, planning, and resource agencies including, but not limited to, the types of engagement activities (e.g., one-on-one meetings, interagency meetings, open information sharing meetings, etc.); the frequency of proposed engagements/meetings (e.g., monthly, quarterly, bi-annually, annually, etc.); meeting locations and/or virtual platforms; and contact information (e.g., telephone numbers, email addresses, etc.).

By the time of this meeting with each lessee within 120-days of lease issuance, all entities with likely review and approval authority will have been identified and this first ACP meeting can serve as the springboard for the first meeting of the offshore wind energy intergovernmental renewable energy team described below in the conceptual permitting roadmap. Appendix B identifies many of the entities who will have a role in reviewing or approving aspects of the offshore wind projects.

In addition to requirements for an ACP, the PACW-1 FSN lease documents require each lessee to develop a Native American Tribes Communications Plan (NATCP) that describes the strategies that the lessee intends to use for communicating with Tribes that have cultural and/or historical ties to the Lease Area. The purpose of the NATCP is to ensure early and active information sharing, focused discussion about potential issues, and collaborative identification of solutions to ensure that Tribes have an early and active role in providing input to the Lessee before it makes decisions that may impact their cultural, economic, environmental, and other interests.

In addition to the requirements for an ACP and NATCP, the PACW-1 FSN lease documents require each lessee to develop a Fisheries Communications Plan (FCP) that describes the strategies that the lessee intends to use for communicating with commercial fishing communities prior to and during activities in support of the submission of future plans (e.g., survey plans, SAP, and COP). Among other things, the FCP must also include the strategy and timing of discussions with commercial fishing communities regarding the reduction of conflicts with facility designs and marine vessel operations.

While not aligned perfectly to agency responsibilities for permitting, tribes and the commercial fishing industry will be impacted by activities related to floating offshore wind development and the NATCP and FCP can, in part, serve a similar function as the ACP as a foundation for the conceptual permitting roadmap. The PACW-1 FSN lease documents impose similar requirements in the first 120-days from lease issuance for the NATCP and FCP as is required for the ACP.

[29] This lease stipulation can be found in Appendix C, Section 3.1.3 in the final lease documents: PACW-1 CA Lease OCS-P 0561 (boem.gov)

BOEM Phase 4 Activities Related to California

If a lessee chooses to submit a construction and operations plan (COP), it must do so within six months before completion of the five-year site assessment phase. A COP is a detailed plan for the construction and operation of a wind energy project in a lease area subject to a BOEM-issued lease.[30]

BOEM's regulations describe the requirements for a COP[31] and BOEM has also published a "NOI Checklist," as guidance, to help lessees prepare their COPs.[32] In October 2022, BOEM proposed revisions to the NOI Checklist that reflects BOEM's determination it can begin processing incomplete COP submissions, subject to a BOEM-reviewed "supplemental filing schedule" that allows lessees to submit information under a phased approach. According to BOEM, this "revised approach identifies the minimum threshold for a partial COP submission that an applicant generally should meet before BOEM will initiate the NEPA analysis through publication of an NOI. Moreover, BOEM will consider conformance with the NOI Checklist when considering acceptance of FAST-41 initiation notices and setting timelines within Coordinated Project Plans, where applicable."[33]

FAST-41 is a program developed under the federal Fixing America's Surface Transportation Act[34] that provides for coordinated review and oversight among several federal agencies for infrastructure "covered projects" through improved early consultation and coordination among government agencies; increased transparency through the publication of project-specific timetables with completion dates for all federal authorizations and environmental reviews; and increased accountability through consultation and reporting on projects.[35] A covered project is subject to NEPA, likely to require a total investment of more than $200,000,000; and does not qualify for abbreviated authorization or environmental review processes under any applicable law.[36] FAST-41 is not mandatory; rather, project owners can request to take part in the FAST-41 process and an application for an eligible project must be approved.[37]

BOEM will conduct a NEPA review for a COP, which will include coordination and consultation with other federal agencies as required by federal law. And a lessee might also need approvals from other federal agencies that might include, but not be limited to the U. S. Department of Homeland Security, U.S. Coast Guard; U.S. Department of Defense, U.S. Army Corps of Engineers; U.S. Department of Transportation, Federal Aviation Administration; U.S. Environmental Protection Agency; and U.S. Department of Commerce, National Oceanic and Atmospheric Administration.

[30] Information Requirements for a Construction and Operations Plan (COP) (May 2020)
[31] Subpart F (30 CFR 585.620-585.629)
[32] https://www.boem.gov/sites/default/files/documents/about-boem/COP%20Guidelines.pdf
[33] Draft BOEM NOI Checklist All ASLM Edits Incorporated CLEAN_9-29-22
[34] Public Law 114-94 Dec. 5, 2015
[35] FAST-41 | Department of Energy
[36] 42 USC CHAPTER 55, SUBCHAPTER IV: FEDERAL PERMITTING IMPROVEMENT §4370m. Definitions (6) Covered project https://uscode.house.gov/view.xhtml?path=/prelim@title42/chapter55/subchapter4&edition=prelim
[37] The Infrastructure Investment and Jobs Act made FAST-41 permanent law and required that permitting performance schedules typically not exceed two years. https://www.permits.performance.gov/fpisc-content/congress-expands-power-agency-reformed-infrastructure-permitting

B. California Environmental Review Process

As described in the previous section, several state agencies have been coordinating on offshore wind planning since 2016 under the umbrella of the BOEM California Intergovernmental Renewable Energy Task Force. To date, a more formal permitting or leasing process by state or local agencies, along with required CEQA compliance, has not been initiated. State permitting processes rely on completion of CEQA prior to decisions on any discretionary permits. The only official state actions have been the CZMA consistency determinations for the WEAs, heard by the Coastal Commission at its April and June meetings in 2022, which were part of BOEM's Phase 1 and 2 activities described in more detail in Appendix B.

With the issuance of leases, BOEM will move into Phase 3, site assessment, as explained above. Some of the activities proposed for site assessment may require state permits or entitlements (e.g., geophysical permit, scientific collecting permit), but they would not normally require preparation of a separate CEQA document, as they are information collection activities that generally would not have significant impacts on the environment. While this phase is still prior to the initiation of the major state permitting processes, such as an application for a state tidelands lease or coastal development permit and their associated CEQA compliance via environmental review, which is expected to lead to preparation of an environmental impact report (EIR), phase 3 nonetheless presents an important opportunity for collaboration because the eventual EIR would rely on the best available scientific information, which will be developed, in part, through the site surveys and SAPs. Therefore, while phase 3 is still largely driven and coordinated by the federal process and timelines, state and local agency coordination with BOEM and lessees on the necessary site and resource assessments associated with this phase are critical to ensuring that these studies are adequate to allow the state lead CEQA agency to develop a robust and accurate description of the *environmental baseline* and *environmental setting* against which potential impacts would be measured in the state's CEQA document(s).

Preparation of the NATCP, and FCP, in turn, should be closely coordinated to ensure state agencies can leverage the environmental studies, NATCP, and FCP once the formal CEQA process starts. Close coordination in developing these plans, including who should be part of the ACP, will improve overall efficiency, save time, and allow state agencies to articulate their expectations on how certain outreach, engagement, and consultation should be carried out to meet state requirements. One of the potential roadblocks of efficient permitting is receiving insufficient information for state and local agencies to find development applications complete enough to begin environmental analysis under CEQA. State agency collaboration with BOEM and lessees during phase 3 ensures the information coming out of site assessment and site characterization activities, and NATCP and FCP activities is adequate to inform future development applications and will reduce potential delays.

The most extensive environmental review and permitting effort for the state would be initiated upon a lessee's application for a lease from the CSLC or local trustee of granted public trust lands.[38] For most industrial marine projects in or crossing state waters, including linear seafloor facilities like the subsea

[38] A regional grantee agency is a local government who manages state tidelands and submerged lands in trust on behalf of the state of California pursuant to various statutes and the common law Public Trust Doctrine subject to the oversight of the California State Lands Commission. Additional information about the roles and responsibilities of a grantee local government can be found at: https://www.slc.ca.gov/granted_lands/

cables that would be needed for the offshore wind projects, the initial application would be to the CSLC for a tidelands lease, and under that scenario the CSLC would be the CEQA lead agency. The timing of lessees submitting their applications to the CSLC and any other state or local agencies is important, and the conceptual permitting roadmap attempts to capture what considerations should be assessed to ensure the timing is most efficient.

State and federal joint review of submitted COPs is another opportunity identified in this conceptual permitting roadmap to coordinate and improve efficiency by allowing the state to ensure that the COPs include sufficient information to carry out the analyses that CEQA requires. Concurrent COP review by BOEM and the various local and state lead and responsible agencies can also facilitate joint CEQA-NEPA review, if the state lead agency and BOEM agree that a joint document is appropriate, or can facilitate consistency between the CEQA and NEPA documents should separate documents be deemed appropriate. It is expected that reviews (including CEQA review) and entitlements will be sought from entities including CSLC, CDFW, Coastal Commission, California Independent System Operator, California Public Utilities Commission, one or more regional grantee agencies (e.g., City of Arcata, City of Eureka, City of Morro Bay, Humboldt Bay Harbor, Recreation, & Conservation District, Port San Luis Harbor District (Avila Beach), the County of San Luis Obispo, Humboldt County), and possibly others.

The process and permissions related to the Coastal Commission are unique and merit a separate discussion here. Under the CZMA, an applicant for a COP submits a *consistency certification* to the Coastal Commission before the COP is approved.[39] The applicant submits the certification to the Coastal Commission along with necessary supporting data and information.[40] After the Coastal Commission receives a complete consistency certification and all necessary supporting materials, Commission staff will prepare a report and recommendation for Commission action. After public notice, the Commission, during public hearing, will decide whether to concur with or object to the applicant's consistency certification.[41] If the Coastal Commission objects to the consistency determination, BOEM cannot approve the COP unless the objection is appealed and subsequently overturned by the Secretary of Commerce.[42]

The Coastal Commission's review process for a consistency certification is separate and distinct from the Coastal Commission's consideration of a Coastal Development Permit (CDP), which would require the Coastal Commission to comply with CEQA. For CDPs, the Coastal Commission typically acts as a responsible agency under CEQA and requires that applicants provide their lease from the CSLC for offshore projects, prior to issuing a CDP. The Coastal Commission plans to consider authorizations being sought, such as the CDP at the same time as the hearing for the consistency certification for the COP. For this and other reasons, it is important that CEQA and NEPA processes are closely coordinated or undertaken jointly, to ensure both processes are completed on a timeline that aligns with the desired authorization schedule. Clarity on who the appropriate reviewing and approval agencies will begin to be determined as lessees work with federal, state, and local agencies to develop their ACP as discussed above regarding phase three in the BOEM process. See Appendix A for a list of federal, state, and local

[39] See 30 C.F.R. § 585.627
[40] 15 CFR §§ 930.57(a); 930.58.
[41] 15 CFR §930.60.
[42] CZMA § 307(c)(3)(A), 15 CFR §§ 930.121, 930.122, 930.64.

agencies with a likely role in the permitting process for offshore wind developed in federal waters off the coast of California.

In many respects, the CEQA process mirrors the NEPA process, and there are many opportunities to ensure efficiency and consistency. The following narrative describes the basic CEQA process and timelines that can be expected under a scenario where a separate, project specific EIR were to be prepared for each lessee's proposed project. Similar to the federal NEPA process officially starting with BOEM's publication of an NOI, the public phase of the CEQA process is initiated with the publication by the lead agency of a Notice of Preparation (NOP). There is still uncertainty because of the unknowns that the timing of issuance of an NOI would align with timing of publication of the state's NOP. However, as discussed above and below, a coordinated approach to jointly reviewing SAPs and COPs would help ensure these two timeframes stay aligned to a large extent. After receiving public comment and hosting a public "scoping" meeting, the state lead agency would proceed with preparing a draft EIR, which can take approximately a year or more, assuming the proposed project description is complete, and the baseline environmental conditions are adequately characterized (see above discussion regarding coordination on phase 3 site assessment and joint review of COPs). During development of the draft EIR, coordination among the state lead, responsible, and trustee agencies, and BOEM, should occur to ensure that the EIR addresses and analyzes all resources adequately, and to ensure all feasible and necessary mitigation measures are developed and incorporated. Such joint review, frequently organized through the execution of a "joint review panel" memorandum, is an effective way to facilitate issuance of permits and entitlements by responsible agencies and to ensure alignment with the NEPA lead agency. These joint reviews allow responsible agencies to begin the process of preparing their own permitting documentation early on so that once the EIR is final, those agencies can rely on that EIR with confidence that all issues under that agency's jurisdiction are addressed.

The state would also initiate government to government consultation pursuant to Assembly Bill 52[43] with California Native American tribes – this process could be coordinated with BOEM's "section 106" consultation process undertaken pursuant to the National Historic Preservation Act, to ensure consistency, reduce duplication, and reduce the burden on tribal governments to fully engage. The state and BOEM may also, with consent of consulting tribes, wish to engage in a programmatic level consultation that encompasses multiple lessees and their projects (e.g., one for the central coast WEA and one for the north coast WEA) as a means of increasing efficient engagement and consistent outcomes/agreements.

CEQA requires that once a draft EIR is published, the lead agency must accept comments for a *minimum* of 45 days (can be extended to 60 days, or more at the discretion of the lead agency) and hold at least one public meeting. It is anticipated that several public meetings would be hosted, and potentially those meetings would be held jointly with BOEM, or that the meetings would encompass multiple projects. Depending on the nature and extent of public comment, the timing of preparing the final EIR, which consists of meaningfully responding to all public and agency comments and revising the EIR to incorporate changes the lead agency finds necessary based on information gathered during the public process, can extend for up to a year. During this phase, between the draft and final EIRs, the lessees would begin to submit their applications for permits from responsible agencies. These include, but are not limited to, a Streambed Alteration Agreement (CDFW), CDP (Coastal Commission), Incidental Take

[43] Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014)

Permit (CDFW), Clean Water Act Section 401 permit (Regional Water Quality Control Board), and access easement (State Parks).

Finally, once the state lead agency issues the final EIR, the EIR must be considered by the decision-making body of the lead agency. If the CSLC is the lead agency, it would consider the EIR at one of its regular bi-monthly meetings. At such a meeting, the EIR would be considered for certification as "compliant with CEQA" which includes consideration and approval of the required CEQA Findings (see Public Resources Code section 21081) and a mitigation monitoring program then the decision-making body would proceed to considering approval of the project and issuance of the primary entitlement (e.g., the state tidelands lease). Of note, during the CEQA process, as with NEPA, the lead agency is required to describe and analyze a range of reasonable alternatives to the project as proposed that would result in fewer impacts on the environment. State and federal coordination with respect to the timing of consideration of final project approval, and indeed with respect to what project alternative is ultimately approved by the state and BOEM, is critical to ensuring project integrity and reducing potential confusion. After the state lead agency certifies the EIR, the respective responsible agencies with permitting jurisdiction can then move forward with their own actions, relying on the EIR prepared by the lead agency.

IV. Conceptual Permitting Roadmap

The preceding discussion sheds light on the many entities and review and entitlement touchpoints involved in development of offshore wind projects in BOEM lease areas and makes clear that a permitting roadmap is critical as the state engages in the PACW-1 lease sale as a first phase in contributing to the offshore wind planning goals of 2-5 GW by 2030 and 25 GW by 2045.

Figure 3 illustrates the proposed conceptual permitting roadmap to meet the requirements of AB 525. As discussed above, the roadmap is characterized as conceptual because there are currently many unknowns that make specificity unfeasible at this time, however the process below is intended to establish a structure that allows for addressing new information through public process. Key assumptions underlying the conceptual permitting roadmap are: (1) that interagency memoranda of agreement/understanding and coordination plans are foundational to effective, coordinated, comprehensive, and efficient permitting, and (2) it can be implemented without new laws, though additional state and local agency resources are critical, and resources for stakeholders and tribes can help advance meaningful participation.

Interagency Agreements are the Cornerstone

This conceptual permitting roadmap recognizes that robust interagency agreements that articulate a common vision and shared commitments are the cornerstone of successful large-scale planning efforts. State agencies have begun this coordination process for offshore wind, as described below, and we additionally describe two successful prior coordinated planning efforts that may serve as informative models as this conceptual roadmap continues to take shape and be refined into the future.

For the past six years, at least nine California state agencies have coordinated and collaborated with one another and local and federal partners (including BOEM) to assess the potential for offshore wind development at scale in federal waters off the cost of California. Principals and staff with these state agencies have met regularly over the past few years to share information, problem solve, and jointly

submit written comments on federal leasing activities, conduct outreach and engagement with tribes and the fishing industry, and fund and carry out studies, among other activities. This whole of state government approach is well documented and has led, in part, to BOEM developing the PACW-1 FSN and lease documents, in a manner that reflects the state's diverse priorities and values.

Many of these agencies have coordinated and shared information with one another pursuant to a common interest and confidentiality agreement. Parties to the agreement are the CEC, Coastal Commission, Ocean Protection Council (OPC), CSLC, CDFW, Governor's Office of Planning and Research, Governor's Office of Business and Economic Development, and CNRA. This agreement has enabled critical data sharing and coordination, especially as state agencies assisted the California Coastal Commission in its extensive analyses in 2022 on BOEM's consistency determinations for the WEAs. While entities such as the CPUC and California Department of Parks and Recreation are not parties to the agreement, they are invited to participate in biweekly state agency offshore wind updates meetings.

In addition to these biweekly update meetings that include agency principals and staff, there are two additional recurring series of biweekly meetings: those attended only by agency principals to discuss policy and agency coordination, and those with agency scientists and experts to discuss and evaluate impacts to the ocean and marine environment and ocean users. In addition, since mid-2022, the CEC has been leading biweekly working group meetings with staff from the agencies who are parties to the common interest and confidentiality agreement, the California Public Utilities Commission, and the California Independent System Operator, to develop the content required by AB 525 for the strategic plan due in June 2023.

To date, this collaborative interagency work has been supported in part through appropriations made in the state's fiscal year 2021-22 and 2022-23 budgets, supported by a budget change proposal jointly submitted in fiscal year 2021-22[44] by the CEC, OPC, Coastal Commission, CDFW to support an interagency approach for offshore wind energy and another budget change proposal jointly submitted in fiscal year 2022-23[45] by the CEC, OPC, CSLC, and Governor's Office of Planning and Research. An underlying assumption of the conceptual permitting roadmap is that there will be funding allocated to support agency implementation.

While new funding is expected for roadmap implementation, past state and federal agency collaboration to plan and permit terrestrial renewable energy projects provides a pathway for development and implementation of a permitting roadmap -- without need for new enabling statutes or regulations.

For example, the Desert Renewable Conservation Plan (DRECP)[46] was developed as an interagency landscape-scale planning effort covering 22.5 million acres of land in seven California counties, about half of which are managed by the Bureau of Land Management (BLM). The DRECP was developed by the BLM, the United States Fish and Wildlife Service, the CEC, and CDFW. Collectively, these agencies were referred to as the Renewable Energy Action Team, the REAT Agencies, or just REAT. Chief among REAT priorities was advancing state and federal renewable energy and conservation goals, meeting requirements of federal and state endangered species acts, and facilitating the timely and streamlined

[44] Investments to Accelerate Progress on the State's Clean Energy Goals (ca.gov)
[45] Clean Energy Investments
[46] Desert Renewable Energy Conservation Plan Land Use Plan Amendment and Record of Decision (blm.gov)

permitting of renewable energy projects in specified desert regions in southern California. The REAT Agencies took coordinated action through two memoranda of understanding (one among the REAT Agencies and two signed by the Department of Interior and the State of California)[47] and a planning agreement.[48]

To advance DRECP efforts and expedite development of eligible renewable energy resources,[49] Governor Schwarzenegger issued Executive Order S-14-08 in November 2008,[50]which tasked the CNRA to lead the joint collaboration between the CEC and CDFW, as REAT members, to:

- create an expedited "one stop" process for permitting renewable energy generation power plants whereby instead of filing multiple sequential applications, the CDFW and CEC would create a concurrent application review process, which shall be filed directly at the state level.
- facilitate the "one stop" process by creating a special joint streamlining unit to reduce permit processing times by at least 50% for projects in renewable energy development areas.
- endeavor to include all appropriate federal partners in the expedited permitting process
- develop and publish a Best Management Practices manual to assist project applicants in designing projects to emphasize siting considerations and minimize environmental impacts for desert projects, and
- in conjunction with federal partners and stakeholder groups, develop a conservation strategy that clearly identifies and maps areas for RPS project development and areas intended for long-term natural resource conservation as a foundation for the DRECP.

Executive Order S-14-08 requirements and the process implemented by the CEC and CDFW, and the REAT Agencies, provides a model for the conceptual permitting roadmap, as do the activities of the San Francisco Bay Restoration Regulatory Integration Team (BRRIT).

The BRRIT was formed by the San Francisco Bay Restoration Authority to improve the permitting process for multi-benefit habitat restoration projects and associated infrastructure in the San Francisco Bay and along the shoreline of nine Bay Areas counties. BRITT is comprised of staff from state and federal regulatory agencies with jurisdiction over the projects. Together, these agencies implement a three-step process, which encompasses pre-application meetings with each other and applicants, post-filing coordination with each other and continuing communication with applicants, and permit issuance.[51] A Policy and Management Committee comprised of agency managers coordinates with the BRRIT.

[47] The first MOU between the State of California and Department of Interior, signed on October 12, 2009: https://efiling.energy.ca.gov/GetDocument.aspx?tn=53680&DocumentContentId=37815
[48] The planning agreement between the REAT agencies for the DRECP: https://efiling.energy.ca.gov/GetDocument.aspx?tn=56972&DocumentContentId=37850
[49] Governor Schwarzenegger issued Executive Order S-14-08 on November 17, 2008, which established a target for all retail sellers of electricity within the state to serve 33 percent of their electric load with renewable energy by 2020.
[50] https://www.library.ca.gov/wp-content/uploads/GovernmentPublications/executive-order-proclamation/38-S-14-08.pdf
[51] BRRITFlowChart.jpg (3559×2669) (sfbayrestore.org)

The conceptual permitting roadmap builds from the DRECP, BRITT, and FAST-41 models[52] and envisions formalizing federal, state, and local agency relationships through memoranda of understanding/agreement and coordination plans to determine who does what by when, and how, taking into account unique needs and entitlements for north coast and central coast projects. As described earlier, the roadmap does not encompass transmission permitting beyond immediate onshore infrastructure development nor does it include potential port and waterfront upgrades and related permitting requirements. The agreements are expected, at minimum, to contain the following elements:

***Parties*:** Envision at minimum, all local, state, and federal entities with known or likely environmental review or permitting jurisdiction during the preliminary term (e.g., site assessment surveys), SAP, and COP phases. The structure should allow for flexibility so that entities, with known responsibilities, can join the agreements at any time.

Efficient Permitting: The parties would:

- commit to developing a single permit application checklist and if necessary, one for the north coast and one for the central coast that encompasses requirements of each permitting entity
- develop an integrated process for submittal and review of application materials whereby to the extent feasible, applicants can submit one set of application materials that meets the needs of each agency and are shared and reviewed jointly by the relevant state and local agencies
- create and implement a schedule for interagency coordination on review of site assessment survey plans, SAPs, COPs, CEQA review and compliance, and applications for local, state, and federal entitlements
- implement a project-specific permitting schedule with interim and final milestones, with a commitment to use best efforts to complete state and local permitting — collectively — within two years after the first project application is deemed complete by the lead agency
- create a process for a coordinated review of the completeness of project applications and work with lessees to expeditiously address project application deficiencies
- identify, in consultation with lessees, opportunities for joint environmental documents under NEPA and CEQA
- identify the CEQA lead agency and establish a Joint Review Panel with appropriate parties to facilitate timely, collaborative, and comprehensive review and agreement on impact analyses and mitigation measures

Staff Level Interagency Coordination of Environmental and Permitting Processes: Establish a staff-level working group, modeled on the BRITT and REAT, for coordination and engagement with lessees from pre-filing through permitting to encompass site assessment surveys, SAPs, COPs, CEQA review and compliance, and applications for local, state, and federal entitlements.

State, Federal, and Local Agency Principal Coordination: Designated agency principals to meet regularly pursuant to a set schedule (at least one meeting per quarter and as necessary to achieve an agreed

[52] Another example of an effective multi-agency model is the Dredged Material Management Office (DMMO), which is a joint program of federal and state agencies, created through an MOU, to increase efficiency and coordination between the member agencies and to foster a comprehensive and consolidated approach to handling dredged material management issues in order to reduce redundancy and delays in the processing of dredging permit applications.

upon schedule) to receive updates from lessees and agency staff and to provide a venue to resolve issues and hear from stakeholders and tribes.

***Dispute Resolution*:** Establish a process to allow agency principals to resolve disputes.

Tribal and Stakeholder Engagement: Provide a venue for tribes and stakeholders to publicly engage with agency staff and principals to provide input into the agency processes (separate from and in addition to legally required tribal consultation and public process). As feasible, utilize the efforts of lessees to meet the requirements of their leases with BOEM to implement their NATCP, FCP, and other required outreach and engagement activities. Look to models of early public engagement, such as the CSLC approach to engagement in their environmental review of offshore wind projects being proposed in state waters.[53]

***Visibility and Accountability*:** Designate one state or local agency to establish permitting dashboard pages similar to the federal FAST-41 dashboard pages for status of federal infrastructure projects[54]; but for state and local requirements. This same agency should host a webpage and public docket for each project.

AB 525 requires the CEC, in developing the permitting roadmap, to consult and meaningfully collaborate with all relevant local, state, and federal agencies, including, but not limited to, the Coastal Commission, CDFW, and CSLC, interested California Native American tribes, and affected stakeholders.[55] AB 525 also requires that the CEC provide an opportunity for stakeholder input in the development and communication of the permitting roadmap and an opportunity for public comment on a draft permitting roadmap.

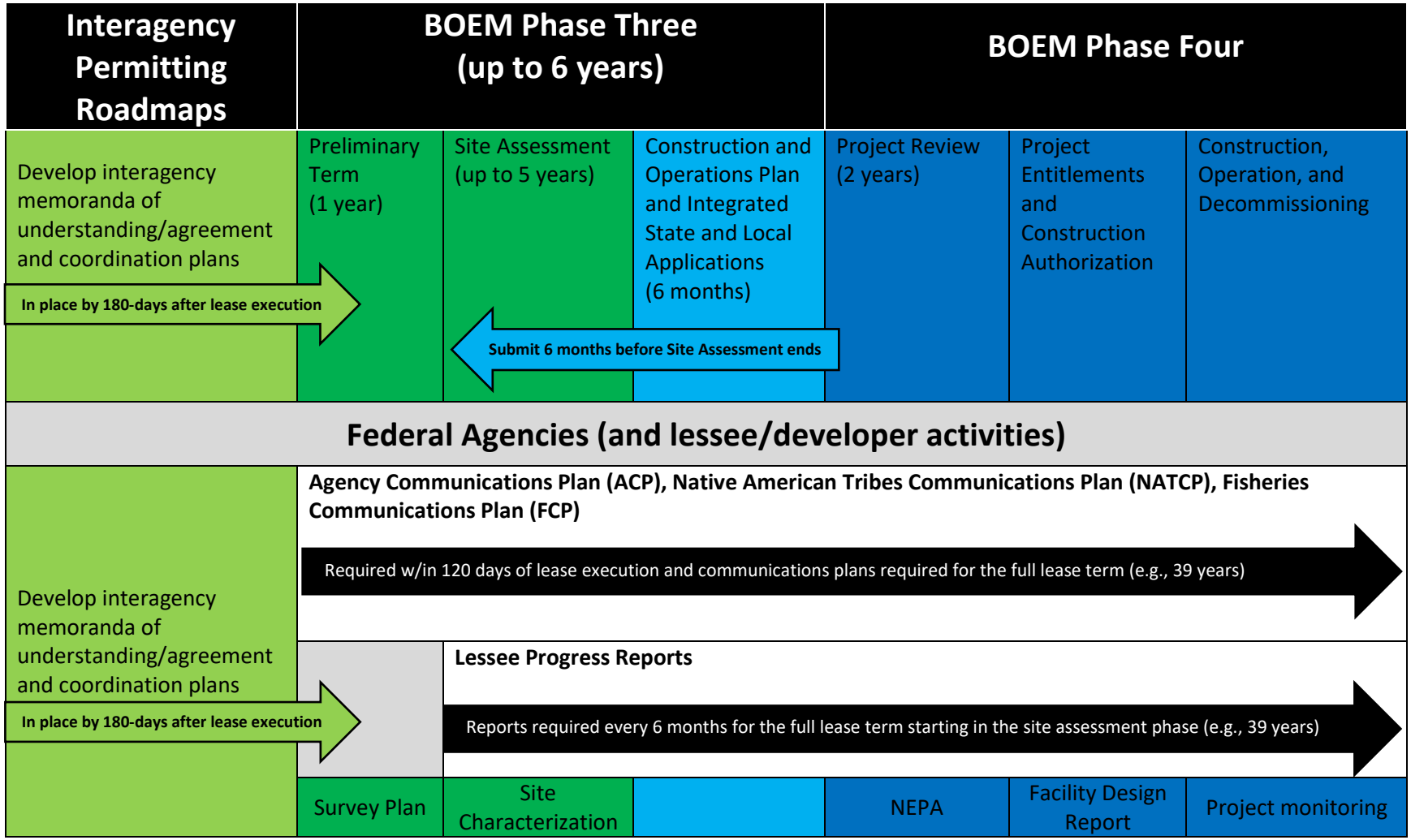
The conceptual permitting roadmap envisions the memoranda of understanding/agreement and coordination plans to be developed and executed by all participating federal, state, and local agencies within 180 days after lease issuance, with an option for agencies to be added as participants to agreements and coordination plans at any time moving forward. Figure 3 shows the conceptual permitting roadmap, including a vision for public, stakeholder, and tribal opportunities to provide input into the development and communication of the environmental review and permitting of offshore wind off the coast of California.

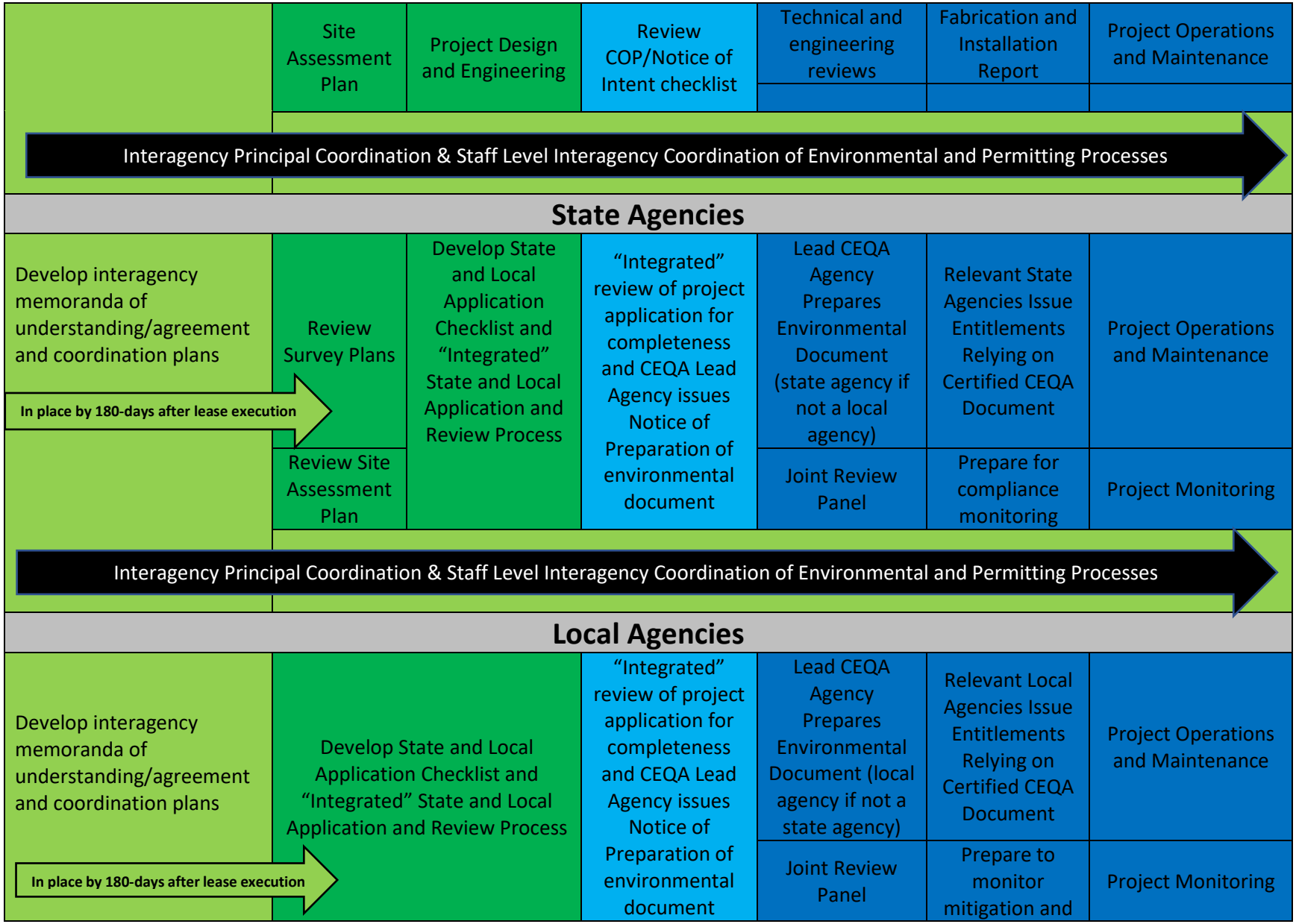
[53] https://www.slc.ca.gov/renewable-energy/offshore-wind-applications/

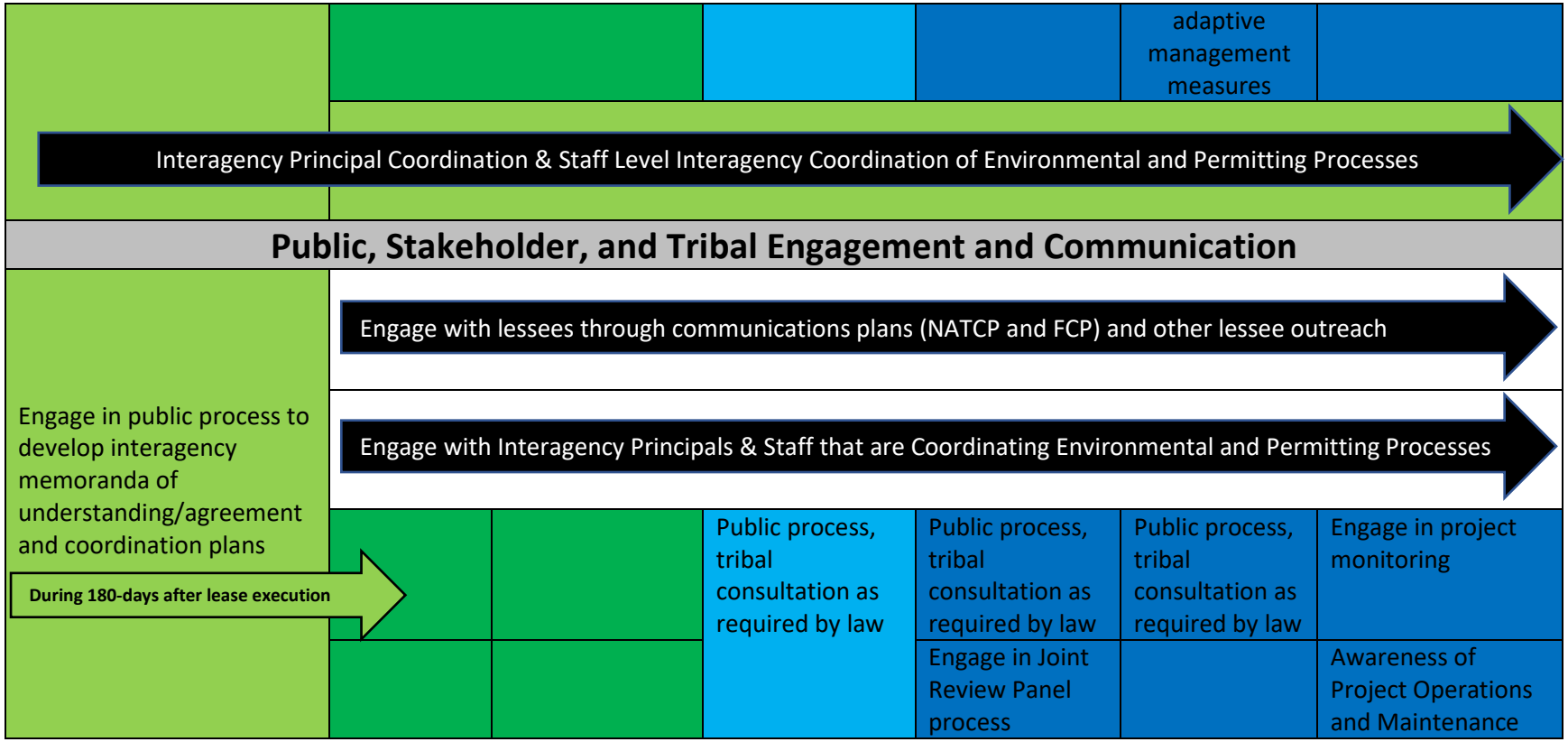
[54] FAST-41 Projects by Project Status | FPISC Reports | Permitting Data Platform (performance.gov); Number of Projects by Lead Agency | FPISC Reports | Permitting Data Platform (performance.gov); Open Data Portal | FPISC Reports | Permitting Data Platform (performance.gov)

[55] Pub. Resources Code, §25991.6 states that the term "stakeholders" includes, but is not limited to, fisheries groups, labor unions, industry, environmental justice organizations, environmental organizations, and other ocean users.

Figure 3: Conceptual Permitting Roadmap Diagram




Site Assessment Plan
Project Design and Engineering
Review COP/Notice of Intent checklist
Technical and engineering reviews
Fabrication and Installation Report
Project Operations and Maintenance
Interagency Principal Coordination & Staff Level Interagency Coordination of Environmental and Permitting Processes
State Agencies
Develop interagency memoranda of understanding/agreement and coordination plans
In place by 180-days after lease execution
Review Survey Plans
Review Site Assessment Plan
Develop State and Local Application Checklist and "Integrated" State and Local Application and Review Process
"Integrated" review of project application for completeness and CEQA Lead Agency issues Notice of Preparation of environmental document
Lead CEQA Agency Prepares Environmental Document (state agency if not a local agency)
Joint Review Panel
Relevant State Agencies Issue Entitlements Relying on Certified CEQA Document
Prepare for compliance monitoring
Project Operations and Maintenance
Project Monitoring
Interagency Principal Coordination & Staff Level Interagency Coordination of Environmental and Permitting Processes
Local Agencies
Develop interagency memoranda of understanding/agreement and coordination plans
In place by 180-days after lease execution
Develop State and Local Application Checklist and "Integrated" State and Local Application and Review Process
"Integrated" review of project application for completeness and CEQA Lead Agency issues Notice of Preparation of environmental document
Lead CEQA Agency Prepares Environmental Document (local agency if not a state agency)
Joint Review Panel
Relevant Local Agencies Issue Entitlements Relying on Certified CEQA Document
Prepare to monitor mitigation and
Project Operations and Maintenance
Project Monitoring


adaptive management measures
Interagency Principal Coordination & Staff Level Interagency Coordination of Environmental and Permitting Processes
Public, Stakeholder, and Tribal Engagement and Communication
Engage with lessees through communications plans (NATCP and FCP) and other lessee outreach
Engage with Interagency Principals & Staff that are Coordinating Environmental and Permitting Processes
Engage in public process to develop interagency memoranda of understanding/agreement and coordination plans
During 180-days after lease execution
Public process, tribal consultation as required by law
Public process, tribal consultation as required by law
Public process, tribal consultation as required by law
Engage in project monitoring
Engage in Joint Review Panel process
Awareness of Project Operations and Maintenance

Appendix A: Federal, State, and Local Agencies

Table A-1: Agencies and the Permits and Actions Likely Required by Them for Wind Energy Projects Originating in Federal Waters Offshore of California

Permit or Required Regulatory Authorization	Primary Statute	Jurisdiction
Federal Agencies		
Bureau of Ocean Energy Management (BOEM)		
Limited or Commercial Outer Continental Shelf (OCS) Lease	• OCS Lands Act • Energy Policy Act of 2005	OCS Federal waters
National Environmental Policy Act (NEPA) Determination	NEPA (40 Code of Federal Regulations, Parts 1500-1508)	Federal actions
U.S. Fish and Wildlife Service (USFWS)		
Mandatory consultation	• Fish and Wildlife Coordination Act • Endangered Species Act • Federal Power Act of 2005 • Migratory Bird Treaty Act	• Nationwide • Federal waters and actions • Endangered species and habitat
Eagle Take Permit	Bald and Golden Eagle Protection Act	Nationwide
National Marine Fisheries Service (NMFS) (also known as NOAA Fisheries, an office of the National Oceanic and Atmospheric Administration)		
Essential Fish Habitat Mandatory Consultation and Assessment	Magnuson-Stevens Fisheries Conservation and Management Act	Living marine resources within the U.S. Exclusive Economic Zone
NMFS and USFWS		
Marine Mammal Protection Act (MMPA) Permit (Incidental Take Authorization)	MMPA (16 U.S. Code 1361-1407)	• Federal waters • U.S. citizens on the high seas • Importation of marine mammals and marine

Permit or Required Regulatory Authorization	Primary Statute	Jurisdiction
		mammal products into the U.S.
NMFS and/or USFWS		
§ 7 Endangered Species Act (ESA) Consultation, § 10 Take Permit if consultation finds a project would result in take	• ESA • Fish, marine mammal, seabird consultations	• NMFS for marine and anadromous species • USFWS for select seabirds, terrestrial and freshwater species
U.S. Army Corps of Engineers (ACOE)		
Nationwide or Individual Clean Water Act (CWA)§ 404 Permit and ACOE § 10 Permits	Section 404 CWA; Section 10, Rivers & Harbors Act	Nationwide
U.S. Coast Guard		
Private Aids to Navigation (PATON) Permit	Ports and Waterways Safety Act	Vessel traffic and marine environment safety and protection
Federal Aviation Administration (FAA)		
FAA No-Hazard Determination to Air and Navigation	Federal Aviation Act	Air traffic and airspace uses
Advisory Council on Historic Preservation		
Section 106 Consultation and Memorandum of Agreement	National Historic Preservation Act	Federal actions (federally recognized tribes only)
Environmental Protection Agency		
Clean Air Act (CAA) General Conformity	Clean Air Act	Federal actions
Department of Defense (DoD)		
DoD Siting Clearinghouse review	Mission Compatibility Evaluation 32 Code of Federal Regulation 211 - DoD Compatibility Approval	Military installations and areas
State Agencies		

Permit or Required Regulatory Authorization	Primary Statute	Jurisdiction
California Coastal Commission		
Certification of Consistency, Coastal Zone Management Act (CZMA) Federal Consistency Determination	16 U.S.C. §1456 (CZMA §307)* *CZMA is a Federal law	Statewide. CZMA allows for review of Federal activities or federally-permitted activities, regardless of location, that may impact California's land use, water use, or natural resources in the coastal zone.
Coastal Development Permit	California Coastal Act, Public Resources Code §30000 et seq. CEQA Certified Regulatory Program	Statewide. Land and water in the Coastal Zone under the Coastal Act (~3 nm) except for San Francisco Bay
State Lands Commission		
State Tidelands Lease	Public Resources Code, §2000 et seq.	• State marine waters except those on legislatively granted lands • Ungranted tidelands, submerged lands, and beds of navigable lakes and waterways • From mean high tide line out to 3 nautical miles (nm)
Geophysical Survey Permit	Pub. Resources Code, § 6212.3 & 6826. California Code of Regulations, Title 2, § 2100.02 et seq.	State marine waters including those on legislatively granted lands and inland waters within the jurisdiction of the Commission.
California Environmental Quality Act (CEQA)	Pub. Res. Code § 21000 et seq.	State and local discretionary projects
California Department of Fish and Wildlife		

Permit or Required Regulatory Authorization	Primary Statute	Jurisdiction
Incidental Take Permit, California Endangered Species Act (CESA) Consultation	CESA, California Fish and Game Code §§ 2080 and 2081	Statewide. Conservation, protection, and management of fish, wildlife, plants, natural communities. Marine and estuarine waters.
Lake and Streambed Alteration Agreement	Fish and Game Code § 1602	Statewide. Conservation, protection, and management of fish, wildlife, plants, natural communities. Marine and estuarine waters.
State Water Resources Control Board (SWRCB)		
§ 401 Water Quality Certification	Clean Water Act § 401; Cal. Code Regs. tit. 23, § 3.28	Statewide to 3 nautical miles. SWRCB reviews projects overlapping multiple of its 9 regions/boards. If project is in one region, the appropriate Regional Water Quality Control Board (Regional Water Board) will review.
National Pollutant Discharge Elimination System (NPDES) Permit	Clean Water Act	Nationwide
California Public Utilities Commission (CPUC)		
Certificate of Public Convenience and Necessity (CPCN) or Permit to Construct	Public Utilities Act, Public Utilities Code, section 1001 et seq, General Order 131-D	Statewide. Regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies. Investor-owned utility grid infrastructure connections (e.g., gen-tie lines,

Permit or Required Regulatory Authorization	Primary Statute	Jurisdiction
		substations, switching stations).
California Independent System Operator (CAISO)		
Interconnection Agreement	Generator Interconnection Agreement per CAISO's Tariff as regulated by the Federal Energy Regulatory Commission	CAISO balancing authority areas. New electricity generating facilities.
Local Air Districts & California Air Resources Board (CARB)		
Air permit	Federal Clean Air Act	Statewide. CARB guides 35 local air pollution control districts or air quality management districts, which issue the permit.
Local Agencies		
San Luis Obispo County and cities in San Luis Obispo County		
Encroachment or conditional use permit, lease, or easement	Varies by jurisdiction	
City of Morro Bay		
Encroachment or conditional use permit, lease, or easement	• Titles 13 to 17 of the Morro Bay Municipal Code. • Pub. Res. Code § 30600. • Morro Bay Muni. Code § 17.58.030	Morro Bay Harbor
Humboldt County and cities in Humboldt County		
Encroachment or conditional use permit, lease, or easement	Varies by jurisdiction	
Humboldt Bay Harbor, Recreation and Conservation District		
Harbor permit or tideland lease	Humboldt Bay Harbor, Recreation and Conservation District Act, Pub. Res. Code § 6312	Humboldt Bay Harbor

Permit or Required Regulatory Authorization	Primary Statute	Jurisdiction
Other (for local agency entitlements that would be necessary beyond Humboldt and San Luis Obispo counties)		

Appendix B: Offshore Wind Background

This appendix includes background on BOEM's offshore wind leasing process in California to date as well as examples of different floating offshore wind technologies.

Past BOEM Activities Related to California: Phases 1 and 2 in the BOEM Process

Since 2016, the BOEM California Intergovernmental Renewable Energy Task Force has been instrumental in informing and shaping BOEM's approach toward initiating a lease sale in the Pacific OCS.

On October 18, 2022, the Department of the Interior announced that BOEM would hold an offshore wind energy lease sale on December 6, 2022, for two lease areas within the Humboldt Wind Energy Area and three lease areas in the Morro Bay Wind Energy Areas, collectively "the WEAs." Figure B-1 shows the WEAs and lease sale areas. The WEAs are located entirely within federal waters. The Morro Bay WEA is approximately 20 miles off the coast of Cambria, in San Luis Obispo County. The Humboldt WEA is located approximately 20 miles off the coast of Eureka, in Humboldt County.

Background on the identification of the WEAs and California state agency actions to inform the content of the *Pacific Wind Lease Sale 1 (PACW-1) for Commercial Leasing for Wind Power on the Outer Continental Shelf in California - Final Sale Notice* (PACW-1 FSN)[56] are described in more detail in the *Proposed Sale: Pacific Wind Lease Sale 1 for Commercial Leasing for Wind Power on the Outer Continental Shelf in California*[57] and the *2018 BOEM Call for Information and Nominations*.[58]

On December 7, 2022 BOEM announced the five provisional winners of the lease sale.[59]

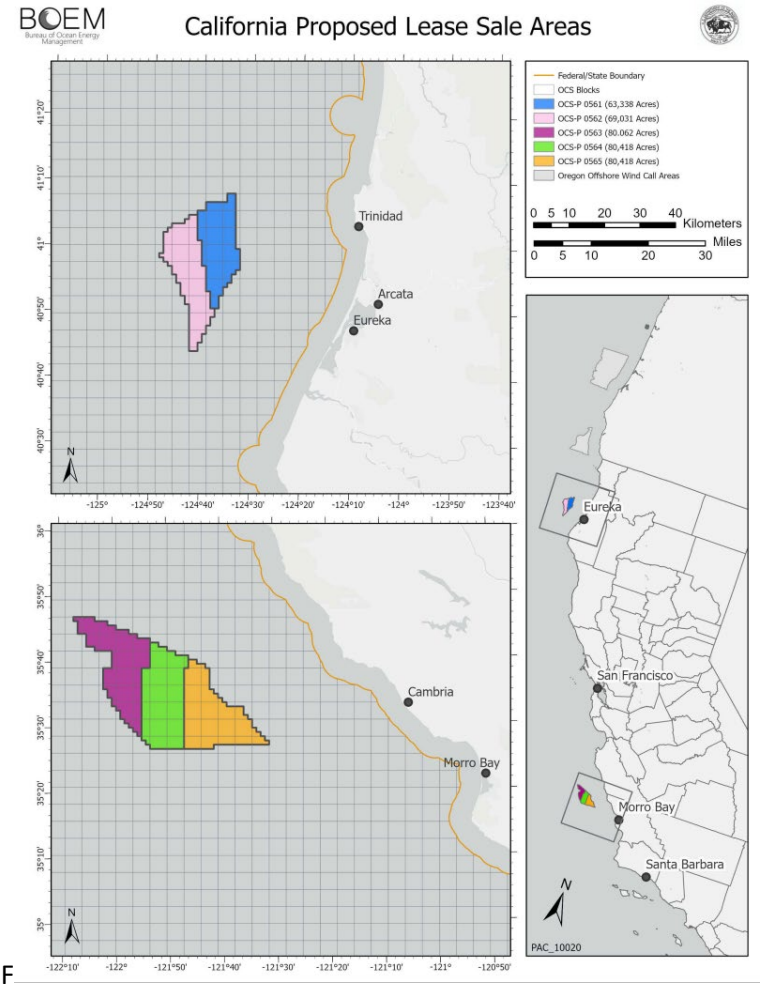
[56] Federal Register: Pacific Wind Lease Sale 1 (PACW-1) for Commercial Leasing for Wind Power on the Outer Continental Shelf in California-Final Sale Notice

[57] See https://www.regulations.gov/ and enter **BOEM-2022-0017** in the search bar.

[58] Federal Register Notice (October 19, 2018)

[59] https://doi.gov/pressreleases/biden-harris-administration-announces-winners-california-offshore-wind-energy-auction

Figure B-1: California Proposed Lease Sale Areas for the PACW-1 Lease Sale



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Source: BOEM website, [CA PSN Lease Area Maps (boem.gov)]

BOEM prepared consistency determinations required by the Coastal Zone Management Act of 1972 (CZMA) and environmental assessments under the National Environmental Protection Act (NEPA) for the WEAs. [60] BOEM's consistency determinations were reviewed by the California Coastal Commission for consistency with the enforceable policies of the state's coastal program, and the Coastal Commission conditionally concurred with BOEM's consistency determinations in April and June 2022. As explained in the PACW-1 FSN, the environmental assessments focus on potential environmental consequences of site characterization activities (i.e., biological, archaeological, geological, and geophysical surveys and

[60] The California Coastal Commission application of CZMA to BOEM's consistency determinations and the final reviews and adopted conditions and findings for each WEA: Humboldt WEA Coastal Commission Consistency Determination Adopted Findings and Conditions and
Morro Bay WEA Coastal Commission Consistency Determination Adopted Findings and Conditions

core samples) and site assessment activities (i.e., installation of meteorological buoys) expected to take place after issuance of wind energy leases in the WEAs, during the third phase of BOEM's process.

The PACW-1 FSN further explains that concurrently with its preparation of the environmental assessments, BOEM conducted federally required consultations under the Endangered Species Act (ESA) and the Magnuson-Stevens Fishery Conservation and Management Act regarding potential impacts to listed species, designated critical habitat, and essential fish habitat. It also explains that BOEM prepared and executed a programmatic agreement (PA) to guide its consultations under Section 106 of the National Historic Preservation Act of 1966, which requires federal agencies to consider the effects on historic properties of projects they carry out.[61] Consulting parties include the State Historic Preservation Officers and Tribal Historic Preservation Officers. The PAs for the WEAs provides for consultations to continue through the construction and operations phase.

Ultimately, BOEM's phase one and two actions leading to development of the PACW-1 FSN and preparation to allow it to issue leases after the December 6, 2022, lease sale, required it to comply with at least five different federal laws (and implementing regulations) and engage in extensive outreach and engagement with local, state, and federal agencies, tribes, the fishing industry, and other stakeholders, as described in the PACW-1 FSN.

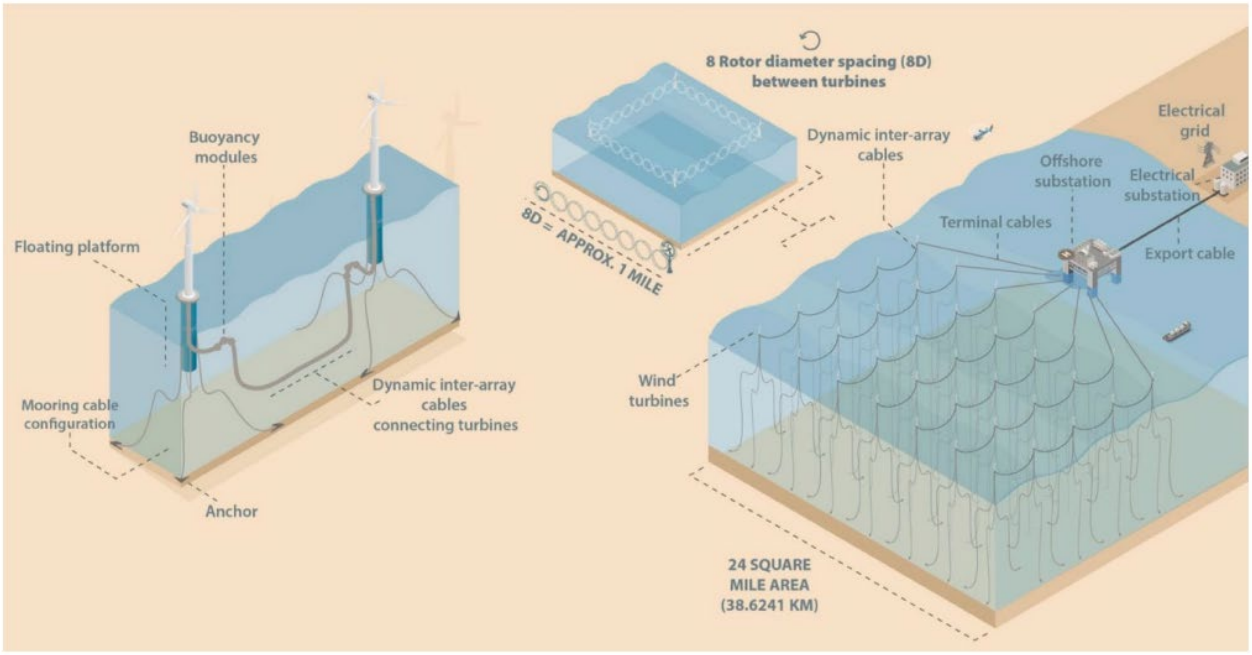
BOEM is currently poised to complete phase two activities with lease issuance and begin phase three activities for the PACW-1 lease sale areas. As the state and BOEM work together to identify additional potential areas in federal waters for offshore wind energy development, the structure and process envisioned in the conceptual permitting roadmap can apply to pertinent activities in the first and second phases of BOEM's regulatory process that contribute to an efficient permitting approach in the third and fourth phases as described in greater detail in the body of this document.

Examples of Floating Offshore Wind Energy Technologies

The schematic shown in Figure B-2 is an example of a hypothetical floating offshore wind project, though no floating offshore wind projects have been developed anywhere in the world at the scale shown in the figure. To put this figure into perspective, assuming that individual floating offshore wind turbines will be deployed at a scale of 15 megawatts, more than 300 floating turbines would need to be installed to meet the upper range of the AB 525 offshore wind planning goal for 2030 of 5 GW and more than 1,500 to meet the 2045 planning goal of 25 GW.

[61] See section V. Environmental Review of the Federal Register: Pacific Wind Lease Sale 1 (PACW-1) for Commercial Leasing for Wind Power on the Outer Continental Shelf in California-Final Sale Notice

Figure B-2: Schematic of an Example Full-Scale Floating Wind Energy Development

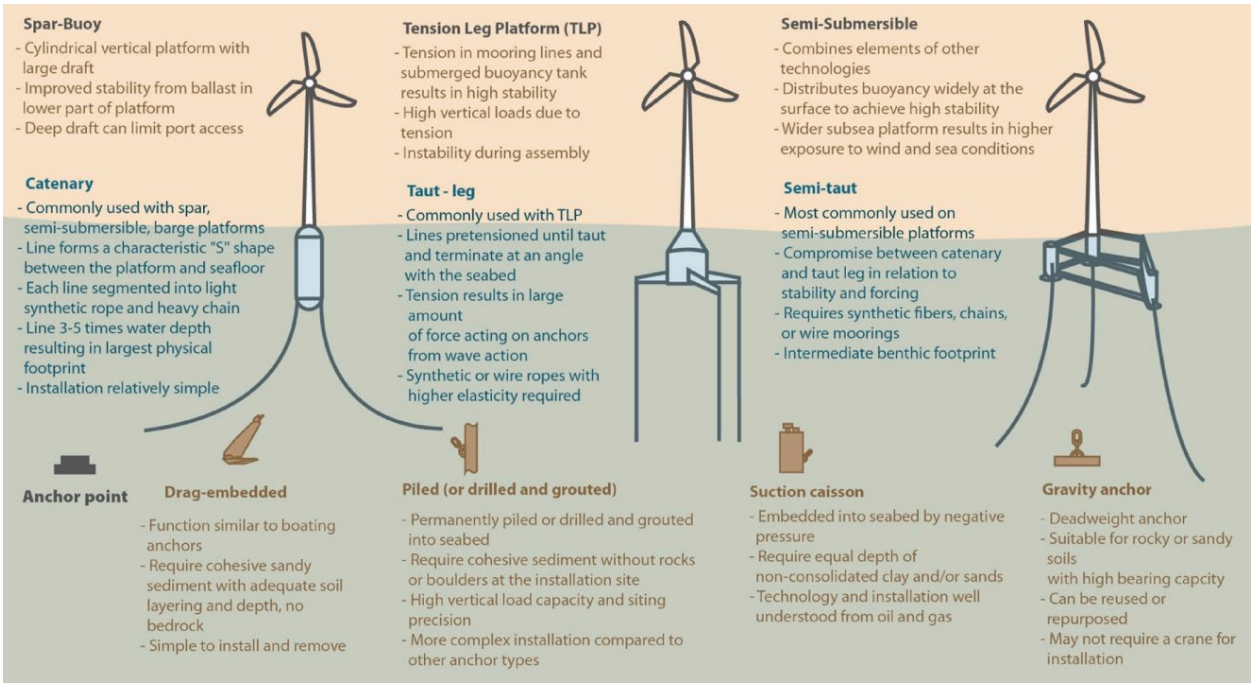


Source: Maxwell, Sara M., Francine Kershaw, Cameron C. Locke, Melinda G. Conners, Cyndi Dawson, Sandy Aylesworth, Rebecca Loomis, and Andrew F. Johnson. 2022. "Potential Impacts of Floating Wind Turbine Technology for Marine Species and Habitats." Journal of Environmental Management 307 (2022) 114577. https://doi.org/10.1016/j.jenvman.2022.114577.

While the global floating offshore wind market is still in early stages of development, the technology is projected to quickly advance, with some estimates that the global floating offshore wind energy installed capacity could grow to more than 40 GW by 2036. [62] Figure B-3 is a diagram of some of the known floating platform foundations and related mooring and anchoring systems, and are shown here as examples, though the exact designs used in projects will depend on the technologies developers pursue following surveys of the ocean and seafloor conditions of lease areas and during project specific engineering and design.

[62] Guidehouse. May 2022. California Supply Chain Needs Summary https://efiling.energy.ca.gov/GetDocument.aspx?tn=242928&DocumentContentId=76513.

Figure B-3: Diagram of Mooring, Anchoring, and Floating Platform Foundations



Source: Maxwell et. al, 2022.