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Handbook of Marine Hydrokinetic Regulatory Processes

August 2020

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1 Introduction

While traditional hydropower is a well-established industry, advanced water power technologies that produce electricity from moving water without the use of a dam are now emerging in the renewable energy sector. These technologies, known as hydrokinetics, generate electricity from the motion of waves, the free flow of tides, ocean currents, or inland waterways. As part of its broad effort to advance water power technologies, the US Department of Energy (DOE) is funding various projects designed to address key issues associated with hydrokinetic technologies that harness renewable energy from the nation's oceans and rivers.

Central to this effort is the evaluation of permitting and licensing processes used in siting hydrokinetic projects. This handbook is an informational tool intended to help stakeholders easily find and understand federal and state authorization processes. It outlines current federal and state regulatory requirements, provides clear, concise descriptions of the authorization processes, and identifies the agencies involved in these processes. This handbook was originally prepared by Pacific Energy Ventures, LLC (PEV) and published in 2009 as *Siting Methodologies for Hydrokinetics: Navigating the Regulatory Framework.* In the three years following its official publication, PEV updated versions of this handbook in an online wiki format. In 2020, Pacific Northwest National Laboratory updated the publication to the copy presented here, to reflect significant changes in the regulatory environment and refresh the publication style.

Various state and federal agency officials involved in the regulatory processes reviewed draft versions of the 2009 handbook and provided feedback on its accuracy, completeness and clarity. Reviewers were also asked to comment on how the regulations apply specifically to hydrokinetics and how the various authorizations connect to and integrate with each other. Staff at the relevant agencies were also offered the opportunity to review this updated version. The feedback and recommendations provided by those who reviewed this document are greatly appreciated, and the content has been revised to reflect the reviewers' input as accurately as possible.[1]

While every effort has been made to ensure the accuracy of this document, readers should be aware that changes in statutes, rules, or regulations may have taken effect after publication of this handbook. Readers should also keep in mind that this handbook provides a high-level summary of federal and state authorizations *likely* to be applicable to hydrokinetic projects, and individuals will need to determine the specific regulatory requirements relevant to a particular project. Because each situation will vary, not all requirements in this handbook will apply to every project, and other requirements not addressed in this handbook may also be applicable.

1.1 Scope

This handbook provides an overview of the federal and state regulatory framework for hydrokinetic projects on state submerged lands and on the Outer Continental Shelf (OCS). State submerged lands generally include the seabed and waters extending three nautical miles seaward from shore.[2] The OCS includes all submerged lands, subsoil, and seabed between the seaward extent of state waters and the seaward extent of United States jurisdiction (approximately 200 nautical miles from shore). The contents of this handbook include the principal federal authorizations for siting hydrokinetics, as well as the principal state authorizations for nine key states where hydrokinetic development is already underway or is likely to occur in the near future.

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[2] Except in Texas and the Gulf coast of Florida, where state waters extend three marine leagues from shore.

1.2 Handbook Organization

Federal authorizations for hydrokinetic projects are presented in Chapter 3, and the chapters that follow address applicable state authorizations for nine key states where hydrokinetic development is already underway or is likely to occur in the near future: Alaska, Washington, Oregon, California, Hawaii, Maine, Massachusetts, Rhode Island, and Florida.[3] In each state chapter, information about local and federal statutes that tie into the state permitting processes is also included, as applicable.

Each chapter begins with an *Introduction* and a *Summary Table of Authorizations*. Next, an overview of each principle authorization is provided. These descriptions include the authorization's applicability to hydrokinetic projects, identification of the lead agency, a summary of the application and review processes, the expected process time, and a reference to the primary legal authority. The authorization descriptions in the federal chapter are followed by *Regulatory Roadmaps*, which are process schematics that model the timing and sequence of the application filing and review processes for the principle federal reviews and authorizations.[4] Finally, an *Agency Contact List*, which includes a web address, mailing address, and phone number for the agencies mentioned, is provided at the end of each chapter.

1.3 Commonly Used Terms

The following terms are used frequently throughout this handbook. Each term listed is followed by a brief description of its meaning in the context of this handbook.

Authorization: permit, license, or other form of permission.

Federal Action: any action carried out, authorized, or funded by a federal agency.

Action Agency: the agency performing, funding, or authorizing the proposed action. Action agencies may structure their respective authorization processes in different ways.

Lead Agency: the state or federal agency responsible for leading the review of an application for a certain authorization, and for issuing a decision on the authorization.

Cooperating Agencies: under the National Environmental Policy Act (NEPA), any other federal, state, or local agencies or Tribes that are designated as "cooperating" by the lead agency in the environmental review because they have jurisdiction by law and special expertise with respect to any environmental issue.

Participating Agencies: government agencies likely to participate with the action agency in the authorization review process.

Coordinating Parties: interested parties (e.g., non-governmental organizations) who choose to participate in the consultation process of a project authorization.

Relevant Agencies: may include, but are not limited to the following: Federal Energy Regulatory Commission (FERC), Department of the Interior (DOI), Bureau of Ocean Energy Management (BOEM), US Army Corps of Engineers (COE), US Fish and Wildlife Service (FWS), National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS), US Coast Guard (USCG), Bureau of Indian Affairs (BIA), Environmental Protection Agency (EPA), National Park Service (NPS), US Forest Service (USFS), Advisory Council on Historic Preservation (ACHP), Bureau of Reclamation (BOR), Department of Defense (DOD), Bureau of Land Management (BLM), and tribal, state and local government authorities.

[3] The Coastal Zone Management Act and the Clean Water Act are federal statutes that authorize states to implement some of the statutes' respective regulations. A general explanation of these two statutes is included in the Federal Authorizations chapter. Discussion of how the state agencies' implement these federally-delegated authorities is reserved for each state chapter.
[4] Process times are approximate; actual times will vary by project.

2 Fundamentals of the Regulatory Framework

Like most energy facilities, hydrokinetic projects are developed in phases. Site assessment is the first step; once a site is selected, the authorization (i.e., permitting and licensing) processes begin. Construction, installation, and operations may not begin until a project receives all the necessary authorizations. All stages of project development are considered in authorization reviews; therefore, the procedures for authorizing hydrokinetic projects involve rigorous environmental review and a substantial level of agency and stakeholder consultation. Complying with regulatory requirements can be a time- and cost-intensive process, and project proponents should be prepared to implement monitoring, mitigation measures, and/or alternative courses of action to reduce and avoid adverse impacts. Strong coordination between project proponents, agency staff and stakeholders can make the process more efficient for all parties.

2.1 General Authorization Process

The particular authorizations and level of agency consultation will vary for each project; however, most authorization processes share the same general components:

1. **Application Submission:** Project proponent prepares an application package (the required application form and supporting documentation) and submits it to the lead agency;
2. **Agency Review:** Lead agency reviews the application for administrative completeness, and performs a review and evaluation of the technical content of the application and any accompanying documentation (e.g., an environmental assessment);
3. **Agency Consultation:** Lead agency consults with any cooperating and participating agencies having related policy interests or regulatory responsibilities in the proposed activity. The lead agency may prepare and circulate draft conditions for the proposed activity;
4. **Public Consultation:** Lead agency seeks input from interested parties. This is often done by soliciting public comment on the proposed activity, which may involve a public hearing or comment period;
5. **Decision:** After reviewing comments from coordinating agencies, participating agencies, and interested parties, the lead agency issues a final decision. If the statutory and regulatory criteria for issuing the authorization have been satisfied, then the agency issues an authorization for the proposed activity.[1] If any of the criteria have not been satisfied, the agency denies authorization of the proposed activity.

2.2 Consultation

Consultation with federal, state, and local agencies along with stakeholders is a critical component of any authorization process and generally involves analyzing a proposed project to determine the potential effects. Consultation may also include developing effective studying and monitoring, adaptive management, and mitigation measures to prevent, minimize and/or mitigate adverse project effects. Consultation should start as early as possible to ensure that all affected stakeholders are identified and engaged, all issues are adequately addressed, and the environmental documentation contains sufficient information to support all the necessary authorizations.

This handbook describes *formal consultation* procedures for licensing and permitting hydrokinetics. Formal consultation is required by the regulatory procedures that guide an authorization process. While *informal consultation* is not required by regulation, it is an extremely valuable method of initiating early engagement and coordinating information needs for the formal consultation and review processes.

[1] Authorization approval may have conditions with which the project must comply, such as ongoing environmental studies and monitoring.

3 Federal Authorizations

3.1 Background on Federal Jurisdiction of Hydrokinetics

Hydropower in the United States has traditionally fallen under the jurisdiction of FERC. However, development of new renewable energy technologies like hydrokinetics has necessitated new rules and regulations. The Energy Policy Act of 2005 (EPAct) was enacted, in part, to provide for federal regulation of new renewable energy technologies.

While EPAct did provide for the creation of new regulations for renewable energy, it also resulted in some confusion over federal jurisdiction on the OCS.[1] In accordance with the provisions of EPAct, FERC is responsible for licensing, inspecting, and overseeing hydrokinetic activities. However, EPAct also amended the Outer Continental Shelf Lands Act (OCSLA) to grant the Secretary of the Interior discretionary authority to regulate the production, transportation, or transmission of renewable energy on the OCS. Within DOI, this authority is delegated to BOEM.

Essentially, EPAct conferred regulatory authority for hydrokinetics to both FERC and DOI, but the law did not clearly specify the scope of each agency's jurisdiction. However, FERC and DOI collaborated to resolve the issue, and in April 2009, DOI and FERC signed a Memorandum of Understanding (MOU) clarifying the scope of each agency's respective responsibilities for regulating renewable energy projects on the OCS.[2]

Under the agreement, FERC has authority to issue licenses for all hydrokinetic projects (including those on state submerged lands and on the OCS), and DOI has authority to issue leases and easements for hydrokinetic projects located partially or wholly on the OCS. DOI and FERC also prepared a guidance document to explain and provide more detail about their respective roles in authorizing hydrokinetic activities on the OCS.[3] As hydrokinetic projects are authorized, the guidance document will be updated to include additional information relating to requirements for project design, construction and operations.

3.2 Introduction to Federal Agencies and Authorizations

Depending on the project type, scale, and location, a number of federal agencies may be involved in authorizing hydrokinetic development activities. As noted previously, FERC has licensing jurisdiction over hydrokinetic projects in state waters and on the OCS. Hydrokinetic projects located wholly or partially on the OCS also require authorization from BOEM. Depending on the scale and type of activity, BOEM may authorize hydrokinetic activities on the OCS with a renewable energy lease, a right-of-way (ROW) grant, or right-of-use and easement (RUE) grant.

Authorization from COE is almost always required for hydrokinetic projects, regardless of whether or not the project requires authorization from FERC or BOEM. Any structure placed in navigable waters must be authorized by COE with a Rivers and Harbors Act Section 10 Permit.[4] Also, a Clean Water Act (CWA) Section 404 Permit from COE is required for the discharge of dredged or fill material associated with installing hydrokinetic facility components, such as subsea transmission cables and device anchors. In addition, all obstructions to navigable waters must be marked to navigation aids, so hydrokinetic facilities will need a Private Aid to Navigation (PATON) Permit from USCG.

Comprehensive analysis and review are required before a license from FERC, a lease from BOEM, and/or a permit from COE may be issued. In reviewing license and permit applications, federal action agencies like FERC, BOEM, and COE must perform a National Environmental Policy Act (NEPA) analysis of the proposed project. A NEPA analysis is a comprehensive review process designed to assess the environmental impacts of a proposed action and

[1] The OCS includes all submerged lands, subsoil, and seabed between the seaward extent of state waters and the seaward extent of US jurisdiction (approximately 200 nautical miles from shore).
[2] The MOU is available online: https://www.boem.gov/sites/default/files/environmental-stewardship/Environmental-Studies/Partnerships/DOI_FERC_MOU.pdf.
[3] This guidance is available online: https://www.boem.gov/BOEM-Newsroom/Press-Releases/2012/BOEM-FERC-staff-guidelines-pdf.aspx.
[4] Areas that are leased from BOEM may or may not require a § 10 Permit. An evaluation of the impact of the proposed activity and/or structures will determine whether or not a permit is required, 33 CFR § 322.5(f).

to provide documentation of that assessment. Impacts to the human environment, which includes commercial and recreation activities, as well as cultural and historic resources, are also considered in the NEPA evaluation.

The NEPA process provides opportunities for agencies and stakeholders to review and comment on a proposed project and address environmental concerns and permitting issues. Environmental documentation, in the form of an environmental assessment (EA) or an environmental impact statement (EIS), provides a record of the NEPA review to guide federal action agencies in their decision-making.

In addition to the NEPA process, certain federal environmental protection statutes must be considered in regard to siting hydrokinetic projects. For example, Section 106 of the National Historic Preservation Act (NHPA) requires federal action agencies to identify and assess potential effects on historic resources. In addition, pursuant to the Magnuson-Stevens Fishery and Conservation Act (MSA), project proponents must consult with NMFS on actions that may adversely affect essential fish habitat (EFH). Concurrent with the EFH consultations, projects that propose to alter a body of water are also required to undergo review by FWS regarding fish and wildlife impacts under the Fish and Wildlife Coordination Act (FWCA).

Under Section 7 of the Endangered Species Act (ESA), project proponents must consult with NMFS and FWS to evaluate impacts on endangered species and critical habitats. Similarly, the Marine Mammal Protection Act (MMPA) requires project proponents to consult with NMFS and FWS regarding potential impacts to marine mammals, and the Migratory Bird Treaty Act (MBTA) calls for consultation with FWS regarding potential impacts to migratory birds. Finally, hydrokinetic projects must comply with two federally delegated statutes. Pursuant to Section 307 of the Coastal Zone Management Act (CZMA), federal actions (e.g., issuance of a FERC license) must be reviewed to ensure consistency with state coastal management policies. Additionally, CWA Section 401 requires that federally authorized activities be reviewed to ensure they will not violate state water quality standards.

With all authorizations, a high level of stakeholder involvement in the consultation process can be a key factor to successful project planning and siting. By collaboratively discussing and addressing the issues associated with a proposed project, effective studying, monitoring, mitigation, and adaptive management measures can be developed and implemented throughout the project life.

3.3 Federal Maritime Statutes That Can Affect Development After Licensing

There are also some federal maritime statutes that can affect marine hydrokinetic (MHK) project development after licenses have been issued. One example is the Merchant Marine Act of 1920 (46 US Code; Chapter 501; § 50102), also known as the Jones Act after the Senator who introduced the legislation. The Jones Act is a federal statute that, among other things, requires shipping between U.S. ports to be conducted by U.S.-flagged ships.[5]

The Jones Act applies to transportation of merchandise between "points" in the United States, including all ports in addition to any place within 3.0 nautical miles of the coast. While the original Act uses the term "ports," OCSLA extended this meaning to "points" such as stationary offshore oil and gas platforms. Tidal and wave energy deployments within territorial seas trigger Jones Act jurisdiction and review.

There are additional federal maritime laws that could apply to MHK activities with similar effects as the Jones Act. The Passenger Vessel Services Act (46 US Code; Chapter 551; § 55103) requires a US-flagged vessel for passenger transport between ports or places. The Towing Statute (46 US Code; Chapter 551; § 55111) also requires a US-flagged vessel for towage between ports and places. And lastly, the Dredging Act (46 US Code; Chapter 551; § 55109) requires the use of US-flagged vessels for dredging and certain pipe and cable laying activities that use certain mechanical devices. Similar to the Jones Act, these acts are likely to be fully implemented within the territorial seas. Only the Towing Statute, at present, is maintained outside of the territorial seas.

3.4 List of Federal Acronyms

ACHP	Advisory Council on Historic Preservation
ALP	Alternative Licensing Process
APE	Area of Potential Effect

[5] https://www.govinfo.gov/app/details/USCODE-2015-title46/USCODE-2015-title46-subtitleV-partA-chap501-sec50102

BA	Biological Assessment
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BO	biological opinion
BOEM	Bureau of Ocean Energy Management
BOR	Bureau of Reclamation
CFR	Code of Federal Regulations
COE	US Army Corps of Engineers
COP	Construction and Operations Plan
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DLA	Draft License Application
DOD	Department of Defense
DOE	Department of Energy
EA	environmental assessment
ECPA	Electricity Consumers Protection Act
EFH	Essential Fish Habitat
EIS	environmental impact statement
EPA	Environmental Protection Agency
EPAct	Energy Policy Act of 2005
ESA	Endangered Species Act
FERC	Federal Energy Regulatory Commission
FONSI	Finding of No Significant Impact
FPA	Federal Power Act
FR	Federal Register
FWCA	Fish and Wildlife Coordination Act
FWS	US Fish and Wildlife Service
HPMP	Historic Properties Management Plan
IHA	Incidental Harassment Authorization
ILP	Integrated Licensing Process
JARPA	Joint Aquatic Resources Permit Application
LOA	Letter of Authorization
MBTA	Migratory Bird Treaty Act
MHK	Marine hydrokinetic
MMPA	Marine Mammal Protection Act
MOU	Memorandum of Understanding
MSA	Magnuson-Stevens Fishery Conservation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NMSA	National Marine Sanctuaries Act
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NPS	National Park Service
NWP	Nationwide Permit
OCS	Outer Continental Shelf
OCSLA	Outer Continental Shelf Lands Act
OEP	Office of Energy Projects
PA	Programmatic Agreement
PAD	Preliminary Application Document
PATON	Private Aids to Navigation

PEV	Pacific Energy Ventures, LLC
RFI	Request for Interest
ROD	Record of Decision
ROW	Right-of-Way
RPA	Reasonable and Prudent Alternatives
RUE	Right-of-Use and Easement
SAP	Site Assessment Plan
SHPO	State Historic Preservation Office
THPO	Tribal Historic Preservation Office
TLP	Traditional Licensing Process
USCG	US Coast Guard
USFS	US Forest Service
USGS	US Geological Survey
WQC	Water Quality Certification

3.5 Summary Table of Federal Authorization

Permit/Approval	Primary Legal Authority	Lead Agency	Other Agencies[6]	Anticipated Process Time
Federal Hydroelectric License	Federal Power Act, Energy Policy Act of 2005	FERC	COE, BOEM, FWS, NOAA, USCG, BIA, EPA, NPS, USFS, ACHP, USGS, BLM; tribal governments; other relevant federal, state, and/or local agencies	2-6 years
Preliminary Permit				At least 60 days
Nationwide Permit 52	Rivers and Harbors Act; Clean Water Act	COE	FWS, NOAA, NPS, ACHP, tribal governments; other relevant federal, state, and/or local agencies	Varies; at least 40 days
Commercial Renewable Energy Lease	Outer Continental Shelf Lands Act, Energy Policy Act of 2005	BOEM	COE, FERC, FWS, NOAA, USCG, BIA, EPA, NPS, USFS, ACHP, USGS, BLM; tribal governments; other relevant federal, state, and/or local agencies	6-8 years if competitively issued; 3+ years if no competitive interest
CWA § 404 Permit	§ 404 Clean Water Act	COE	EPA, FWS, NMFS	60-120 days, more if EIS needed
COE § 10 Permit	§ 10 Rivers & Harbors Act	COE	FWS, NMFS	60-120 days, more if EIS needed
Private Aids to Navigation Permit	Coast Guard Regulations	USCG	COE, state resource agencies	3 months+

[6] These are agencies that are *likely* to be involved in project evaluation for a particular authorization or environmental review. Some of the agencies listed may not be involved and other agencies may be involved even though they are not listed here.

Permit/Approval	Primary Legal Authority	Lead Agency	Other Agencies[6]	Anticipated Process Time
NEPA Analysis (*ROD, FONSI, Categorical Exclusion*)	National Environmental Policy Act	FERC	EPA, NOAA, other relevant federal and state agencies	2-6 months for an EA; 12-24 months for an EIS[7]
§ 7 ESA Consultation[8]	Endangered Species Act	NMFS, FWS	FERC, COE, USCG	4-6 months[9]
Marine Mammal Consultation	Marine Mammal Protection Act	NMFS, FWS	None specified	4-24 months[10]
Essential Fish Habitat Assessment	Magnuson-Stevens Act	NMFS	Regional Fisheries Management Council, FERC, BOEM, COE	30-60 days[11]
Fish and Wildlife Coordination Act Consultation	Fish and Wildlife Coordination Act	FWS	FERC, NMFS	Varies
Migratory Bird Consultation	Migratory Bird Treaty Act	FWS	FERC, COE, state resource agencies	Varies
§ 106 NHPA Consultation	National Historic Preservation Act	Advisory Council on Historic Preservation	FERC, BOEM, COE, state resource agencies	2-6 months[12]
CZMA Federal Consistency Determination	§ 307 Coastal Zone Management Act	Designated State Agency	Relevant federal and state agencies	6 months
Water Quality Certification	§ 401 Clean Water Act	Designated State Agency	Relevant federal and state agencies	Up to 1 year

3.6 Federal Hydroelectric License

Under the Federal Power Act (FPA), FERC has jurisdiction over any project in navigable waters that uses water to generate electricity. With this jurisdiction, FERC has authority over the siting and licensing of hydrokinetic facilities, as well as the siting and licensing of the primary transmission line from the project to the point that it is connected to a line carrying electricity from other sources.

Lead Agency: FERC is an independent agency that regulates the interstate transmission of electricity, natural gas, and oil. Within FERC, the Office of Energy Projects (OEP) is responsible for the approval and oversight of hydroelectric projects. OEP focuses on:

1. Project siting and development;
2. Balancing environmental and other concerns;
3. Ensuring compliance; and
4. Safeguarding the public.

[7] Process time is per NEPA document; multiple NEPA documents may be required.
[8] One coordinated review may occur, but multiple ESA consultations could be required.
[9] Process time is per consultation; multiple consultations may be required.
[10] Process time will vary depending on complexity and the NEPA documentation required.
[11] Process time may vary if the review is concurrent with an ESA Biological Opinion.
[12] At least 30 days for each stage of consultation: (1) Concurrence on area of potential effect (APE); (2) No adverse effect to cultural resources; and/or (3) Concurrence on mitigation measures.

FERC authorizes the construction and operation of hydroelectric projects that produce, transmit and sell electric power through a Federal Hydroelectric License, which may be issued for a term of up to 50 years. There are three processes that may be used to issue a license: the Integrated Licensing Process (ILP), Traditional Licensing Process (TLP), and Alternative Licensing Process (ALP). The default licensing process is the ILP; license applicants must request and receive approval from FERC to use the TLP or ALP. The TLP offers license seekers substantial control over all activities before an application is filed with FERC. This was the only licensing process until a large class of hydroelectric projects sought renewed licenses in the early 1990s under the Electricity Consumers Protection Act (ECPA) of 1986, which set new balances between public and private uses of waterways for hydroelectric power. At that time, FERC created the ALP, which provides broad structure over "pre-filing" activities and fosters flexible timelines, stakeholder collaboration, applicant-prepared EAs, and settlements. Alternatively, the ILP provides tight structure and timelines in the pre-filing period. Goals of the ILP are to involve FERC licensing staff at the onset of the process to address study requests, record disputes, and bring timeline rigor.

Licensing processes for commercial-scale hydroelectric development are well established. However, many hydrokinetic technologies are in the testing and demonstration stages, and, in general, authorization processes for commercial projects are not necessarily well-suited to smaller scales of development. In response to the emerging hydrokinetic industry, FERC has sought and continues to seek innovative regulatory approaches that are more appropriate for these new renewable energy technologies.

Pilot Projects

In 2008, FERC issued its *Guidance for Pilot Project Licensing,* establishing a pilot project licensing process. The pilot project licensing approach provides an opportunity for developers to prove emerging hydrokinetic technology devices, determine appropriate sites, and gather information on environmental and other effects of the devices.[13] The pilot project process is essentially a modified version of the ILP. It is designed to provide an expedited licensing process for demonstration projects while maintaining oversight and agency input.

Projects eligible to use this pilot process must be small, short-term, removable or able to be shut down on short notice and may not be located in waters with "sensitive designations."[14] These guidelines are applied in the context of each case and do not represent firm limits.[15] The study and information requirements for a pilot project license are less than those for a standard license but the licensee must perform rigorous post-deployment monitoring. This pilot process utilizes an adaptive management approach to ensure environmental protection; for example, if post-deployment monitoring reveals negative impacts, the project may be modified or shut down. Essentially, the goal of pilot projects is to provide an opportunity for the licensee to perform in-water testing that will provide the information needed to prepare a complete license application for a commercial-scale project. However, if the licensee does not intend to connect the project to the grid, the in-water testing might be better suited to a "Test Project."

Test Projects

Certain situations may allow hydrokinetic developers to conduct some technology testing prior to receiving a hydroelectric license. The "Verdant Exception" allows deployment and operation of small test and educational facilities for the purposes of data collection to support license applications. To qualify for this type of exception, the test project must be less than 5 MW, short-term (less than 18 months), and power generated from the test facility may not be sold.[16] If a hydrokinetic test project meets the requirements of the Verdant Exception, it may proceed with testing without a license from FERC. (Of course, the project must comply with all other applicable laws.) It should be noted that this type of exception is only valid in limited circumstances.

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[13] For detailed information, including the Hydrokinetic Pilot Project Criteria and Draft Application Checklist, please refer to FERC's website: https://www.ferc.gov/hydrokinetic-pilot-project-licensing-process

[14] FERC Whitepaper on Licensing Hydroelectric Pilot License Projects, April 14, 2008: https://www.ferc.gov/sites/default/files/2020-04/white_paper.pdf.

[15] Developers can communicate with FERC staff to gain a better understanding of the appropriateness of the pilot project licensing guidance to their project.

[16] Verdant Power, FERC Decision, 111 FERC ¶ 61,024, clarified at, 112 FERC ¶ 61,143 (2005). Maine Maritime Academy, FERC Declaratory Order, 130 FERC ¶ 62,234 (2010).

Review Process: As discussed above, FERC follows three different licensing processes: the ILP, the TLP, and the ALP. The ILP is FERC's default licensing process. A developer must receive FERC approval to use the TLP or ALP. All three processes involve a pre-filing stage, during which the studies are developed and carried out and a license application is prepared, and a post-filing stage, during which the license application is reviewed, an environmental document is prepared, and a licensing decision is made. During both stages, FERC staff seeks input from stakeholders. With any of the FERC licensing processes, the developer begins the process by filing a Pre-Application Document (PAD), which includes all existing, relevant, and reasonably available information gained through consultation with federal, state, and local resource agencies, Indian tribes, nongovernmental organizations, and members of the public (stakeholders). In the PAD, the developer must identify information and study needs for the proposed project and provide a process plan or a schedule of upcoming licensing activities. Many of the requirements for the FERC PAD are similar to the requirements for a BOEM Site Assessment Plan (discussed in Section 3.9). After a developer has conducted its information gathering studies, it will file a final license application with FERC. The developer's application will contain general information about the project. It will also contain specific exhibits, including a thorough description of the proposed project and its operation, a draft environmental document, and necessary drawings and maps.
Further, under Section 4(e) of the FPA, FERC must give equal consideration to energy conservation, protection, mitigation and enhancement of fish and wildlife, protection of recreational opportunities, and preservation of other features of environmental quality.

Preparation of the EA/EIS typically takes between 12 months (EA) and 24 months (EIS), . Once the NEPA documentation is complete, FERC issues a draft EA/EIS for review and agencies and other parties may submit comments. After responding to comments and resolving any issues, FERC issues a final EA/EIS. Once the final EA/EIS is complete, FERC may issue a license order.

Ancillary Authorizations: Regardless of the type of licensing process, applicants must provide evidence of compliance with all applicable local, state, tribal, and federal requirements before implementing an action authorized by a FERC license. For example, a FERC license authorizes construction and operation of a project, but developers must also obtain use rights for the project site. Projects in state submerged lands generally require usage rights from the state (often in the form of a lease), and projects on the OCS require a Renewable Energy Lease from BOEM, which must be secured before a FERC license may be issued for the project.[17]

Preemption: Although FERC generally requires license applicants to comply with all state and local requirements, the FPA gives FERC the authority to preempt state and local laws concerning hydroelectric licensing that directly conflict with FERC's authority. However, FERC must consider state and local concerns in deciding whether to issue a license, and its ability to preempt state law is extremely limited. Further, proprietary water rights and federally mandated state approvals cannot be preempted. For example, when states implement federally mandated authorizations, such as CZMA consistency findings or a Water Quality Certification, FERC cannot preempt the state's decision.

Consultation: Consultation with various parties is required at certain times during every licensing process. While consultation periods and procedures will vary depending on the type of process used and the size and scope of the project, each licensing process entails a substantial level of consultation.

Process Time: Times vary depending on project size, location, and the type of licensing process, but it is generally expected to take three to five years from the filing of an NOI/PAD to issuance of an original commercial-scale project license. Under the ILP, pre-filing consultation and studies are generally conducted over one to three years. Once a license application is deemed complete, it generally takes from one to two years for issuance of an original license, depending upon the complexity of the issues and the potential environmental effects.

For pilot projects, FERC's *Guidance for Pilot Project Licensing* indicates that a license decision may be reached within 6-12 months from the filing of a complete application.[18] It is important to note that this time frame does not

[17] Memorandum of Understanding between DOI and FERC, April 9, 2009 available at https://www.boem.gov/sites/default/files/environmental-stewardship/Environmental-Studies/Partnerships/DOI_FERC_MOU.pdf.
[18] FERC Whitepaper on Licensing Hydroelectric Pilot License Projects, April 14, 2008: https://www.ferc.gov/sites/default/files/2020-04/white_paper.pdf.

necessarily apply to other required authorizations, so the overall time frame for authorizing a hydrokinetic pilot project could likely exceed 12 months.

License Fees: License holders are required to pay two types of annual fees: (a) administration costs and (b) land use charges. Non-municipal license holders begin paying annual administrative and land use charges at the construction deadline; municipal entities begin paying when project operations commence.

Administration Costs. License holders are required to pay reasonable annual charges for the costs of FERC's administration of Part I of the FPA. For all projects over 1.5 MW, FERC calculates the administrative costs by dividing its total fiscal year program costs among all licensees, according to each project's installed capacity.[19] FERC also collects administration fees for costs incurred by other federal agencies under FPA Part I. These fees are based on an allocated share of the other agencies' documented fiscal year program costs (incurred under FPA Part I).

Land Use Fees. FERC assesses a per-acre charge for use of onshore tribal and government lands and government structures.[20] The rate for the per-acre fee is set by the USFS on a county-by-county basis.[21] FERC has no method of assessing use fees for offshore government lands.

Comprehensive Plans. Section 10(a)(2)(A) of the Federal Power Act requires FERC to consider the extent to which a project is consistent with Federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project. Comprehensive plans can be filed with FERC and should contain an examination of how different uses of a waterway will promote the overall public interest.

Legal Authority: Federal Power Act (Title 18 CFR).

3.7 Preliminary Permit

For projects on state submerged lands, developers have the option of applying to FERC for a preliminary permit before seeking a hydroelectric license. A preliminary permit, issued for up to four years, does not authorize construction or operation of a facility; it simply gives a developer preference over any competitors who file license applications for projects at the same site during the preliminary permit term. Developers may use the preliminary permit term to perform pre-filing activities such as determining the project's feasibility, consulting with stakeholders, performing baseline studies, and preparing the license application.

Acquiring a preliminary permit prior to filing a license application is encouraged, but it is not required. For projects on the OCS, FERC does not issue preliminary permits; instead, project proponents may submit an unsolicited lease request to BOEM and BOEM will determine whether there is competitive interest in the proposed project area on the OCS.[22]

Lead Agency: FERC reviews applications for and issues all preliminary permits. FERC also provides records of all issued and pending preliminary permits on its website.[23]

Review Process: When a developer applies for a preliminary permit, FERC, after requiring that the developer address any deficiencies in the permit application, issues notice that the preliminary permit application has been accepted for filing and notifies all relevant agencies. Once the preliminary permit has been granted, the developer must submit regular reports to FERC including a schedule of activities and target dates, as well as periodic, detailed reports on the status of its studies. In accordance with FERC's "strict scrutiny" approach to issuing preliminary permits for hydrokinetic projects, permit holders may be required to comply with additional performance criteria. Detailed information about preliminary permit filing requirements and commenting procedures is available on the FERC website.[24]

Consultation: Because a preliminary permit does not actually authorize placement of hydrokinetic devices in the water, formal consultation is not required; however, early and effective coordination and consultation can be key factors in successful project development. While formal consultation is not required, any interested party may

[19] See 16 USC § 803(e). Regulations regarding Commission fees can be found at 18 CFR Part 11.
[20] For projects located on tribal government lands, charges are set on a case-by-case basis.
[21] See 18 CFR Part 11, Appendix A.
[22] FERC, Order Dismissing Preliminary Permit Applications, 127 FERC ¶ 62,047 (April 17, 2009).
[23] https://www.ferc.gov/industries-data/hydropower/licensing.
[24] https://www.ferc.gov/industries-data/hydropower/general-information/licensing/preliminary-permits.

submit comments or a motion to intervene in response to a preliminary permit application.[25] FERC will consider all comments filed in making its decision on whether or not to issue a preliminary permit, but only those who file a motion to intervene in accordance with the Commission's rules may become a party to the permit proceeding. All comments or motions to intervene should be received by FERC within 60 days after the date FERC issues its notice that the preliminary permit application has been accepted for filing unless the notice specifies otherwise.

Process Time: At least 60 days.

Legal Authority: Section 4(f) Federal Power Act (Title 18 CFR).

3.8 US Army Corps of Engineers Nationwide Permit 52

For pilot projects, some COE Districts offer a Nationwide Permit (NWP) 52, which was published in 2012 and creates a permit mechanism for pilot projects only. For this NWP, "pilot project" is defined as an experimental project where devices will be monitored to collect information on performance and environmental effects. The project must cause less than 0.5-acre loss to waters of the United States. This NWP would allow up to ten devices with no mention of actual electrical output limitations. Application for NWPs is region specific, and in some locations, they are not used at all (such as the New England states, where only regional general permits are allowed). In some cases, NWP 52 can be used in combination with FERC's Verdant Exception or Guidance for Licensing Hydrokinetic Pilot Projects and/or with a Limited or Research Lease from BOEM to minimize the regulatory burden on technology testing.

Lead Agency: COE reviews applications for and issues all NWPs.

Review Process: The NWP process generally begins with the prospective permittee submitting a pre-construction notification to COE, where it is evaluated for completeness and eligibility for the specific NWP. Next, COE determines whether the proposed project may affect federally threatened or endangered species or cultural resources listed in the National Register of Historic Places. If so, the permit would require formal consultation with FWS, NMFS, and the appropriate State Historic Preservation Office (SHPO). Next, the permit would require a certification or waiver for Section 401 of the CWA. Lastly, the permittee must send a verification letter to COE with applicable special conditions. Project development may proceed subject to the general, regional, and special conditions of the NWP.

Process Time: Varies; at least 40 days.

Legal Authority: Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403); Section 404 of the Clean Water Act (33 USC 1344).

NOTE: The following section focuses on the leasing process for commercial-scale hydrokinetic projects on the OCS and how it relates to FERC standard licensing procedures. Please refer to the DOI/FERC Guidance on Regulation of Hydrokinetic Energy Projects on the OCS for additional information about renewable energy activities on the OCS (https://www.boem.gov/BOEM-Newsroom/Press-Releases/2012/BOEM-FERC-staff-guidelines-pdf.aspx).

3.9 Commercial Renewable Energy Lease

Certain hydrokinetic projects, such as ocean wave- or current-energy conversion facilities, may be sited on the OCS, which includes all submerged lands between the seaward extent of state waters (typically three nautical miles from shore) and the seaward extent of US jurisdiction (approximately 200 nautical miles from shore). Hydrokinetic projects located partially or wholly on the OCS require authorization for use of the submerged lands on which project activities occur.

Lead Agency: Use of submerged lands on the OCS for renewable energy activities is managed by BOEM, a bureau in DOI that manages the nation's natural gas, oil, and other mineral resources on the OCS. Under authority delegated to it by the Secretary of the Interior, BOEM is the lead agency for leases on the OCS; within BOEM, the

[25] In accordance with the requirements of the Rules of Practice and Procedure, 18 CFR §§ 385.210, 211, and 214.

Office of Renewable Energy Programs, and Regional Offices that the activity resides in, manage renewable energy activities, including leases for hydrokinetic activities.

In addition to a lease from BOEM, construction and operation of hydrokinetic projects on the OCS also require a license from FERC.[26] Unlike projects in state waters, FERC will not issue preliminary permits for projects on the OCS, as a lease from BOEM will provide site access.

It is important to note that FERC will not issue a license until BOEM has issued a lease for the project; likewise, construction and operation of a hydrokinetic project on the OCS cannot commence without a FERC license, even if a lease has been issued.[27] However, certain cases may allow hydrokinetic developers to conduct some technology testing under a limited or research lease without receiving a FERC license.[28]

Types of Leases: BOEM procedures for authorizing renewable energy activities on the OCS provide for three types of leases: Limited Lease, Commercial Lease, and Research Lease. A *Limited Lease*, typically issued for a five-year term, authorizes activities such as site assessment and technology testing. A *Limited Lease* does not authorize long-term or large-scale operations, and it cannot be converted into a commercial lease. In addition, if a FERC license would be required at any point in the project life, BOEM will not issue a limited lease for the project; as such, it is expected that most hydrokinetic developers will pursue commercial leases. For that reason, this section focuses on the process for obtaining a *Commercial Lease* for a hydrokinetic project.

A *Commercial Lease* conveys access and operational rights to produce, sell, and deliver renewable energy, as well as the right to one or more project easements for the purpose of installing transmission cables and other needed facilities. Generally issued for a 30-year term, a commercial lease includes an initial five-year site-assessment term and a 25-year construction and operations term.[29]

A *Research Lease* is available only to federal agencies, state agencies, or universities that have legal standing as a state agency. Research leases authorize technology testing and research. BOEM issued the first research lease for a MHK project to Florida Atlantic University (FAU) in 2014.[30] The FAU lease is for five years.

Application Process: In accordance with the OCSLA, BOEM must issue leases competitively unless, after public notice, it determines that no competitive interest exists.[31] To determine whether competitive interest exists, BOEM publishes a Request for Interest (RFI) in the Federal Register (FR).[32]

Interested parties are encouraged to take advantage of the comment period after publication of the RFI to respond with an indication of interest in obtaining one or more commercial leases in the RFI area or otherwise comment on development in the identified area.[33] Responses should include (1) a description of the project objectives and proposed facilities, devices, and infrastructure; (2) anticipated power production and likely purchasers; (3) a general schedule of activities; (4) any relevant environmental or energy resource data available; (5) a statement that the proposed activity conforms to state and local energy planning requirements, initiatives, or guidance; and (6) documentation that the applicant is qualified to hold a lease. After the comment period, BOEM reviews the responses to determine whether competitive interest exists.

Noncompetitive Lease Process: If BOEM determines that there is no competitive interest in a lease, it will publish in the FR a notice of *Determination of No Competitive Interest*. After BOEM publishes this notice, the applicant is responsible for submitting any required consistency certification and necessary data and information pursuant to 15 CFR 930, subpart D to the applicable state CZMA agency or agencies and BOEM.

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[26] BOEM is the lead agency for leases for hydrokinetic activities; FERC is the lead agency for hydrokinetic licenses.
[27] Memorandum of Understanding between DOI and FERC, April 9, 2009 available at https://www.boem.gov/sites/default/files/environmental-stewardship/Environmental-Studies/Partnerships/DOI_FERC_MOU.pdf.
[28] See Verdant Power, 111 FERC ¶ 61,024, clarified at, 112 FERC ¶ 61,143 (2005).
[29] Longer lease terms may be negotiated to correspond with the operations term in a FERC license or to accommodate pilot-project relicensing.
[30] See BOEM press release at https://www.boem.gov/press06032014/.
[31] 43 USC §§ 1331-1356a.
[32] See 30 CFR § 585.213.
[33] See 30 CFR § 585.213. A developer who submits an unsolicited lease request is not required to respond to the subsequent RFI for that area.

BOEM will coordinate and consult on the necessary environmental reviews (e.g., NEPA and CZMA) in the review of the noncompetitive lease request(s). Once the necessary environmental analyses and documentation are complete, BOEM may offer a noncompetitive lease. After the applicant accepts the terms and conditions of the lease, BOEM will issue the lease. The lease will be fully executed upon receiving the required payments and properly executed lease forms.

Competitive Lease Process: If competitive interest does exist, BOEM will publish a *Call for Information and Nominations* (Call) in the FR. Prospective lessees must submit a nomination of interest within the time period stipulated in the Call.[34] Any interested or affected party may also respond to the Call with information about the proposed leasing activities and existing conditions in the area of interest.

After reviewing responses to the Call, BOEM determines the area of interest on which to perform a NEPA review. Once the NEPA review and documentation are complete, BOEM publishes a Proposed Sale Notice in the FR. This notice includes information about the lease area, lease provisions and conditions, auction details, bid evaluation criteria, award and appeal procedures, and lease execution procedures. A Proposed Sale Notice also includes a request for public comment on the proposed lease sale, and BOEM provides a 60-day comment period.[35]

All comments received are considered in developing the final lease sale terms and conditions, which are specified in the Final Sale Notice. Prospective lessees submit their bid packages according to the auction format specified.[36] Upon receiving the required payments and properly executed lease forms, BOEM will issue a lease to the successful bidder.

Review Process: Upon lease execution, a twelve-month preliminary term commences once the lease is issued, during which time the successful bidder must submit its Site Assessment Plan (SAP). BOEM will review the SAP to ensure it contains all the necessary information, and coordinate and consult with federal, state, and local agencies regarding information and data related to the proposed activities.[37]

Once the technical and environmental reviews are complete, BOEM may approve, approve with conditions, or disapprove the SAP. If BOEM disapproves the SAP, it will inform the lessee of the reasons and allow them to submit a revised plan.[38] Upon SAP approval, the five-year Site Assessment Term begins.

The Site Assessment Term allows the lessee five years to collect site-specific data to inform and submit the FERC License application. Most renewable energy lessees on the OCS are required to submit a Construction and Operations Plan (COP) after the SAP is approved; however, a FERC license application replaces the COP for hydrokinetic projects. FERC performs a NEPA review for the license application. The number of NEPA reviews and environmental consultations will vary for each project; when multiple NEPA reviews are necessary, each will build on relevant information in the prior reviews, regardless of the lead agency.

Process Time: Because renewable energy leasing is such a new process, it is difficult to define the timeframes for issuing and approving a lease. In addition, project-specific factors will influence the level of review required. At this point, it is expected to take approximately three years to issue a commercial lease if no competitive interest exists. For a competitively issued lease, the overall process is expected to take 6-8 years.

Lease Fees: For a noncompetitively-issued lease, an "acquisition fee" is due when the applicant submits its noncompetitive lease request. Acquisition fees are $0.25/acre. For a competitively-issued lease, a "bid deposit" is due when the applicant files its bid package.

After the award of the lease, developers must also pay annual rental and operating fees, which are set by BOEM based on the lease terms. Annual rent for the project lease is assessed between the date of lease issuance and the date project operations commence; once commercial operations begin, the leaseholder begins paying annual operating fees. Developers are also expected to post financial assurance to guarantee compliance with lease terms and

[34] Information requirements for responding to the Call are the same as those required for responding to an RFI, as outlined in 30 CFR § 585.213.
[35] The Proposed Lease Sale Notice will request comments on the items listed in 30 CFR § 585.216.
[36] Multiple auction formats and bidding systems exist, as described in 30 CFR §§ 585.220-221.
[37] BOEM will only share non-proprietary information from the SAP with other agencies and stakeholders.
[38] If appropriate, BOEM may suspend a lease to allow this revision to occur.

conditions. Financial assurance of at least $100,000 is required before lease issuance, and additional amounts are required before the SAP, COP, and facility installation are approved.

In addition to BOEM's fees, annual rent for a project's transmission-line easement becomes due once FERC issues a project license. While both BOEM and FERC are required to assess fees or annual charges, the agencies coordinate to ensure that the overall fees for OCS hydrokinetic projects are fair and appropriate.[39] Further, leaseholders may request that BOEM reduce or waive rent or operating fee payments for a certain period of time (not to exceed six years) to encourage continued or additional activity.

Phased development is an approach in which a smaller, pilot-scale project is developed first, and then it is expanded to a larger, commercial-scale operation. For phased hydrokinetic development on the OCS, a pilot-scale project could be authorized through the BOEM commercial lease process in conjunction with the FERC pilot license process. Once the project is ready to expand to a full commercial-scale, the developer could utilize FERC's relicensing process to acquire a standard FERC license.

Hybrid projects involve technologies that generate electricity from more than one form of renewable energy, one of which may be hydrokinetic (e.g., wind- and wave-generation under the same lease). Although a FERC license application replaces the COP for the hydrokinetic portion of hybrid project, developers must submit a COP for the non-hydrokinetic portion of their projects.

Straddle projects are hydrokinetic projects that overlap the boundary dividing state waters and the OCS. Developers must obtain a lease from BOEM for the OCS portion of a straddle project. It is important to note that a developer who has licensed a project in state waters adjacent to the OCS does *not* have any priority to develop the neighboring site on the OCS.[40]

Legal Authority: Outer Continental Shelf Lands Act, 43 USC sections 1331-1356a; Energy Policy Act of 2005; BOEM Code of Federal Regulations in "Renewable Energy and Alternate Uses of Existing Facilities on the Outer Continental Shelf," 30 CFR Part 585.

3.10 Integrating the Hydrokinetic License and Leasing Processes

Once a commercial lease is issued by BOEM, the five-year site-assessment term begins. It is during this period that a developer should prepare and file its final license application with FERC. The lessee must submit its final license application to FERC at least six months before the end of the site-assessment term.

Under FERC's standard licensing procedures, applicants submit a PAD prior to filing a license application.[41] If a lease is acquired noncompetitively, the developer may file its PAD with FERC at any point following BOEM's Determination of No Competitive Interest. In a competitive lease process, the developer must wait to file its PAD until after BOEM issues the lease, as FERC will not begin processing a license application until it is clear that an applicant has secured the lease award.

Because the information requirements for a PAD are very similar to those for a SAP, it may be possible for an applicant to file the PAD (with FERC) and the SAP (with BOEM) simultaneously.[42] Submitting the PAD and SAP at the same time could enable FERC and BOEM to conduct joint public scoping, if appropriate. In addition, a developer could commence information-gathering studies necessary for the final license application while BOEM conducts its environmental review of the SAP.

Initiating the lease and licensing processes simultaneously should allow for the overall processes to be completed more quickly and efficiently; however, this approach does put the developer at risk of incurring costs prior to knowing whether a lease or license will be issued.

[39] For information about FERC fees, please refer to the Federal Hydroelectric License section.
[40] All renewable energy authorizations from the BOEM are subject to the competition requirements set out in EPAct 2005.
[41] Under FERC's pilot licensing guidance, applicants submit information requirements in the form of a DLA.
[42] Simultaneous filing of the DLA and the SAP is possible with both noncompetitive and competitive lease scenarios.

With an expected timeframe of 2 through 3 years for BOEM to issue a commercial lease, and 3 through 4 years for FERC to issue a standard license, the overall timeframe for authorizing a hydrokinetic project on the OCS will likely to take at least 5 through 7 years. As with all authorizations, actual process times vary from project to project. Developers are encouraged to communicate with BOEM and FERC about aligning the filing and review process as early as possible.

3.11 Clean Water Act Section 404 Permit

Enacted to conserve and restore the quality of the nation's waterways, CWA Section 404 requires authorization for dredge and fill activities for activities in waters of the US, including certain wetlands. The Section 404 Permit program is administered jointly by EPA and COE.

Lead Agency: COE handles the actual issuance of permits, and it determines whether a particular area of land is a wetland or water of the US COE also has primary responsibility for ensuring compliance with permit conditions, although EPA plays a role in compliance and enforcement.[43] Other agencies involved in reviewing applications for and ensuring compliance with Section 404 permits include NMFS, FWS, and state agencies.

COE can authorize the discharge of dredged or fill material with a standard individual permit, a letter-of-permission, a nationwide permit, or a regional permit. Based on the level of impacts associated with a proposed project, COE makes a determination on what type of permit review and authorization is appropriate. Authorizations expire 2 through 5 years from the date of issuance; however, they may be renewed if COE is notified at least one month prior to expiration.[44] Depending on the scope of the project and construction methods, certain activities associated with advanced water power renewable energy projects (e.g., transmission cables) may require a Section 404 Permit.

Consultation: In its application review, COE consults with federal and state agencies to evaluate potential impacts on fish and wildlife, water quality, navigation, historic, cultural, scenic and recreational values, and local economies. The inter-agency consultation process also involves review and negotiations to identify conservation measures that can help protect and mitigate potential effects. Before issuing a decision on a standard individual permit, COE will provide a 15 to 30-day public notice period. Also, COE must provide notice of and opportunity for public hearings before issuing a permit.

If a project could affect a threatened or endangered species or its critical habitat, then COE must consult with NMFS and FWS before issuing an authorization.[45] Additionally, the project applicant may be required to submit a Biological Evaluation.[46]

Process Time: Usually 60 to 120 days; if an EIS is required, process time will increase.

Legal Authority: Clean Water Act Section 404 (33 USC § 1344).

3.12 Rivers and Harbors Act Section 10 Permit

The Rivers and Harbors Act expressly prohibits the obstruction or alteration of navigable waters of the US. As such, any structures or activities (e.g., anchoring cables, aids to navigation) occurring in or affecting the navigable waters of the US, including the Territorial Seas and the OCS,[47] are subject to authorization by COE.

Lead Agency: Section 10 permits are the responsibility of COE. Other agencies involved in reviewing applications for and ensuring compliance with Section 10 permits may include FWS, NMFS, and the relevant SHPO.

COE can authorize activities by a standard individual permit, letter-of-permission, nationwide permit, or regional permit. Based on the level of impacts associated with a proposed project, COE will make a determination on what type of permit is needed. For example, a PATON permit may be authorized by a nationwide permit if the navigation

[43] For example, EPA can object to COE issuance of a 404 permit if serious disagreements arise.
[44] The permit renewal process takes into account whether significant changes have occurred to the project area or facility.
[45] http://www.fws.gov/laws/lawsdigest/ESACT.html.
[46] A Biological Evaluation includes a description of the species in the area, the impact the proposed project may have on the species, and measure to be taken to minimize impact to the species and their habitat.
[47] Areas that are leased from BOEM may or may not require a § 10 Permit. An evaluation of the impact of the proposed activity and/or structures will determine whether or not a permit is required. 33 CFR § 322.5(f).

aids are approved by and installed in accordance with USCG requirements (33 CFR § 330.5(a)(1)). COE exercises its Section 10 authority by providing mandatory conditions to the FERC license.

Consultation: The Fish and Wildlife Coordination Act (16 USC § 2901 et seq.) authorizes FWS to review and comment on the effects of fish and wildlife of activities proposed to be undertaken or permitted by COE.[48] Therefore, if a project may affect threatened or endangered species (or their designated critical habitat), then COE must consult with NMFS and FWS before making a permit decision. Additionally, permit applicants will be required to submit a Biological Evaluation describing the species in the area, the impact the project may have on the species or its critical habitat, and measures that can be taken to minimize impacts. Before issuing a decision on a standard individual permit, COE will provide a 15- to 30-day public notice period. Also, COE must provide notice of and opportunity for public hearings before issuing a permit.

Process Time: Usually 60 to 120 days; if an EIS is required, the process time will increase.

Legal Authority: Section 10 Rivers and Harbors Act (33 USC § 403); 33 CFR Section 322, permits for Structures or Work in or Affecting Navigable Waters of the United States.[49]

3.13 Private Aids to Navigation Permit

Because hydrokinetic devices are located in the marine environment, they must comply with US navigation standards. Before deploying any structure, the owner/operator must apply for authorization to properly mark the structure. Navigation aids for marine renewable energy projects will be installed and maintained by the project owner/operator; as such, these markings are classified as PATON.

Lead Agency: USCG is responsible for PATON permitting. However, COE will likely be involved in reviewing proposed projects that need a PATON permit because COE must approve the project's Section 404 and Section 10 permits *before* navigational aids will be considered.

USCG and FERC signed a MOU in 2013 in which USCG requirements of a licensee for the construction of lights and signals for safe navigation become mandatory FERC license conditions under Section 18 of the FPA.

Review Process: To establish PATON markings in waters regulated by the federal government, developers must obtain either a permit or letter of no objection. The approved markings are required to remain in place until the structure is removed or otherwise directed by the USCG District Commander.[50]

Process Time: Average is three months, but this can vary depending on the project.

Legal Authority: Navigation & Navigable Waters, 33 CFR Parts 62, 64, 66.[51]

3.14 NEPA Analysis and Documentation

The purpose of NEPA is to ensure that federal agencies evaluate potential environmental impacts of a proposed action and reasonable alternatives to those actions before authorizing the action. Environmental impacts include effects on natural resources such as fish, plant, and animal species and habitat, as well as effects on the human environment, which includes human uses such as commercial and recreational fishing. NEPA provides a framework to identify and assess environmental effects and reasonable alternatives to the proposed actions.[52]

Lead Agency: The federal action agency for the proposed project will be the lead agency for the NEPA process. If a project requires a FERC license, FERC is the lead; otherwise, COE is the lead. Other relevant agencies may be involved with reviewing documentation and ensuring NEPA compliance. The federal action agency is expected to implement alternatives and/or mitigation to avoid or minimize impacts so that the purpose and need for the proposed

[48] 16 USC § 661-667e.
[49] Describes the special policies, practices and procedures to be followed by COE in review of applications for a § 10 Permit http://www.fws.gov/laws/lawsdigest/riv1899.html.
[50] https://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=58af5e728660ff0b1745532dab4252a4&rgn=div5&view=text&node=33:1.0.1.3.28&idno=33.
[51] Part 62 defines US Aids to Navigation System; Part 64 explains the required Marking of Structures; and Part 66 authorizes the USCG to regulate PATON.
[52] www.epa.gov/nepa.

action is accomplished in a manner that does not result in significant environmental effects. Project proponents may refer to FERC's "Guide to Preparing Environmental Documents" for a detailed description of the documentation requirements.[53]

Review Process: The federal action agency first uses a scoping process to identify issues, concerns, and opportunities associated with a proposed project. The action agency prepares a scoping document that sets out the analytical process that will be followed in preparing the NEPA document, and a preliminary identification of issues that will be addressed in the analysis. The scoping process aids in determining the depth of analysis required and the significance of issues to be addressed in the staff's NEPA document. Ultimately, the NEPA document is used to decide whether to issue a license or exemption for a project and what conditions should be placed on the license or exemption.

Through the scoping process, the action agency determines whether (1) the proposed action is categorically excluded from detailed environmental review, or (2) the proposed action requires a detailed environmental review and documentation that includes alternatives considered and likely environmental effects. If a categorical exclusion does not apply, then the federal agency prepares either an EA or an EIS, depending on the significance of the issues identified during scoping.

If significant issues are not identified in the scoping process, agency staff will prepare an EA indicating that the project is not likely to have significant effects, along with a Finding of No Significant Impact (FONSI). If significant issues are identified, the agency will prepare an EIS.[54] In some cases, the action agency may tier its NEPA document off a prior EIS or a programmatic EIS. Additionally, the federal NEPA process may be coordinated with state environmental review processes.

Consultation: Stakeholder consultation usually involves government agencies, tribes, non-governmental organizations, and the public. Government agencies participate officially as either the action agency or a cooperating agency.[55] It is important that applicants consult with all relevant agencies *before* preparing NEPA documentation. For example, project proponents should consult with COE prior to preparing NEPA documentation for the FERC license application to ensure that wetlands are included in the NEPA analysis and that this information is included in the draft NEPA document. By doing this, the NEPA document developed for the FERC license application may also be used in the COE review, helping to streamline efforts and potentially decrease overall process time.

The federal action agency is ultimately responsible for executing the NEPA process and for documenting its evaluation. Any federal, state, tribal, or local agency having expertise with respect to a particular environmental issue or jurisdiction may participate in the NEPA process as a cooperating agency. Cooperating agencies assist the action agency by participating in the scoping process, developing information, and preparing environmental analyses on issues with which the cooperating agency has special expertise. However, cooperating agencies are precluded from intervening in the proceeding.[56]

Members of the public and agencies that are not "cooperating agencies" can participate in the NEPA process by consulting during study development and data interpretation, providing comments on the licensing application, participating in scoping of issues, filing of recommendations and conditions, and reviewing and commenting on the draft EA or EIS. The action agency must consider all feedback received during the comment period.

Process Time: The regulations for implementing NEPA do not set a strict time frame for the process as a whole; instead, federal agencies are expected to set time limits appropriate to the individual steps in the NEPA process. An EA usually takes between two and six months and an EIS can take a year or more.

Legal Authority: National Environmental Policy Act (42 USC § 4321 et seq.); 40 CFR Sections 1500-1508.

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[53] https://www.ferc.gov/sites/default/files/2020-04/PreparingEnvironmentalDocuments.pdf.
[54] When appropriate, a project applicant may use mitigation measures to reduce project impacts below the significance level, obviating the need for the agency to prepare an EIS.
[55] CEQ Regulations § 1501.6.
[56] Intervening to become a party to the proceeding is a required step to establishing legal standing. Intervenors can still provide substantial review and recommendations for NEPA analyses, which the action agency can address at its discretion.

3.15 Endangered Species Act Section 7 Consultation

ESA is a federal statute designed to protect and conserve endangered and threatened fish, wildlife, and plant species and their habitats.

Lead Agency: ESA is administered together by the "Services:" NMFS administers consultations that pertain to marine and anadromous species and FWS administers consultations that pertain to terrestrial and freshwater species. FERC, COE, USCG, USFS, NPS, and other relevant agencies may also participate in an ESA consultation for a proposed hydrokinetic project.

Pursuant to ESA Section 7, each federal action agency is obligated to consult with the appropriate Service whenever the proposed action may affect a listed species. The purpose of this consultation is to assist the federal agency in ensuring that the proposed action and its related activities do not jeopardize or result in destruction or adverse impacts to threatened or endangered species and/or habitats that have been designated as "critical."[57] License and permit applicants are encouraged to document and implement a due diligence process that includes impact avoidance, minimization, enhancement, monitoring and adaptive management to address unforeseen impacts to endangered and threatened species and their critical habitats. FERC applicants are required to include a discussion of the status or results of informal or formal consultation in their license application.

Consultation:[58] Generally, an applicant prepares a draft BA[59] under the supervision of the action agency[60] and in cooperation with the Service. Once complete, the applicant submits the BA to the action agency (e.g., FERC, COE) for its adoption and submission to the Service. Under the FERC licensing process, the NEPA documentation includes an ESA section that serves as the final BA to the Service. Any additional consultation after this is FERC's responsibility.

If the action agency determines from the BA that the proposed action is not likely to have adverse impacts *and* the Service concurs with this determination, then the consultation process is complete. However, if the Service does not concur with such determination, or if the action agency determines that the proposed action is likely to adversely impact an ESA-listed species or its critical habitat, then the action agency must initiate formal consultation. To initiate formal consultation, a written request must be submitted to the Service.[61]

During formal consultation, the Service develops a "jeopardy analysis" and uses this analysis to make informed decisions about the action's effects. If the Service's analysis concludes that the proposed project is not likely to jeopardize or result in destruction or adverse impacts to the species and/or its critical habitat, then the Service will issue a "no jeopardy" biological opinion (BO), along with an Incidental Take Statement detailing the amount and extent of expected incidental take, and terms and conditions that the applicant and the action agency must take to minimize impacts.[62]

If the Service's analysis concludes that the proposed project is likely to jeopardize the species and/or adversely impact its critical habitat, then the Service will issue a "jeopardy" BO, including any "reasonable and prudent alternatives" to the action that would prevent adverse impacts. Issuance of the BO concludes formal consultation. If no Reasonable and Prudent Alternative (RPA) can be developed, the action cannot move forward. However, the

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[57] https://www.fws.gov/endangered/what-we-do/consultations-overview.html.

[58] 50 CFR § 402.11 provides for "early consultation," which is designed to reduce the likelihood of conflicts between listed species or critical habitat and proposed actions and occurs prior to the filing of an application for a federal permit or license. Although early consultation is conducted between the Service and the federal action agency, the prospective applicant should be involved throughout the consultation process.

[59] The BA must be completed within 180 days after its initiation. 50 CFR § 402.12(i).

[60] For a FERC license issued under the ILP, if the applicant is the Commission's non-federal designee for informal consultation under the ESA, a draft BA is required. 18 CFR § 5.18(b)(3)(ii).

[61] The letter should describe the action to be taken, the specific area, species, or critical habitat that may be affected by the action, the manner in which the species or habitat may be affected, analysis of cumulative impacts, relevant reports (EA, EIS, BA), and other relevant information. Details of requirements for initiation of formal consultation may be found in 50 CFR § 402.14(c).

[62] If a marine mammal is listed as a threatened or endangered species under the ESA, a Marine Mammal Protection Act authorization must be issued in order for an Incidental Take Statement to be valid. For more information, see the following section on Marine Mammal Consultation in this chapter.

applicant or the action agency may apply to the ESA Committee for an exemption from the results of the ESA Section 7 consultation.[63]

Process Time: 135 days, with extensions that can allow the process to last a year or more.[64]

Legal Authority: Section 7 of the Endangered Species Act (16 USC § 1536).[65]

3.16 Marine Mammal Consultation

The MMPA makes it illegal to "take" or "harass" any marine mammal without prior authorization.[66] The MMPA includes two authorization processes: An Incidental Harassment Authorization (IHA) and a Letter of Authorization (LOA). Each of these authorizations provides for the incidental, but not intentional, take of small numbers of marine mammals while engaging in a specified activity (other than commercial fishing), provided that the take will have a negligible impact on the species.

Lead Agency: NMFS is responsible for authorizing take under the MMPA and the federal action agency (e.g., FERC, COE) will also be involved in the consultation. NMFS performs a NEPA review when issuing an authorization for marine mammal take. If NMFS believes the federal action agency's NEPA document sufficiently analyzes marine mammal issues, then it may decide that a Categorical Exclusion is appropriate and simply adopt the federal agency's NEPA document. Otherwise, NMFS prepares its own NEPA document for the issuance of an MMPA permit.

An IHA authorizes harassment to marine mammals from short-term activities as long as impacts on the species or stock are negligible. An IHA is generally issued if the proposed activities do not hold potential for serious injury or mortality, or if the potential for serious injury or mortality can be negated through mitigation. An IHA is only valid for up to one year, but it may be renewed prior to expiring. Monitoring and reporting are required to comply with an IHA.

An LOA, valid for up to five years, is generally issued if the potential for serious injury and/or mortalities exists and no mitigation measures that could be taken to prevent the take from occurring. The LOA authorizes the harassment, injury, or mortality of a marine mammal *as long as impacts on the species' annual rates of recruitment or survival are negligible*. The applicant would submit an application for small take authorization to the appropriate Service, which must publish notice of the proposed LOA in the FR, in newspapers, through appropriate electronic media, and in the coastal areas that may be affected by the proposed activity. The public has up to 30 days to submit comments on the proposal.

The Service then prescribes regulations setting forth permissible take methods to ensure the least practicable adverse impacts on the species or stock and its habitat, the availability of the species or stock for subsistence uses, and appropriate monitoring and reporting. At this point, the Service may issue an LOA if it determines that the level of take will be consistent with the findings made for the total take allowable. The Service will publish notice of the LOA in the Federal Register within 30 days of its issuance.

Process Time: 120 days for an IHA; generally, 6-8 months for an LOA, but may take up to 24 months.[67]

Legal Authority: Section 101(a)(5)(A)-(D) of the Marine Mammal Protection Act (16 USC § 1361 et seq.).[68]

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[63] See 50 CFR § 450.
[64] Details on duration and extension of formal consultation may be found in 50 CFR § 402.14(e).
[65] http://www.epa.gov/lawsregs/laws/esa.html.
[66] Take is defined as "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal" (16 USC 1362). Under the 1994 Amendments to the MMPA, harassment is defined as "any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild (known as Level A harassment) or has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering but which does not have the potential to injure a marine mammal or marine mammal stock in the wild (known as Level B harassment).
[67] With the exception of NMFS' 30-day limit for public comments, the LOA process does not include specific time lines, so it is difficult to estimate the length of time required to complete the regulatory and LOA process. However, a review of previously-issued LOAs indicates that the process may take as few as six and as many as twenty-four months.
[68] https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-protection-act#title-i---conservation-and-protection-of-marine-mammals.

3.17 Essential Fish Habitat Assessment

One of the primary purposes of the MSA is to promote the protection of EFH. EFH is the habitat required by fish to live, grow, and reproduce. It can consist of both the water column and the underlying surface (e.g., seafloor) of a particular area. Certain properties of the water column such as temperature, nutrients, or salinity are essential to various species. Areas designated as EFH are essential to the long-term survival and health of managed fisheries and include those habitats that support the different life stages of each managed species. EFH is identified by Regional Fisheries Management Councils for species included in Fishery Management Plans.[69]

Lead Agency: The MSA mandates that federal agencies consult with NMFS on all actions or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect (i.e., reduce the quality or quantity of) EFH. Regional Fisheries Management Councils and the federal action agency are also involved in this consultation. Federal agencies (e.g., FERC, COE) must notify NMFS to initiate consultation and perform an EFH assessment for any proposed project that the federal agency is authorizing that may negatively affect EFH.[70]

Consultation: An EFH assessment is an analysis of the effects of a proposed action on EFH and should include a conclusion about the level of the effects and proposed mitigation, if applicable. NMFS strongly encourages agencies and project applicants to discuss EFH concerns in pre-application planning and other early phases of project development.[71] Any EFH that may be affected by a proposed project must be documented in the EA/EIS that accompanies a FERC license application.[72] If an EFH assessment does occur, then the EA/EIA will also include the following information:

- Description of any EFH that may be affected
- Summary of the consultation process
- Conservation Recommendations (provided by NMFS or the applicable Fishery Management Council)
- Conclusions with respect to adoption of the recommended conservation measures.

Once the EFH assessment is complete, NMFS provides Conservation Recommendations. If NMFS finds that the proposed project would adversely impact any EFH, then it recommends measures to be taken (by the federal agency or the project proponent) to mitigate, reduce, or eliminate impacts the EFH. Federal agencies are required to respond to NMFS within 30 days with a description of the intended conservation measures, or with reasons for not implementing any of the recommendations (if applicable).

Process Time: 30 days for an Abbreviated Consultation; 60 days for an Expanded Consultation; or as otherwise appropriate to an existing review.

Legal Authority: Magnuson-Stevens Fishery Conservation and Management Act (MSA) (16 USC § 1801 et seq.).[73] Magnuson-Stevens Fishery Conservation and Management Reauthorization Act.[74]

3.18 Fish and Wildlife Coordination Act Consultation

The FWCA requires all federal agencies to consult with and give strong consideration to the views of the Services and state wildlife agencies regarding the fish and wildlife impacts of projects that propose to alter a body of water. Federal agencies must consult with relevant state and federal natural resource agencies to ensure that the

[69] Stakeholders should contact their regional Fishery Management Council for information on EFH in the area. https://www.fisheries.noaa.gov/node/2506.
[70] MSA § 305(b)(2).
[71] A Guide to EFH Consultation is available online https://www.fisheries.noaa.gov/insight/understanding-consultations-federal-agencies.
[72] The consultation process may be streamlined by consolidating, where appropriate, environmental review procedures required by other statutes such as NEPA. If an ESA BO is required for the proposed project, NMFS will often include its EFH recommendations in the BO.
[73] MSA § 306 gives authority to the states of Washington, Oregon, and California to manage the Dungeness Crab Fishery. See note, 16 USC § 1856.
[74] NMFS will work with the Regional Councils and the Council on Environmental Quality to revise environmental review procedures for fisheries management plans for compliance with NEPA.

construction, maintenance, and operation of a facility is in accordance with the FWCA to prevent the loss of or damage to fish or wildlife resources.

Lead Agency: FWS generally acts as the lead agency for ensuring compliance of a proposed project under the FWCA. NMFS and other relevant federal and state resource agencies are also likely to be involved in this review.

Process Time: None specified; however, FERC typically incorporates this consultation into its licensing process.

Legal Authority: Fish and Wildlife Coordination Act (16 USC § 2901 et seq.).[75]

3.19 Migratory Bird Treaty Act Consultation

Migratory birds in North America are an international resource with numerous species breeding throughout the United States and Canada. In the fall of each year, these birds migrate south to winter in the US, Mexico, and Central and South America. The original MBTA implemented the 1916 Convention between the US and Great Britain (for Canada) for the protection of migratory birds. Later amendments to the MBTA implemented treaties between the US and Mexico, the US and Japan, and the US and Russia.

Lead Agency: FWS is the lead agency for MBTA consultation. Other agencies involved include the federal action agency and state wildlife agencies.

It is important to address potential migratory bird impacts at the early stages of project planning as the potential impacts may be fairly complex. For example, corridors needed for transmission lines could fragment habitats and create flight hazards to migratory birds and maintaining those corridors with herbicides may cause adverse effects to plants and wildlife. FWS encourages applicants to document and implement a due diligence process that accounts for migratory bird impacts, including impact avoidance, minimization, enhancement, monitoring, and adaptive management commitments to address unforeseen impacts.

Process Time: No formal timeline exists, but consultation should begin as early as possible.

Legal Authority: Migratory Bird Treaty Act of 1918 (16 USC § 703 et seq.).

3.20 National Historic Preservation Act Section 106 Consultation

The NHPA requires each federal agency to identify and assess the effects of its actions or actions it authorizes on historic resources. The NHPA also requires federal agencies to afford ACHP a reasonable opportunity to comment on the proposed action.

Lead Agency: The federal action agency must consult with appropriate state and local officials, including the SHPO, the Tribal Historic Preservation Office (THPO), Indian tribes, and members of the public to consider their views and concerns about historic preservation issues when making final project decisions. Other agencies involved are likely to include ACHP, tribal authorities, and the federal action agency (e.g., FERC or COE).

Consultation: There are three stages of formal consultation with defined time frames. However, FERC includes NHPA analysis in its NEPA documentation, so the timeframes of the consultation stages are not necessarily formally followed. The federal action agency seeks concurrence from the SHPO or ACHP at each stage of analysis under the NHPA.[76]

I. Initiation of Consultation (60 days). First, the action agency initiates a 30-day consultation period with other relevant agencies to identity the Area of Potential Effect (APE) and to determine if any historic resources exist within the APE that are listed or eligible for listing in the National Register of Historic Places.[77] Concurrence on project APE is then sought from the SHPO, tribal governments, and other agencies involved. If no historic

[75] NMFS will work with the Regional Councils and the Council on Environmental Quality to revise environmental review procedures for fisheries management plans for compliance with NEPA.
[76] The federal action agency must take the objection or opinion of the other agencies into account but may still proceed based on its finding.
[77] If information on historic resources in the APE is not available, the federal action agency will require the licensee to determine (usually through surveys) what eligible properties exist within the APE.

properties are present or if listed properties will not be affected, then the action agency notifies the SHPO. The Section 106 consultation concludes if the SHPO does not object within 30 days.

II. Assessment of Adverse Effects (60 days). If the federal action agency concedes that the action will affect historic properties (or those eligible for listing), then the action agency must consult with the SHPO and Indian tribes to assess what effect the project would have on the historic properties. Concurrence on determination of effects is sought from the SHPO and tribes which then have 30 days to respond to the finding. The Section 106 consultation concludes if there is no response to the action agency's determination of effects. If the SHPO or a tribe objects and the action agency cannot resolve the objection, then the action agency will forward the objection to ACHP, which can provide its opinion.

III. Resolution of Adverse Effects (60 days). If the action agency concedes that the project will have adverse effects, then the action agency must consult with the SHPO and tribes on mitigation measures to protect the historic properties. If the parties agree, they can incorporate those measures into a Memorandum of Agreement (MOA)[78] between the federal action agency and the SHPO. If the project's effects on historic properties cannot be fully assessed before the action agency approves the project, consultation may result in a Programmatic Agreement (PA) between the SHPO and the action agency (e.g., FERC, COE).

Licenses require licensees to implement measures from the PA, including an Historic Properties Management Plan (HPMP), to resolve all identified adverse effects and to implement other necessary mitigation measures. If the action agency and the SHPO fail to agree on how to resolve adverse effects, then ACHP will make recommendations.

Process Time: No formal timeline exists, but project proponents are urged to begin consultation as early as possible. At least 30 days are necessary for each consultation stage. In general, it takes approximately 12 months for a MOA and approximately 24 months for a PA.

Legal Authority: Section 106 of the National Historic Preservation Act (16 USC § 470 et seq.).

3.21 CZMA Federal Consistency Determination

Section 307 of the CZMA requires that federally authorized activities be consistent with state coastal management policies (e.g., land use planning statutes, marine spatial planning, and water quality standards). The CZMA recognizes the importance of energy facilities and includes language to ensure states have a rational process for siting these facilities in their coastal zones, which considers the national interest in energy production as well as the national interest in protecting coastal resources. If a proposed project is located within a state's coastal zone or would affect a resource within a state's coastal zone, then the applicant must certify that the project is consistent with the state's coastal zone management policies. The NOAA Office of Coastal Management provides a general overview of the federal consistency review requirements and procedures on its website.[79] State consistency review procedures vary in how the federal requirements are implemented, so stakeholders should contact the appropriate state agency.

Lead Agency: Each state delegates a lead agency with the responsibility of performing CZMA consistency reviews and issuing consistency determinations. The lead state agency often coordinates with other state resource agencies in determining consistency with the enforceable policies of the state.[80]

Review Process: A federal consistency determination includes a summary of the effects of the project on coastal uses and resources and a set of findings demonstrating that the proposed activity will be consistent with state enforceable policies.[81] Certification generally consists of four main phases:

i. Applicant prepares consistency certification along with necessary data and information;[82]
ii. State agency performs an application completeness review;
iii. State agency conducts the consistency review;

[78] Others may be invited to join the MOA, but if they fail to do so then the MOA stands.
[79] https://coast.noaa.gov/czm/about/.
[80] NOAA's Office of Coastal Management provides mediation in the case of a CZMA dispute.
[81] Federal consistency review requirements and procedures are detailed in 15 CFR § 930.
[82] The CZMA federal consistency review process requires all "necessary data and information" which includes copies of all federal, state, and local license and permits applications.

iv. State agency issues a concurrence or an objection.

Instead of a concurrence or objection, a state may issue a conditional concurrence. If the conditions are acceptable to the federal action agency, they will be incorporated into the federal permit or license. For example, FERC applicants must provide a description of those conditions and assess the conditions in the appropriate section of the EA/EIS that accompanies the license application. If those conditions are not acceptable to the action agency, a conditional concurrence has the same effect as an objection. When a state issues an objection, the federal license or permit cannot be issued. A project applicant may file an appeal with the Secretary of Commerce showing grounds for overriding the state's objection.

Process Time: For federal authorizations, the designated state agency has up to six months from receipt of a complete certification to issue a consistency determination. If the designated agency fails to furnish the required notification within six months after receipt of the applicant's certification, the state's concurrence will be presumed.

Legal Authority: Coastal Zone Management Act (16 USC § 1451 et seq.).

3.22 Clean Water Act Section 401 Water Quality Certification

The purpose of CWA Section 401 is for states to use the Water Quality Certification (WQC) process to ensure that no federal license or permit authorizes an activity that would violate the state's water quality standards or become a future source of pollution. Applicants for federal authorization (e.g., FERC license, COE § 10 Permit) to construct or operate a facility that may result in discharge into navigable waters of the US must provide the federal licensing or permitting agency a certification from the state that the activity is consistent with applicable provisions of the CWA and with other water quality requirements set forth by the state.[83]

Lead Agency: Each state delegates a lead agency with the responsibility of performing WQC reviews and issuing certifications. The lead state agency often coordinates with other state resource agencies to determine consistency with the applicable water quality standards and provisions.

Certification: A Section 401 WQC is a written determination issued by the delegated state agency that the proposed activity complies with applicable provisions of the CWA and with other water quality requirements set forth by the state.[84] The lead state agency assesses a broad range of impacts, including pollution, temperature, turbidity, and flow to determine if a proposed activity will have negative impacts on water quality. If a state grants a WQC, it is in effect saying that the proposed activity will comply with state water quality standards. Additionally, a state may "conditionally grant" certification by limiting or conditioning the certification to ensure compliance with the water quality requirements.

A state may deny certification if the applicant does not demonstrate that the project will comply with applicable provisions of the CWA and with other water quality requirements set forth by the state. If a state denies certification, the federal licensing or permitting agency is prohibited from issuing a permit or license. Procedures vary by state, but a state's decision to grant or deny certification is generally subject to an administrative appeal. States may also waive WQC, either affirmatively or involuntarily. If the state fails to act on a certification request within one year after receipt of a complete certification request, it forfeits its authority to grant or deny certification.

Process Time: Based on the *Hoopa* decision, a WQC determination must be made within one year.[85]

Legal Authority: Clean Water Act Section 401 (33 USC § 1341)[86]

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[83] Applicants for a FERC license must file evidence of a request for WQC with FERC within 60 days of FERC's notice requesting terms, conditions, and recommendations.
[84] Depending on the scope and size of the project, each separate facility component, such as advanced water power energy conversion devices, anchoring systems, and transmission cables, may require a separate certification.
[85] https://www.environmentallawandpolicy.com/2019/01/d-c-circuit-strikes-withdraw-resubmit-practice-state-quality-certifications/
[86] https://www.epa.gov/cwa-401.

3.23 National Marine Sanctuaries Act

The National Marine Sanctuaries Act (NMSA) provides for the designation and protection of national marine sanctuaries, which are areas of the marine environment with special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archaeological, educational, or aesthetic qualities. In general, ocean renewable energy facilities cannot be located within national marine sanctuaries, but in certain circumstances prohibited activities may be allowed. However, ocean renewable energy activities could affect sanctuary resources even if they do not occur within the sanctuary. For example, construction of an ocean renewable energy project located adjacent to a sanctuary may involve heavy vessel traffic that could harm a protected marine species within the sanctuary. Pursuant to NMSA Section 304(d), if a federal action agency determines that a proposed project is "likely to destroy, cause the loss of, or injure a sanctuary resource," then it must engage in formal consultation under NMSA.

Lead Agency: The NOAA Office of National Marine Sanctuaries (ONMSs) is responsible for managing and protecting national marine sanctuaries. ONMS utilizes management plans, regulations, permitting, research, and monitoring to protect and conserve sanctuary resources and to allow uses that are compatible with resource protection. Each sanctuary has a superintendent who is the point of contact for consultations.

Consultation: Federal action agencies are responsible for determining whether consultation is required, and it is their responsibility to initiate the NMSA consultation process. If consultation is necessary, it should occur concurrently with the NEPA analysis documentation for the proposed project. When a federal agency determines that consultation is necessary, it must prepare a Sanctuary Resource Statement describing the proposed action and its potential effects on sanctuary resources. The information required for the resource statement varies from project to project, but in general, it should describe the location, timing, and methods of the proposed project. An on-site survey, literature review, and copies of all issued and/or applied project authorizations may also be necessary.

The consultation process officially begins when the Sanctuary Resource Statement is submitted to ONMS. The resource statement may be developed as part of other environmental documentation prepared for the project, such as the project's NEPA analysis documentation or EFH assessment. Federal action agencies are strongly encouraged to submit the Sanctuary Resource Statement at the earliest practicable time, but it must be submitted at least 45 days before final approval of the proposed project by the federal action agency (unless an alternative timeframe is agreed upon by the agencies). ONMS evaluates the resource statement to assess the degree and duration of potential effects and makes a determination within 45 days of receiving a complete resource statement (unless an alternative timeframe is agreed upon by the agencies).

If ONMS determines that the proposed action is not likely to cause injury to or loss of sanctuary resources, then it notifies the federal action agency and concludes consultation. If ONMS determines that the proposed action is likely to cause injury to or loss of sanctuary resources, then it coordinates with the federal action agency to develop recommended alternatives to protect sanctuary resources. The recommendations may consist of alternate locations, timing or methods, and they may be incorporated into the project plan or conducted in addition to the project. In some cases, specific monitoring requirements may be included in the recommendations to document any changes in sanctuary resources. If the action agency decides to fully implement the recommended alternatives, then no further action is necessary, and consultation concludes. However, if the agency chooses not to follow the ONMS recommendations, then it must provide a written explanation to ONMS. If this course of action is taken and the project results in the destruction of, loss of, or injury to a sanctuary resource, the agency must promptly prevent and mitigate further damage and restore or replace the sanctuary resource in a manner approved by ONMS.

Legal Authority: National Marine Sanctuaries Act (16 USC 1431 et seq.); (Pub. L. 100-627).

Regulatory Authority: 15 CFR Part 922

3.24 Authorizations Relating to Federally Managed Lands[87]

The federal authorizations previously described in this chapter will likely apply to hydrokinetic projects regardless of whether the onshore facilities (e.g., transmission cables, substations, operations and maintenance facilities) are located on federal land, private land, or on land owned by a municipal or state government. However, if the onshore facility components are sited on or near lands managed by a federal agency such as NPS, BOR, BIA or others (USFS, BLM, DOD), then additional federal regulations and guidelines apply.

National Park Service: Applicants for FERC hydropower licenses are required to consult with NPS about recreational resources and historic and archaeological values. NPS provides technical assistance on FERC hydropower licensing proceedings to identify issues and work to resolve potential problems between industry and recreational user groups, work with local interest groups, industry, and state and other federal agencies, and assist NPS units affected by hydropower licenses, upon request.

NPS may make recommendations on proposed projects, primarily in regard to recreation access and facilities, instream flows for recreation, and/or riparian corridor and conservation buffer zone protection. In addition, NPS has authority to require mandatory conditions for select units of the National Park system, depending on the authorizing legislation.

Legal Authority: The FPA, as amended, requires consultation with NPS (18 CFR 4.38(a); 18 CFR 5.1 (d); and 18 CFR 16.8(a)); identifies topics for consultation (18 CFR 4.51(f)(4) & 18 CFR 4.51(f)(5)). Under FPA Section 797(a), FERC is not authorized to issue hydropower licenses in National Parks and National Monuments.

Under FPA Section 4(e), FERC may only issue a license for the development, transmission, and utilization of power by a project that touches federal land *after* finding that the license will not interfere or be inconsistent with the purpose and function of the federally managed land. The agency with jurisdiction over the land may subject any FERC license to conditions deemed necessary for the protection and continued use of the land. In addition, there may be specific requirements and restrictions for establishing rights-of-way across lands under NPS jurisdiction.

The Outdoor Recreation Act of 1963 (PL88-29) provides for NPS technical assistance about outdoor recreation resources (16 USC 4601-1).

The Wild and Scenic Rivers Act of 1968 (PL90-542) prohibits the licensing of hydropower projects on rivers designated as "National Wild and Scenic Rivers" [§ 7(a) and (b), 16 USC 1278(a) and (b)]. This act also provides for specific consultation procedures and NPS assistance related to river resources located above, below, and on tributaries of designated rivers [§ 11(b), 16 USC 1282(b)]. Further, it requires federal agency consideration for potential wild, scenic, and recreational river areas [(§ 5(d), 6 USC 1276(d)] (www.rivers.gov).

The National Trails System Act of 1968 (P.L. 90-543, as amended through P.L. 107-325) provides for NPS technical assistance about trails (§ 11, 16 USC 1250).

The Land and Water Conservation Fund (LWCF) Act [§ 6(f)] ensures that federal investments in LWCF assistance are maintained in public outdoor recreation use. Therefore, NPS-managed land cannot be converted from public recreation use to use for other purposes without NPS approval. Approval requires the substitution of property of reasonably equivalent usefulness and location and of at least equal fair market value. The federal Lands to Parks program has specific conversion requirements [40 USC § 550 (b), (e); 41 CFR § 102-75.625 through 75.690].

Bureau of Reclamation. BOR provides guidance for authorizations to use its lands in a manual that sets out BOR's standard procedures for issuing "use authorization" documents such as easements, leases, licenses, and permits for project activities on or across BOR lands, facilities, and water surfaces.[88] BOR grants use authorizations only when the proposed use is compatible with BOR purposes and is consistent with applicable Resource Management Plans; further, BOR reserves the right to refuse to authorize any use that may be incompatible with the federally authorized purposes of BOR projects or interferes with BOR's rights or operations.

[87] This section is not exhaustive. Early in the siting process, project proponents should determine which federal agency manages onshore lands adjacent to a proposed hydrokinetic project and identify the additional authorization processes that will be involved.

[88] Directives and Standards, LND 08-01.

Bureau of Indian Affairs. BIA works with tribal governments to manage activities on tribal lands such as renewable energy development. In order to promote tribal oversight and management of energy resources, the Indian Tribal Energy and Self-Determination Act[89] authorizes DOI to enter into "Tribal Energy Resource Agreements" with Indian tribes. Together, BIA and tribal governments are authorized to grant rights-of-way across tribal lands for energy resources, transmission lines, and natural gas and oil pipelines.

Other Issues Involving Federal Agencies. Numerous federal authorities provide guidelines for assessing potential environmental and human use impacts, including impacts to recreation, land use, and aesthetic resources. In the context of ocean renewable energy development, the FPA, in conjunction with certain FERC guidelines, requires "equal consideration" of power generation and public interest, including recreation, land use, and aesthetics. Similarly, ECPA requires that FERC give "equal consideration to power and non-power values" when issuing licenses, and recreation, land use, and aesthetics are considered a non-power value.

Pursuant to these requirements, FERC license applicants must address recreation, land use, aesthetics, and wildlife resources related to recreation in their draft license applications. Specifically, applicants must describe recreation opportunities and land uses within the project boundary, the visual characteristics of the lands and waters affected by the proposed project, and the distribution of wildlife with important commercial, recreational or cultural value. In addition to providing baseline information about recreation, impacts to recreation may need to be addressed in the project study plans. The information described in the following paragraphs is required by FERC as part of both pilot and conventional licensing (as listed below and described in 18 CFR § 5.6).

Recreation and Land Use. FERC license applicants must provide a description of the existing recreational and land uses and opportunities within the project boundary (18 CFR § 5.6(viii). The components of this description include:

- Text description illustrated by maps of existing recreational facilities, type of activity supported, location, capacity, ownership and management;
- Current recreational use of project lands and waters compared to facility or resource capacity;
- Existing shoreline buffer zones within the project boundary;
- Current and future recreation needs identified in current State Comprehensive Outdoor Recreation Plans, other applicable plans on file with FERC, or other relevant local, state, or regional conservation and recreation plans;
- If the potential applicant is an existing licensee, its current shoreline management plan or policy, if any, with regard to permitting development of piers, boat docks and landings, bulkheads, and other shoreline facilities on project lands and waters;
- A discussion of whether the project is located within or adjacent to a river segment that is designated as part of, or under study for inclusion in, the National Wild and Scenic River System or a state-protected river segment;
- Whether any project lands are under study for inclusion in the National Trails System or designated as, or under study for inclusion as, a Wilderness Area.
- Any regionally or nationally important recreation areas in the project vicinity;
- Non-recreational land use and management within the project boundary; and
- Recreational and non-recreational land use and management adjacent to the project boundary.

DOE, NPS, and the Hydropower Reform Coalition have prepared a comprehensive guidance document, *Hydrokinetic Energy Projects and Recreation: A Guide to Assessing Impacts*[90] that evaluates impacts of new hydropower technologies on recreation and provides strategies for studying and addressing those impacts. In addition to identifying potential impacts of hydrokinetics to recreation, the guide describes studies and protection strategies for avoiding, minimizing, and mitigating impacts. This guidance document is an excellent resource, and readers are encouraged to refer to it for further information on this topic.

Aesthetic Resources. FERC license applicants must provide a description of the visual characteristics of the lands and waters affected by the project. Components of this description include a description of the dam, natural water

[89] Title V of EPAct of 2005.

[90] https://tethys.pnnl.gov/publications/hydrokinetic-energy-projects-recreation-guide-assessing-impacts.

features, and other scenic attractions of the project and surrounding vicinity. Potential applicants are encouraged to supplement the text description with visual aids [18 CFR § 5.6(ix)].

Wildlife Information Related to Recreation. FERC license applicants must provide information about the temporal or spatial distribution of species considered important because of their commercial, recreational, or cultural value [18 CFR § 5.6(v)(b)].

Presence or Absence of Underwater Cables. While they are not statutory authorizing bodies in this context, NOAA's Nautical Data Branch, the U.S. Naval Seafloor Cable Protection Office, and the Federal Communications Commission all play a role in confirming the presence or absence of underwater cables. Hydrokinetic project applicants are expected to check for subsea data cables, consult with the owners, and demonstrate either appropriate spacing or other measures for safe coexistence. These agencies can help applicants search for cables near a proposed project site.

3.25 Federal Authorizations Roadmaps

The following roadmaps are process schematics which show the approximate timing and sequence of the principle federal authorizations involved in siting hydrokinetic projects. The joint *BOEM/FERC Guidelines on Regulation of Marine and Hydrokinetic Energy Projects on the OCS* provides similar timing and sequence information in tabular format.[91] The BOEM publication *A Citizen's Guide to the Bureau of Ocean Energy Management's Renewable Energy Authorization Process* also provides timing and sequence information.[92]

3.25.1 Hydrokinetic Projects in State Waters

Test Project (Non-Grid Connected). Some test-scale hydrokinetic projects, whether in state waters or on the OCS, do not require a FERC license. Roadmap 1 ("Non-Grid Connected Pilot Project in State Waters") depicts the authorization process for a test project of this nature. In this situation, COE would be the lead federal agency for the project NEPA review. Test projects are generally used for the purposes of collecting data on device performance in the marine environment.

Pilot Project (Grid Connected). Some small-scale hydrokinetic projects, whether in state waters or on the OCS, are considered "pilot" projects and may be licensed under the FERC Pilot License Process, as depicted in Roadmap 2 ("Pilot Scale, Grid-Connected Hydrokinetic Project in State Waters"). In this situation, FERC would be the lead federal agency for the project NEPA review.

Commercial Project in State Waters. For commercial-scale hydrokinetic projects that require a FERC hydropower license, an overview of the authorization process is depicted in Roadmap 3 ("Commercial Hydrokinetic Project in State Waters").

3.25.2 Hydrokinetic Projects on the Outer Continental Shelf

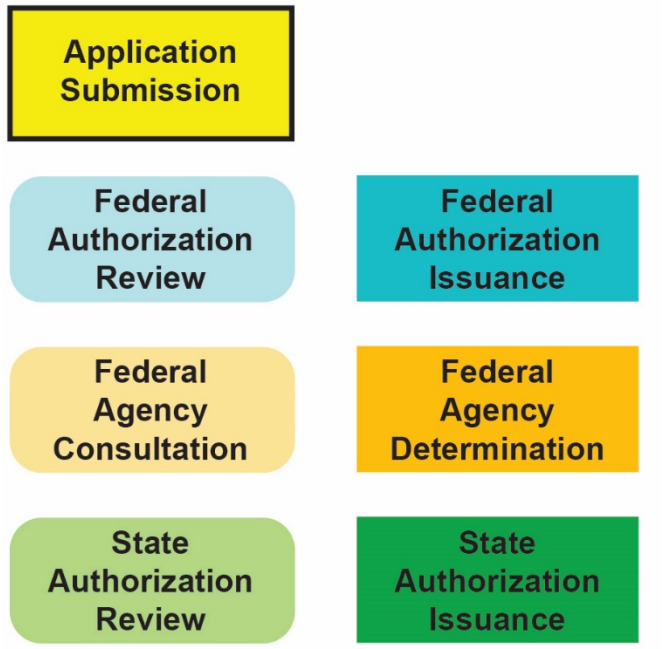
Some hydrokinetic projects may be sited on the OCS, an area that includes all submerged lands between the seaward extent of state waters (typically three nautical miles from shore) and the seaward extent of US jurisdiction (approximately 200 nautical miles from shore). Hydrokinetic projects located partially or wholly on the OCS require a lease from BOEM, which may be issued competitively or noncompetitively.

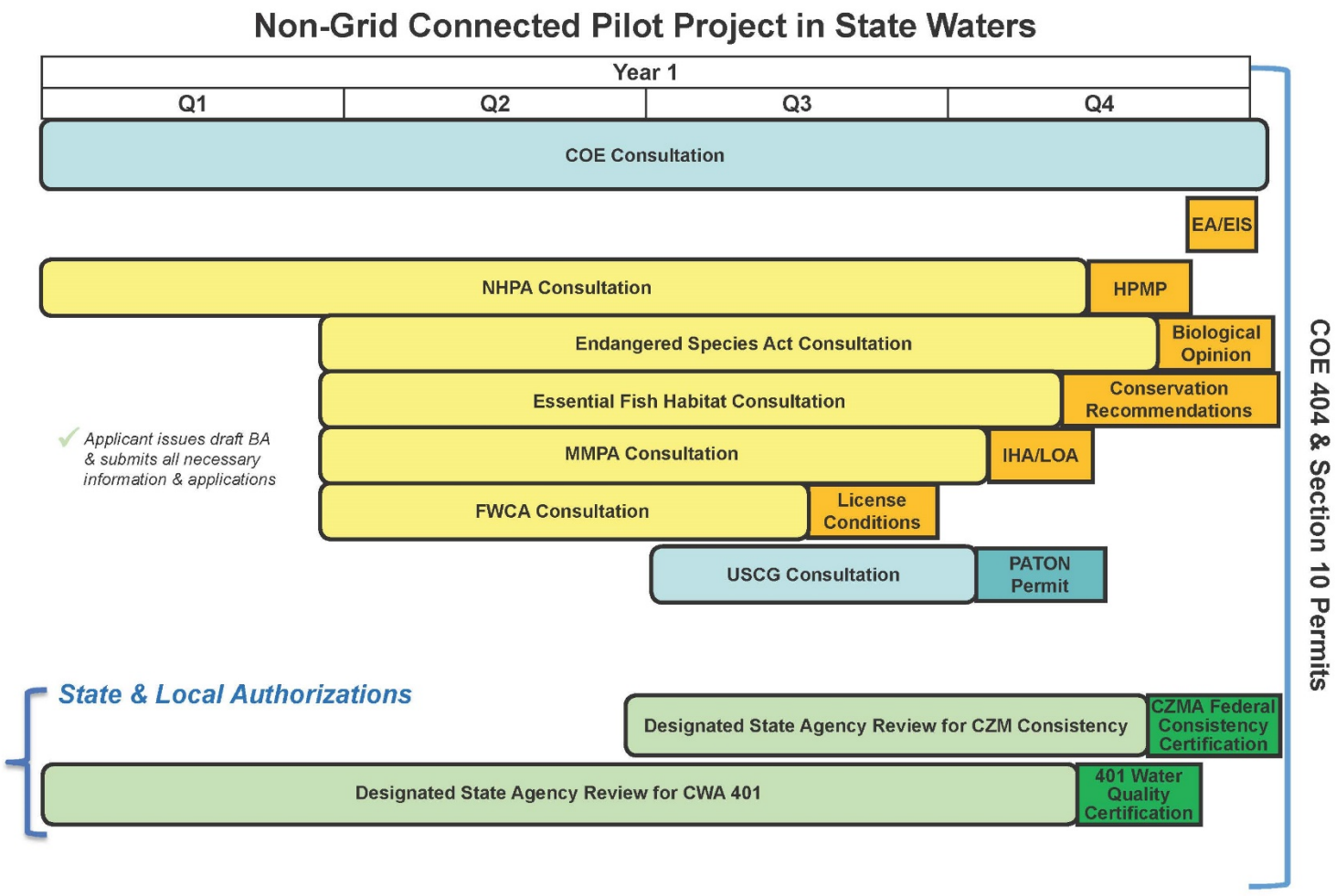
Noncompetitive Lease. Roadmap 4 ("Determination of No Competitive Interest for Projects on the OCS") shows the lease acquisition process in the context of a Determination of No Competitive Interest, and Roadmap 5 ("Non-Competitive Commercial Lease & FERC Standard License for Projects on the OCS") shows the review process for a noncompetitively issued lease.

Competitive Lease. Roadmap 6 ("Determination of Competitive Interest & Competitive Lease Award for Projects on the OCS") shows the lease auction process in a situation where BOEM has determined that competitive interest does exist. Roadmap 7 ("Competitive Commercial Lease & FERC Standard License for Projects on the OCS") shows the review process for a competitively issued lease.

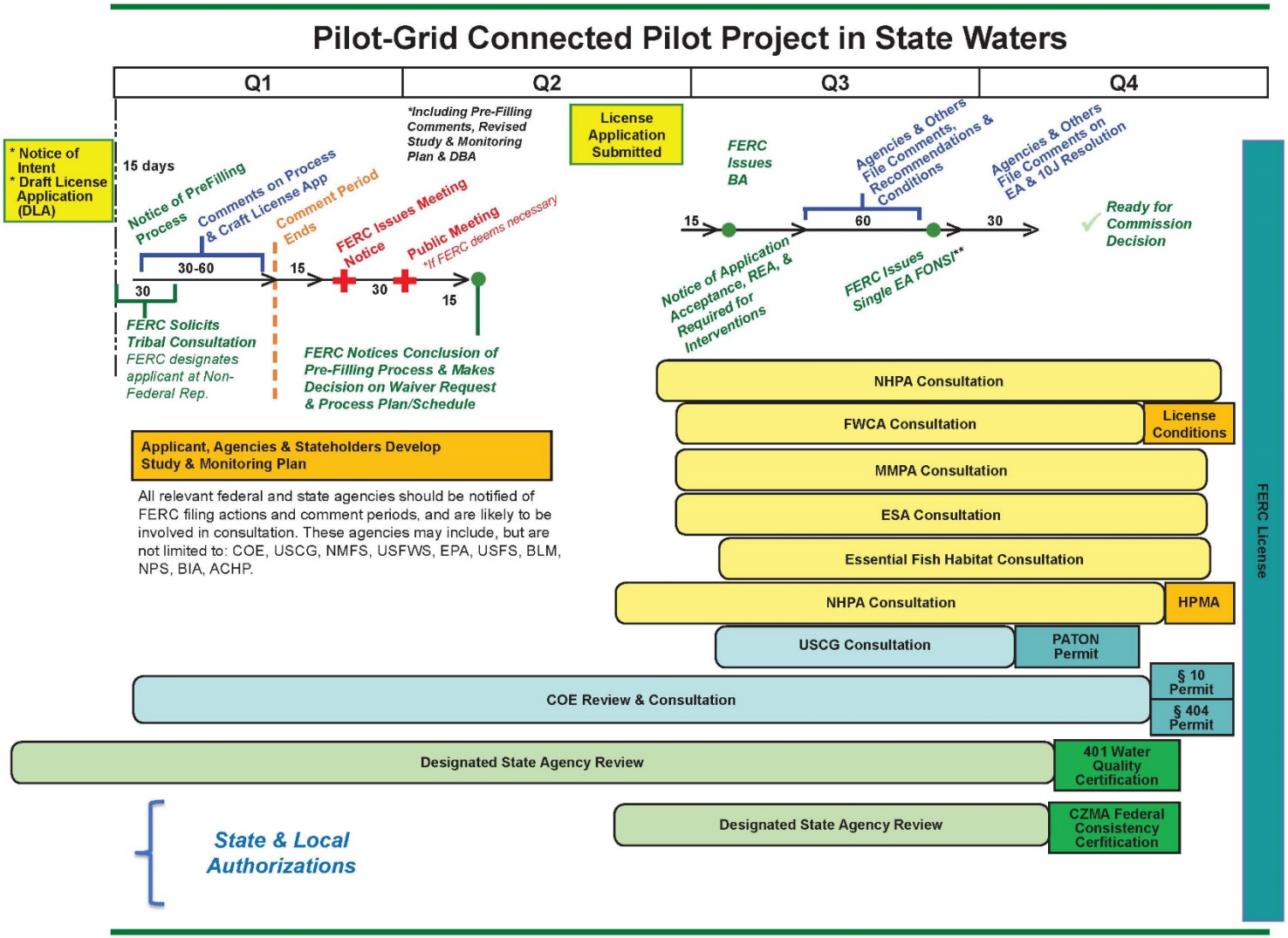
[91] https://www.boem.gov/BOEM-Newsroom/Press-Releases/2012/BOEM-FERC-staff-guidelines-pdf.aspx
[92] https://www.boem.gov/sites/default/files/renewable-energy-program/KW-CG-Broch.pdf

The types of authorizations are color coded in the roadmaps as follows

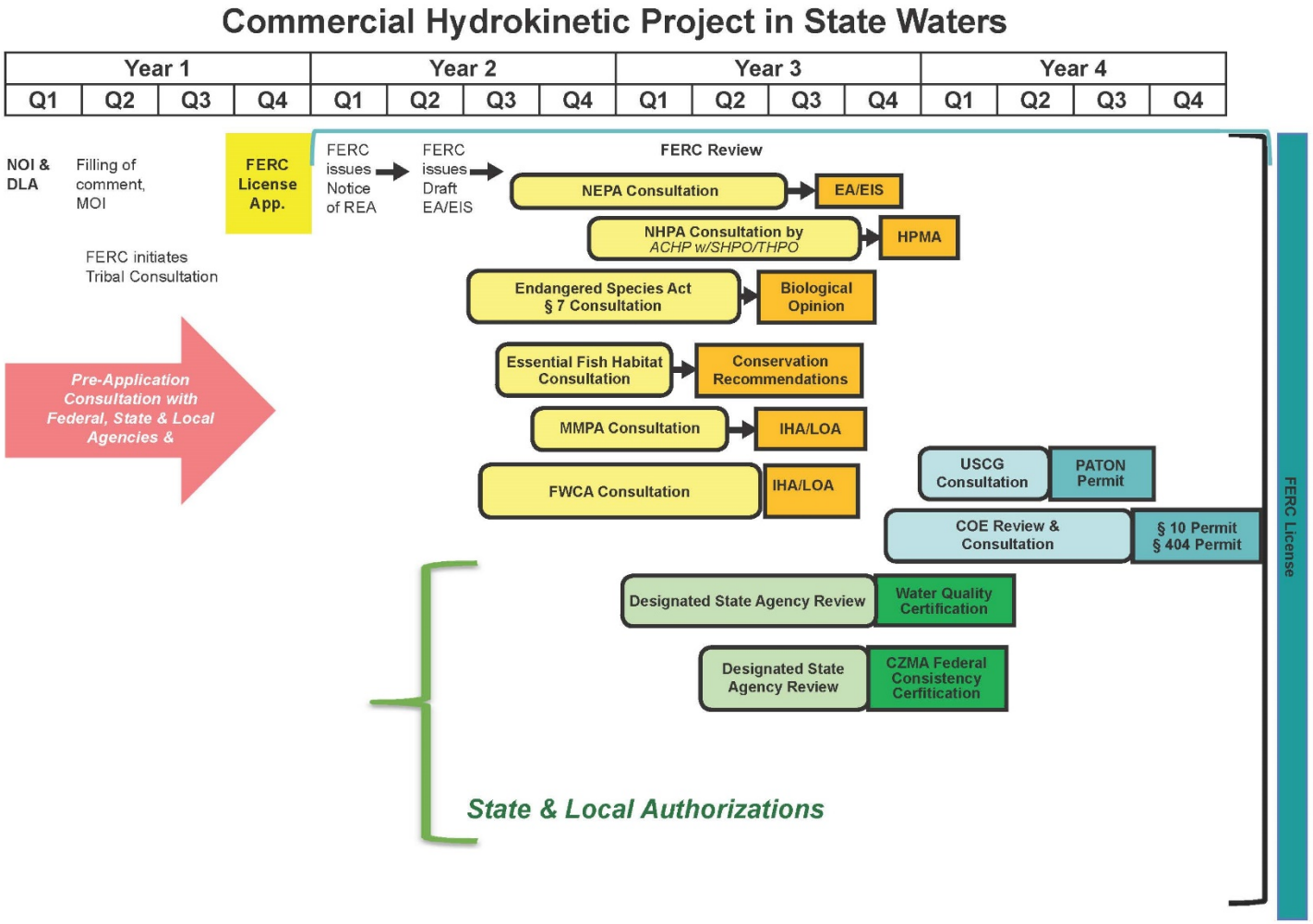




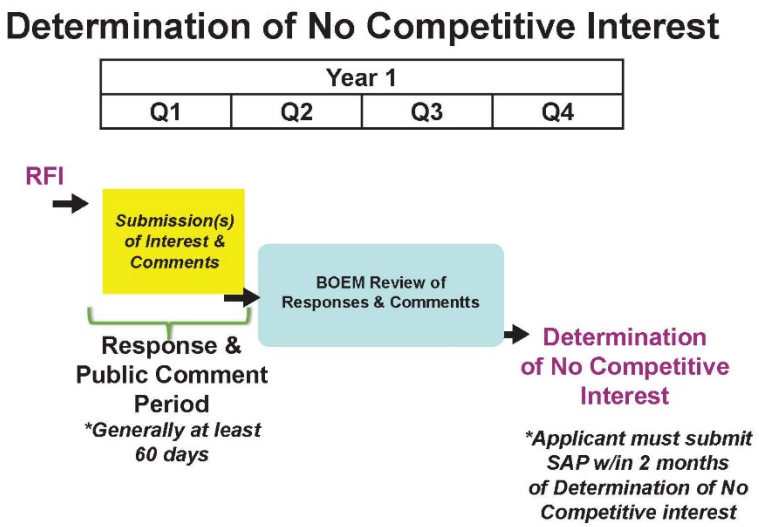
Roadmap 1. Non-Grid Connected Pilot Project in State Waters



Roadmap 2. Pilot Scale, Grid-Connected Hydrokinetic Project in State Waters

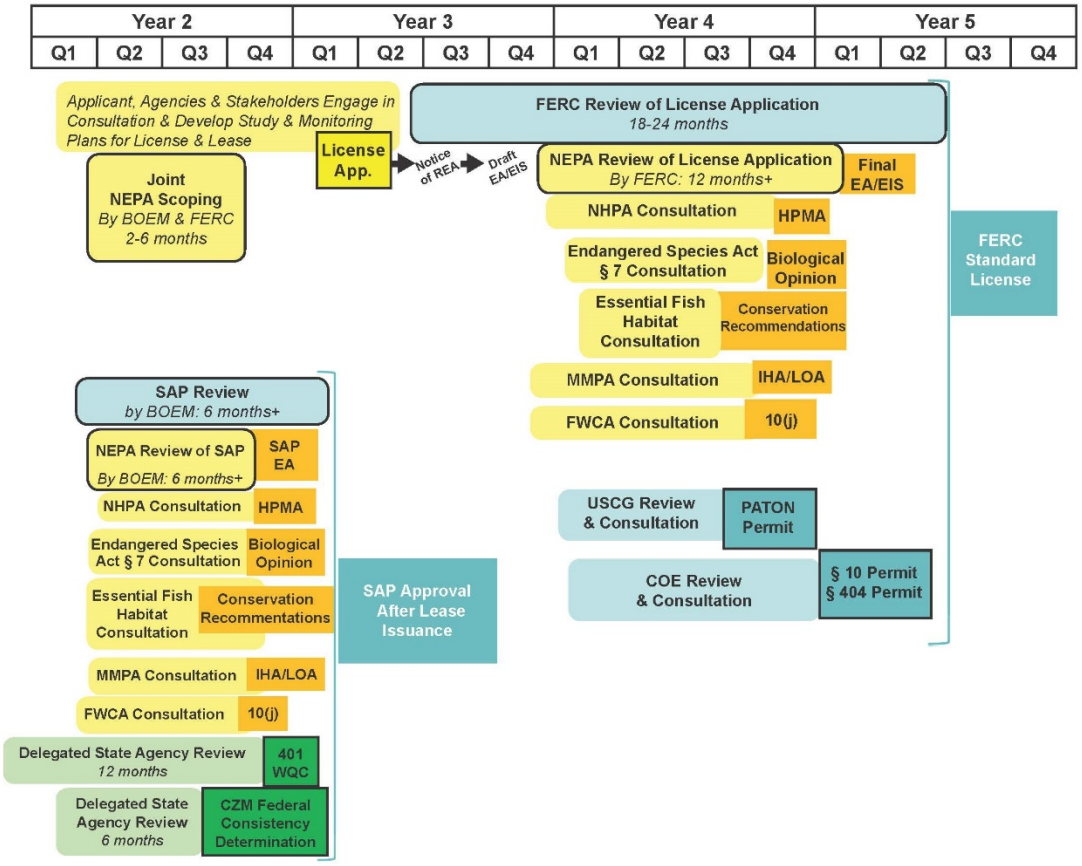


Roadmap 3. Commercial Hydrokinetic Project in State Waters

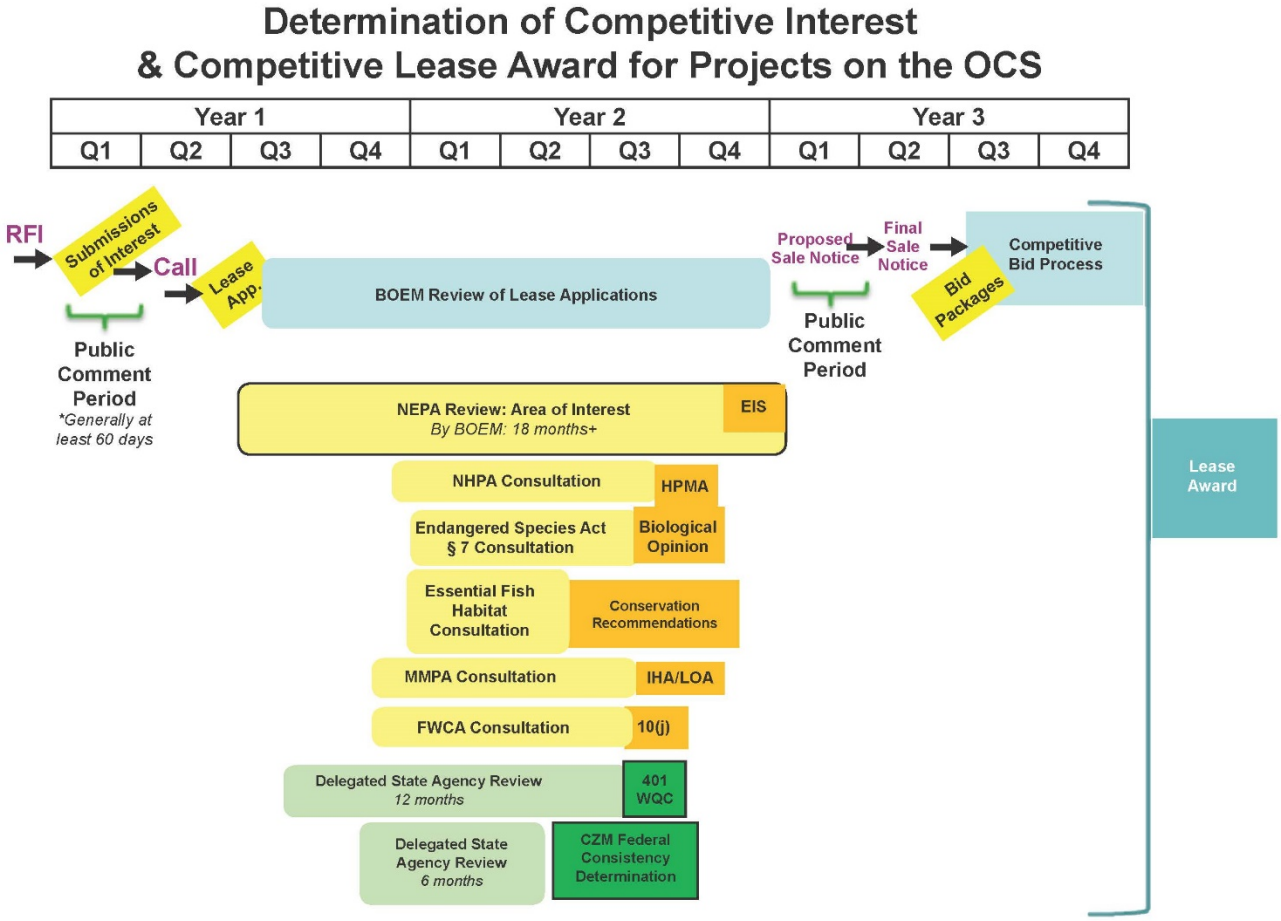


Roadmap 4. Determination of No Competitive Interest for Projects on the OCS

Non-Competitive Commercial Lease & FERC Standard License for Projects on the OCS

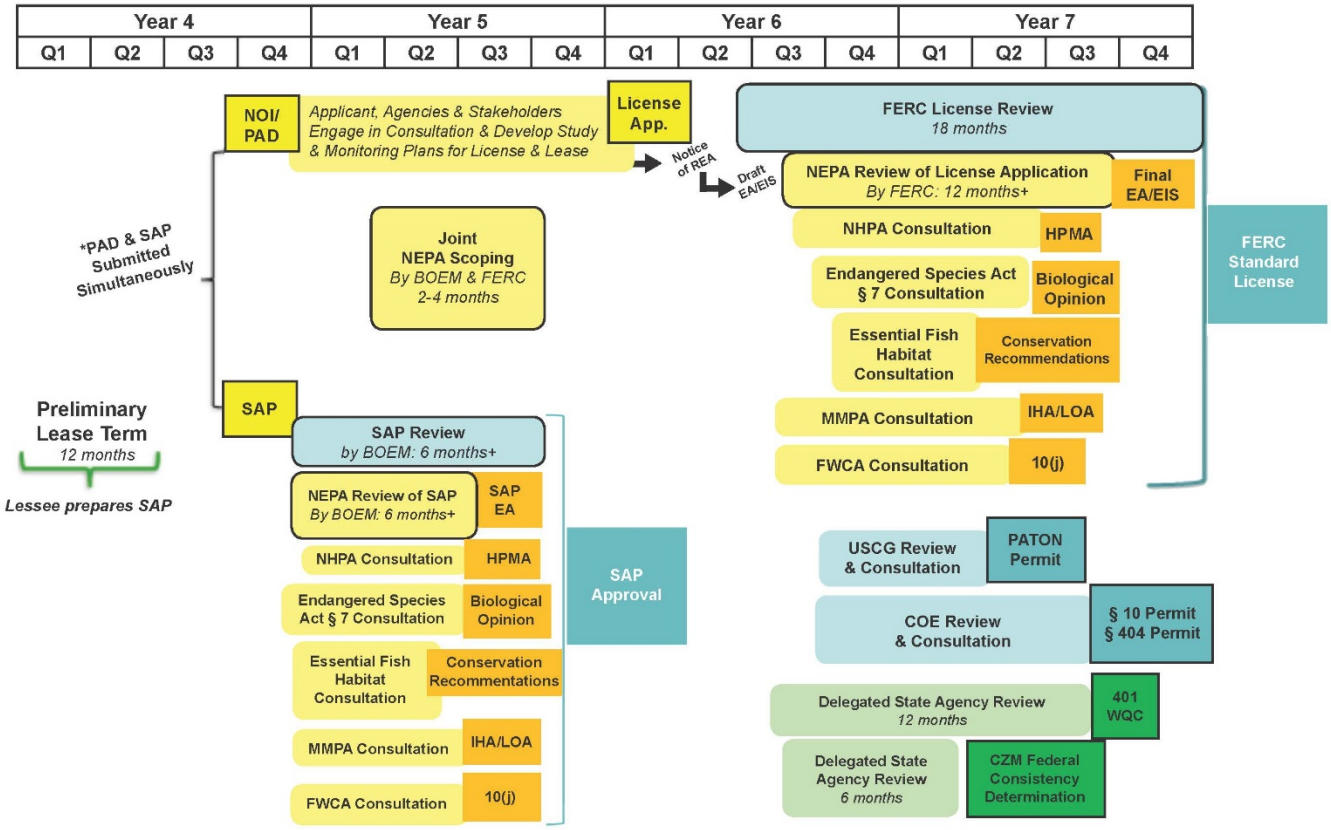


Roadmap 5. Non-Competitive Commercial Lease & FERC Standard License for Projects on the OCS



Roadmap 6. Determination of Competitive Interest & Competitive Lease Award for Projects on the OCS

Competitive Commercial Lease & FERC Standard License for Projects on the OCS



Roadmap 7. Competitive Commercial Lease & FERC Standard License for Projects on the OCS

3.26 Federal Agency Contact Information

Advisory Council on Historic Preservation
www.achp.gov
401 F Street NW, Suite 308
Washington, DC 20001-2637
202.517.0200

Bureau of Land Management
www.blm.gov
1849 C Street NW, Rm 5665
Washington, DC 20240
202.208.3801

Environmental Protection Agency
www.epa.gov
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460
202.564.4700

Federal Energy Regulatory Commission
www.ferc.gov
888 First Street, NE
Washington, DC 20426
202.502.6769

Bureau of Ocean Energy Management – Office of Renewable Energy Programs
https://www.boem.gov/Renewable-Energy/
45600 Woodland Road
VAM-OREP
Sterling, VA 20166
703.787.1300

National Marine Fisheries Service
https://www.fisheries.noaa.gov/
1315 East-West Highway
Silver Spring, MD 20910
301.713.2334

National Oceanic Atmospheric Administration
http://noaa.gov
1401 Constitution Ave. NW, Rm 5128
Washington, DC 20230
301.713.3155

State Historic Preservation Offices
https://www.nps.gov/shpo/

Tribal Historic Preservation Offices
https://www.nps.gov/history/tribes/tribal_historic_preservation_officers_program.htm

US Army Corps of Engineers
www.usace.army.mil
441 G. Street NW
Washington, DC 20314-1000
202.761.5903

US Coast Guard
www.uscg.mil/
2703 Martin Luther King, Jr. Ave., SE
Washington, DC 20032

US Department of Energy
www.energy.gov
1000 Independence Ave., SW
Washington, DC 20585
202.586.5000

US Fish and Wildlife Service
www.fws.gov
5275 Leesburg Pike, MS: FAC
Falls Church, VA 22041-3803
703.358.2161

US Forest Service
www.fs.fed.us
1400 Independence Ave., SW
Washington, DC 20250-1111
800.832.1355

US Geological Survey
www.usgs.gov
12201 Sunrise Valley Drive
Reston, VA 20192
703.648.5953

4 Alaska

4.1 Introduction to Alaska Agencies and Authorizations

Alaska has three state agencies primarily responsible for managing its natural resources. The Department of Natural Resources (DNR) manages state-owned land and natural resources, and uses of these areas are authorized through permits, easements, sales, and leases. The Department of Environmental Conservation (DEC) conserves, improves, and protects Alaska's natural resources and environment to enhance the health, safety, economic, and social well-being of Alaskans. The Department of Fish and Game (DFG) manages the state's fish and wildlife and their habitats.

4.2 List of Alaska Acronyms

CWA	Clean Water Act
DEC	Department of Environmental Conservation
DFG	Department of Fish and Game
DMLW	Division of Mining, Land and Water
DNR	Department of Natural Resources
FERC	Federal Energy Regulatory Commission
Habitat	Department of Fish and Game, Division of Habitat
ROW	Right-of-Way
WQC	Water Quality Certification

4.3 Summary Table of Alaska Authorizations

Authorization/Review	Primary Legal Authority	Lead Agency	Anticipated Process Time
§ 401 Water Quality Certification	Clean Water Act § 401	Department of Environmental Conservation	Up to 1 year
Land Use Permit, Right-of-Way	Alaska Stat. § 38.05850; Alaska Admin. Code, Title 11, § 51	Department of Natural Resources, Division of Mining, Land and Water	Varies by project
Tidelands Lease	Alaska Stat. § 38.05070-.05075; Alaska Admin. Code, Title 11, § 62		Up to 1 year
Fish Habitat Permit	Alaska Stat. § 16.05.871 (Anadromous Fish Act), § 16.05.841 (Fishway Act)	Department of Fish and Game, Division of Habitat	Varies by project
Special Area Permit	Alaska Admin. Code Title 5, § 95.420		Varies by project

4.4 Clean Water Act Section 401 Water Quality Certification

The purpose of Clean Water Act (CWA) Section 401 is for states to ensure that no federal license or permit authorizes an activity that would violate the state's water quality standards or become a future source of pollution. A Section 401 water quality certification (WQC) covers construction, operation, maintenance, and decommissioning of a proposed project, and conditions of the WQC become conditions of the federal license or permit. All aspects of the project, including energy production devices and any cables in, on, or under state waters (including wetlands) are considered in the review.

Lead Agency: In Alaska, WQC applications for projects requiring a Federal Energy Regulatory Commission (FERC) license are reviewed by DEC.[1] In cases where a project is subject to exhaustive environmental review as

[1] http://dec.alaska.gov/index.htm.

part of the FERC licensing process, DEC may choose to waive the WQC to reduce duplicative efforts by the reviewing agencies and the project proponent. However, this situation usually applies to small-scale hydro projects and would not necessarily be applicable to wave or tidal energy projects.[2]

Review Process: When an application is received and deemed complete,[3] DEC commences its review. A project proponent must identify all the local, state, and federal authorizations required for the project and provide copies of either the actual license or permits or applications for them. After review of the application, all relevant data, and any recommendations from stakeholders, DEC issues its decision.

Certification - Certification is issued if DEC finds the proposed project will comply with water quality standards. Conditions may be imposed to mitigate potential impacts, and such conditions must be included in the federal license or permit.

Denial - The state will deny certification if DEC finds the project will not comply with water quality standards or with procedural requirements (e.g., required environmental review documentation is not finalized). Denial due to failure to meet procedural requirements is called "denial without prejudice." Once the procedural deficiency is addressed, the application for WQC may be reconsidered. Alternatively, if an applicant realizes that a procedural deficiency exists, they can avoid a denial by withdrawing the request for certification. If certification is denied, the federal permit or license cannot be issued.

Process Time: Based on the *Hoopa* decision, a WQC determination must be made within one year.[4]

Legal Authority: Clean Water Act Section 401 (33 USC § 1341); ALASKA STAT. Section 46.03020; ALASKA ADMIN. CODE Title 18 sections 15, 70, 72.

4.5 Land Use Permit, Right-of-Way

Any commercial use or development of state-owned land, including tideland and submerged land, must be authorized by the DNR Division of Mining, Land and Water (DMLW). The type of authorization needed varies depending on the type and scope of a proposed activity. Within Alaska's current regulatory framework, wave and tidal energy projects will likely be authorized by a two-phase process:

1. Site-specific data collection would likely be authorized by a land use permit.
2. Construction and operations would likely be authorized by a combination of a lease and a right-of-way (ROW).

Land use permits and ROWs are authorizations issued to use state land, on a temporary basis for a variety of purposes. A land use permit does not convey any interest in the land and permanent structures are not allowed. For wave and tidal projects, a land use permit would likely be used for scientific research at a proposed project site, while a ROW would likely be issued for electric transmission and distribution lines.

Lead Agency: Within DNR, DMLW[5] manages all state-owned land[6] except for trust property and units of the Alaska State Park System.

Review Process: Once the forms, fees, and other necessary documents are received, the application is reviewed by DMLW and any other participants in the coastal consistency review process including other state agencies, federal agencies, coastal districts, and the public.

Term: A land use permit may be issued for a term of one to five years, while a ROW may be issued in perpetuity.

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[2] DEC determines whether a WQC is necessary on a case-by-case basis.
[3] A complete WQC application must include an application fee, deposit, and all information required by state law. Upon receipt, it is reviewed by the certifying agency to determine if it is complete. If incomplete, the applicant will be notified in writing, no later than 30 days after receipt of the application, of any additional information or action needed.
[4] https://www.environmentallawandpolicy.com/2019/01/d-c-circuit-strikes-withdraw-resubmit-practice-state-quality-certifications/
[5] http://www.dnr.state.ak.us/mlw/index.htm.
[6] All tide and contiguous submerged lands within the boundaries of the State of Alaska, except those otherwise provided for, from the mean high-water line and seaward three geographical miles from the mean low water line, or further as may in the future be determined, are vested in the State of Alaska. Alaska Admin. Code Title 11, § 62.010. Elevation varies by location. Contact the nearest DNR regional office for assistance.

Fees: Applications for land use permits and ROWs require an application fee set by regulation. DMLW will also set a reasonable rate or fee schedule for the use of the land.

Process Time: Applications are generally processed in the order they are received. DMLW is generally ready to make a decision on permit applications upon completion of the project's CZMA consistency review.

Legal Authority: ALASKA STAT. Section 38.05850, ALASKA ADMIN. CODE Title 11, Section 51.

4.6 Tidelands Lease

A tidelands lease authorizes use of tide and sovereign submerged lands for commercial and non-commercial purposes. There are two types of tidelands leases: negotiated and competitive. Most leases are issued without competitive auction but require the state to offer the lease competitively if there is interest. Negotiated leases are issued noncompetitively, but they may only be issued if the fair-market-value annual rental is less than $5000 and the lease term does not exceed ten years.[7]

Lead Agency: DMLW manages Alaska's 65 million acres of tidelands, shorelands, and submerged lands, including some 34,000 miles of coastline;[8] therefore, DMLW is also the lead agency for Tidelands Leases. For projects located within the coastal zone, applicants should submit an application for the appropriate land use authorization along with the Coastal Project Questionnaire.

Along with their application, project proponents need to submit a development plan that describes in detail the intended use of the land and the timetable for development. The plan should describe the type and location of any planned structures and the construction methods, scaled drawings of the structures, and a description of access, water, and power sources. Additional materials to be submitted with the application include a United States Geological Survey map showing the location of the property, a copy of any applicable licenses, and the names and addresses of the adjacent upland owners.

Review Process: Once the application form, application fee, and development plan are received, the lease proposal will be reviewed by DMLW and any other participants in the coastal consistency review process, including other state agencies, federal agencies, coastal districts and the public. The information in an applicant's development plan is used to determine the size of the proposed lease area, the lease terms and conditions, and the level of bonding and insurance required. If a lease proposal is approved, the land may have to be surveyed and appraised in order to determine the rental rate.[9]

Rental Rates: Competitive lease rates are fairly flexible and can be based on a number of factors: a percentage of the annual gross receipts; a guaranteed annual minimum rent or a percentage of gross receipts, whichever is greater; the fair market rental value; a fixed annual rent that is not less than the fair market rental value; a fee for each user; other compensation acceptable to the Commissioner; or a combination of these options. If a lease is issued noncompetitively, the appraisal generally sets the rental rate.

Non-Rental Costs: Generally, applicants are required to post a bond and/or acquire insurance. If a lease is issued competitively, any survey and appraisal costs paid for in advance are usually refundable to unsuccessful bidders. If the lease is issued noncompetitively, the applicant must pay for the cost of issuing legal notices, land survey and appraisal.

Lease Size: Although there is no limit on the amount of land that may be applied for in a lease proposal, the size of the lease parcel is generally limited to the smallest amount of land needed for the proposed use.[10]

Lease Term: In determining a lease term, state land managers consider the proposed use of the land to be leased and how long it will take to amortize the cost of the lessee's activities on the land. The maximum term for a lease is

[7] DNR may also negotiate a lease at appraised market value with a licensed public utility. In any situation, the Director may require a lease to be issued competitively if he or she believes that it is in the best interest of the state.
[8] *Tidelands* are that portion of the intertidal zone below the elevation of mean high water. *Submerged lands* are those below the lowest tidal elevation.
[9] If the area to be leased is unclassified, then a land plan must be adopted, and a classification issued, which involves agency review and a public notice and comment period.
[10] The size of non-competitive leases may also be limited by the value of the land being leased.

55 years; however, it is unusual for leases to be issued for this length of time, and land plans often specify lease terms. If the state decides to issue another lease at the end of a lease term, it may offer a competitive lease holder a preference right (the right to renew the lease) for a period not greater than the original term. If a lease is issued noncompetitively, it cannot be renewed. However, lessees may apply for another lease before their current lease term expires.

Process Time: Lease applications are generally processed in the order they are received. Applicants should initiate the leasing process at least one year in advance of the date they need the lease.[11]

Legal Authority: ALASKA STAT. Section 38.05070-.05075; ALASKA ADMIN. CODE Title 11, Section 62.

4.7 Special Area Permit

The Alaska State Legislature has classified certain areas as refuges, critical habitat areas, or sanctuaries (collectively known as Special Areas) for the protection of important fish and wildlife habitats. Several of Alaska's Special Areas encompass the marine environment; therefore, it is possible that a portion of a wave or tidal energy project may affect one of these Special Areas. Authorization is required for any activity that may impact fish, wildlife, habitat, or existing public uses.

Lead Agency: DFG, Habitat, oversees land and water use activities in Special Areas.[12] Habitat authorizes land and water use activities with a *Special Area Permit*.

Review Process: Application[13] instructions may be obtained from the Habitat office with geographic responsibility for a project location. Public notice and hearings are not required. No application fee is required at this time.

Process Time: Varies by project.

Legal Authority: ALASKA STAT. Section 16.20.010-690; ALASKA ADMIN. CODE Title 5, Section 95.

4.8 Fish Habitat Permit

Alaska's Fishway Act[14] requires that an individual or government agency notify and obtain authorization from DFG Habitat for activities within or across a stream used by fish if it is determined that such uses or activities could represent an impediment to the efficient passage of resident or anadromous fish.

Similarly, the state's Anadromous Fish Act requires that project proponents provide prior notification and obtain permit approval from DFG before altering or affecting "the natural flow or bed" of a specified water body or fish stream. All activities within or across a specified anadromous water body require approval from Habitat, including construction, road crossings, gravel removal, mining, water withdrawals, the use of vehicles or equipment in the waterway, stream realignment or diversion, bank stabilization, blasting, and the placement, excavation, deposition, or removal of any material.

Lead Agency: DFG, Habitat, authorizes activities regulated under the Fishway Act and the Anadromous Fish Act with what is commonly referred to as a Fish Habitat Permit.

Review Process: Application instructions and specific requirements for fish habitat permits may be obtained from the Habitat office with geographic responsibility for a project location. Public notice and hearings are not required. No application fee is required at this time.

Process Time: Varies by project.

Legal Authority: Fishway Act (ALASKA STAT. § 16.05.841); Anadromous Fish Act (ALASKA STAT. § 16.05.871).

[11] The application process can be delayed if the development plan does not provide sufficient information.
[12] Except sanctuaries, which are regulated by the Division of Wildlife Conservation.
[13] http://www.adfg.alaska.gov/index.cfm?adfg=uselicense.main.
[14] http://www.adfg.alaska.gov/index.cfm%3Fadfg=habitatregulations.prohibited.

4.9 Alaska Agency Contact Information

Agency	Web Address	Mailing Address	City	State	Zip	Phone
Department of Fish and Game, Division of Habitat	http://www.adfg.alaska.gov/index.cfm?adfg=lands.main	333 Raspberry Road Suite 2068	Anchorage	AK	99518	907.267.2342
Department of Environmental Conservation	http://dec.alaska.gov/	410 Willoughby Ave., Suite 303	Juneau	AK	99811-1800	907.465.5180
Department of Fish and Game	www.adfg.state.ak.us	P.O. Box 115526, 1255 W. 8th St.	Juneau	AK	99811	907.465.4100
Department of Natural. Resources, Division of Mining, Land, and Water	www.dnr.alaska.gov/mlw	550 West 7th Ave., Suite 1360	Anchorage	AK	99501	907.269.8503

5 Washington

5.1 Introduction to Washington State Agencies and Authorizations

The State of Washington has consolidated the application process for environmental permitting with its Joint Aquatic Resources Permit Application (JARPA). JARPA consolidates permit application forms for certain federal, state, and local permits. JARPA may be used to apply for the following permits or authorizations:

- Hydraulic Project Approval (HPA) from Washington Department of Fish and Wildlife (WDFW)
- Clean Water Act (CWA) Section 401 Water Quality Certification (WQC) from Washington State Department of Ecology (Ecology)
- CWA Section 404 and Rivers and Harbors Act Section 10 permits from US Army Corps of Engineers (COE)
- Shoreline Management Act Permit from participating local city or county agencies
- Aquatic Use Authorization from the Washington State Department of Natural Resources (DNR)

The current JARPA can be accessed at http://www.epermitting.wa.gov/. The JARPA webpage contains specific instructions on how to complete and submit applications, and the following JARPA packet forms may be downloaded from the site: JARPA Application Form and attachments; Instruction A: Completing JARPA; and Instruction B: Help and Guidance.

The Governor's Office for Regulatory Innovation and Assistance (ORIA) provides statewide environmental permit information. Project proponents can find out which environmental permits are required for a proposed activity by calling ORIA or accessing its website. ORIA can also assist in determining if a local government agency will accept the JARPA form. It is recommended that applicants consult directly with government agencies responsible for permits/authorizations early in the planning process to ensure that all necessary approvals are obtained prior to beginning work, and ORIA can assist with this process.

In addition to the streamlined permit application process, Washington has also made efforts to coordinate federal and state authorizations for hydrokinetic projects. On June 4, 2009, Federal Energy Regulatory Commission (FERC) signed an MOU with the State of Washington to coordinate their reviews of proposals for non-federal water power projects in Washington state waters, affecting state waters, and on state-owned aquatic lands. Under the MOU, officials at FERC and in Washington agreed to the following:

1. They will notify each other when one becomes aware of a potential applicant for a preliminary permit, pilot project license, or license;
2. When considering a license application, they will agree upon a schedule for processing as early as possible. The schedule will include milestones, and FERC and Washington will encourage other federal agencies and stakeholders to help develop and comply with the schedule;
3. They will coordinate the environmental reviews of any proposed projects in Washington state waters. FERC and Washington also will consult with stakeholders, including project developers, on the design of studies and environmental measures; and
4. If Washington prepares a comprehensive plan on the siting of hydrokinetic projects, FERC will seek consistency with this plan when issuing a license for any hydrokinetic project.

5.2 List of Washington Acronyms

COE	US Army Corps of Engineers
CUP	Conditional Use Permit
CWA	Clean Water Act
DNR	Department of Natural Resources
DNS	determination of non-significance
Ecology	Washington State Department of Ecology
EFSEC	Energy Facility Site Evaluation Council
EIS	environmental impact statement

FERC	Federal Energy Regulatory Commission
HPA	Hydraulic Project Approval
JARPA	Joint Aquatic Resource Permit Application
NGO	non-governmental organizations
ORIA	(Governor's) Office for Regulatory Innovation and Assistance
PCHB	Pollution Control Hearings Board
SCA	Site Certification Agreement
SEPA	State Environmental Policy Act
SSDP	Shoreline Substantial Development Permit
WCZMP	Washington Coastal Zone Management Program
WDFW	Washington Department of Fish and Wildlife
WQC	Water Quality Certification

5.3 Summary Table of Washington State Authorizations

Authorization/Review	Primary Legal Authority	Lead Agency	Process Time
CZMA Federal Consistency Determination	Coastal Zone Management Act § 307	Department of Ecology	Up to 6 months
§ 401 Water Quality Certification	Clean Water Act, § 401; State Water Quality Rule	Department of Ecology	Up to 1 year
State Environmental Policy Act Review	Washington State Environmental Policy Act	Local or State Agency[1]	Variable[2]
Aquatic Use Authorization	Aquatic Lands Act, Aquatic Lands Management Guidelines	Department of Natural Resources	6-12 months
Hydraulic Project Approval	Hydraulic Code Rules, Construction Projects in State Waters	Department of Fish and Wildlife	Up to 45 days
Shoreline Permit (Variance, Conditional Use, or Substantial Development)[3]	Shoreline Management Act	Local government	Determined by local government and Ecology
Site Certification Agreement	Chapter 80.50 RCW Energy Facilities—Site Locations	Energy Facility Site Evaluation Council (EFSEC)	1 year or such later time as agreed to by EFSEC and the Project Applicant

5.4 Coastal Zone Management Act Federal Consistency Determination

In the CZMA, Congress created a federal-state partnership for management of coastal resources. Section 307 of the CZMA requires that federally licensed or permitted activities[4] and federal agency actions affecting coastal resources be consistent with state coastal management policies (e.g., land use planning statutes, marine spatial planning, and water quality standards).[5] A consistency determination is the process used to implement this requirement. Federal licensed or permitted activities and federal agency actions affecting coastal resources in any of the fifteen coastal

[1] If a local agency is responsible for issuing an authorization for the proposed project, then that local agency is the lead for the SEPA review process.
[2] If a DNS can be issued, then process time may only take three to six months; however, if an EIS is required, then process time may take up to 24 months or more.
[3] Depending on the specific location, size, and scale of the projects, one of these three types of shoreline authorizations will be required. Shoreline authorizations may be applied for with the JARPA.
[4] A federal license or permit includes any authorization, certification, approval, or other form of permission that any federal agency is empowered to issue to an applicant. 15 CFR § 930.51.
[5] The federal consistency review requirements and procedures are detailed in 15 CFR § 930.

counties[6] in Washington require certification that the project is consistent with the Washington Coastal Zone Management Program (WCZMP). Hydrokinetic projects will likely require a Section 404 Permit, a Section 10 Permit, and/or a FERC license, all of which require a consistency review.

Lead Agency: In Washington, the Department of Ecology (Ecology) is responsible for performing CZMA reviews and issuing consistency determinations. Ecology may coordinate with other state or local resource agencies in determining consistency with the enforceable policies of the WCZMP, as well as any interested parties[7] who choose to participate in the public outreach component of the consistency review.

Certification: The review process for a CZMA federal consistency determination requires a summary of the project effects on coastal uses and resources and a set of findings demonstrating that the proposed activity will be consistent with state enforceable policies. This means that the applicant must have all the approvals necessary for the project, including CWA Section 401 certification, and shoreline permit, before Ecology can issue a coastal zone consistency determination.

The certification process generally consists of four main phases.

1. Applicant prepares consistency certification along with necessary data and information;[8]
2. Ecology performs an application completeness review;
3. Ecology conducts the consistency review;
4. Ecology issues either a concurrence, a concurrence with conditions, or an objection.[9]

Ecology can attach mandatory conditions to the project in a conditional concurrence. If those conditions are acceptable to the federal action agency, they will be incorporated into the federal permit or license. If the conditions are not acceptable to the federal action agency, a conditional concurrence has the same effect as an objection. When Ecology issues an objection, the federal license or permit cannot be issued. However, an applicant may file an appeal with the Secretary of Commerce showing grounds for overriding the state's objection or conditional concurrence.[10]

Process Time: For federal licenses, permits, and other authorizations, Ecology has up to six months from receipt of a complete certification to issue a consistency determination.

Legal Authority: Coastal Zone Management Act (16 USC § 1451 et seq.).

5.5 Clean Water Act Section 401 Water Quality Certification

The purpose of CWA Section 401 is for states to ensure that no federal license or permit authorizes an activity that would violate the state's water quality standards or become a future source of pollution. A Section 401 WQC covers construction, operation, maintenance, and decommissioning of a proposed project, and conditions of the WQC become conditions of the federal license or permit. All aspects of the project, including energy production devices and any cables in, on, or under state waters (including wetlands) are considered in the review. Upland components such as staging areas or operation facilities impacting waters of the state also would be reviewed. Applicants for federal authorization (e.g., FERC license, COE [US Army Corps of Engineers] permits) to construct or operate a facility that may result in discharge to waters of the US must provide the federal action agency with a certification from the state demonstrating that the activity is consistent with federal water quality standards and water quality requirements set forth by the State of Washington.

Lead Agency: Washington State Department of Ecology.

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[6] Clallam, Grays Harbor, Island, Jefferson, King, Kitsap, Mason, Pacific, Pierce, San Juan, Skagit, Snohomish, Thurston, Wahkiakum, and Whatcom Counties are all coastal counties in Washington.
[7] Interested parties may include government agencies, tribal authorities, NGOs, and private citizens.
[8] The CZMA federal consistency review process requires all "necessary data and information," which includes copies of all federal, state, and local license and permit applications.
[9] If the state or its designated agency fails to furnish the required notification within six months after receipt of the applicant's certification, the state's concurrence with the certification is presumed.
[10] NOAA's Office of Coastal Management provides mediation in the case of a CZMA dispute.

Certification: Ecology assesses a broad range of impacts including pollution, temperature, turbidity, and flow to determine if a proposed activity will have negative impacts on water quality and/or designated uses. FERC license applicants must file evidence that they have applied for WQC within 60 days of FERC's notice requesting terms and conditions and recommendations. In the case of demonstration-scale projects that are not grid connected and do not require a FERC license, COE may determine that the proposed project meets the conditions of a nationwide permit. In such a case, Ecology would review the project to see if a WQC is required. [11] If not, Ecology would issue a Letter of Verification indicating that no WQC is required for the project.

If Ecology grants a WQC, it is in effect saying that the proposed activity will comply with state water quality standards. The WQC is issued in the form of an administrative order. Ecology may "conditionally grant" certification by placing limitations or conditions on the certification to ensure compliance with the water quality standards. However, Ecology may deny certification if the applicant does not demonstrate that the project will comply with state and federal water quality standards. If Ecology denies certification, the federal action agency is prohibited from authorizing the project.[12] Alternatively, Ecology may waive WQC either affirmatively or involuntarily. If Ecology fails to act on a certification request within one year after receipt of a certification request, then it forfeits its authority to grant or deny certification.

Prior to issuing a WQC, Ecology must issue a public notice. The public notice is often coordinated with COE as a joint notice and generally provides for a 30-day comment period. Ecology may consult with any interested parties (such as government agencies, tribal authorities, non-governmental organizations [NGOs], or private citizens) who choose to participate in the public outreach component of the review.

Process Time: Based on the *Hoopa* decision, a WQC determination must be made within one year.[13]

Legal Authority: Clean Water Act Section 401 (33 USC § 1341); State Water Pollution Control Act (Wash. Rev. Code § 90.48); State Surface Water Quality Standards.

5.6 State Environmental Policy Act (SEPA)

The Washington SEPA provides a way to identify possible environmental impacts that may result from governmental decisions. These decisions may be related to issuing permits for private projects, constructing public facilities, or adopting regulations, policies or plans.

Information provided during the SEPA review process helps agency decision-makers, applicants, and the public understand how a proposal will affect the environment. This information can be used to change a proposal to reduce likely impacts, or to condition or deny a proposal when adverse environmental impacts are identified.

Lead Agency: The lead agency for most private projects is the city or county in which the project is located. The lead agency[14] is responsible for identifying and evaluating the potential adverse environmental impacts of a proposal. This evaluation is documented and, in most cases, sent to interested parties (such as government agencies, tribal authorities, NGOs, or private citizens) for their review and comment.

Review Process: SEPA environmental review usually starts when a project proponent submits an application to an agency for a permit or license to construct a private project. The lead agency will first decide if environmental review is needed. If the proposed project is the type of project that has been "categorically exempt" from SEPA review, no further environmental review is needed.

To help streamline the environmental review process, state and local agencies can complete the SEPA review process by adopting a NEPA EA or environmental impact statement (EIS) if that document satisfies SEPA requirements. The lead agency decides the most appropriate approach on a case-by-case basis.

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[11] If COE cannot determine whether the proposed project meets the conditions of an Ecology-approved Nationwide Permit (NWP), then Ecology will determine whether a WQC is necessary.
[12] Ecology's decision to grant or deny certification may be appealed to the state's Pollution Control Hearings Board (PCHB) within 30 days of the decision; however, PCHB may not hear the case for six months or more.
[13] https://www.environmentallawandpolicy.com/2019/01/d-c-circuit-strikes-withdraw-resubmit-practice-state-quality-certifications/
[14] If a proposal involves securing a license or other approval from a local agency, that agency is usually the lead for the SEPA review process.

If the proposed project is not exempt, the applicant is usually asked to fill out an "environmental checklist." This checklist asks questions about the proposal and its potential impacts on the environment. The elements of the environment that are evaluated include earth, air, water, plants, animals, energy, environmental health, land use, transportation, public services, and utilities.

After the checklist has been completed, the lead agency reviews the checklist and other information about the proposal. If the lead agency needs additional information to evaluate the proposal, it may ask the applicant to conduct studies on the project site. The lead agency and applicant may also work together to modify the proposal to reduce likely impacts.

If the lead agency has enough information to determine that the proposal is unlikely to have a significant adverse environmental impact, the agency issues a determination of non-significance (DNS). If the information indicates the proposal is likely to have a significant adverse environmental impact, the lead agency requires the preparation of an EIS for the SEPA review.[15] The EIS includes an evaluation of alternatives to the proposal and measures that would eliminate or reduce the likely environmental impacts of the proposal.

The DNS or EIS prepared by the lead agency provides information to all agencies that must approve the proposal. The environmental information is considered along with technical, economic, and other information about the proposal by agency decision-makers as they decide whether or not to issue a license for the proposal.

SEPA gives agencies authority to condition a proposal when specific adverse environmental impacts are identified in the environmental documents. In rare cases, an agency may use SEPA authority to deny a permit or other approval when an EIS shows that reasonable mitigation measures are insufficient to mitigate a significant impact.

Process Time: Variable[16]

Legal Authority: State Environmental Policy Act (Wash. Rev. Code § 43.21C).

5.7 Aquatic Use Authorization

DNR authorization is required for new projects on state-owned aquatic lands. To ensure that a project is appropriate, whether the land is available, and how to best build it to avoid or lessen impacts to habitat, applicants are encouraged to contact DNR early. DNR land managers work closely with applicants to determine what will be required in a use authorization and to help identify permits that might be required by regulatory agencies.

Lead Agency: An applicant first completes a JARPA and submits it to DNR.[17] Any other authorizations that the project requires must be also submitted with the application.[18]

Review Process: Applicants contact DNR's Aquatic Resources program. DNR will determine whether the project is on state-owned aquatic lands. DNR land managers work with applicants to conduct a preliminary application review. DNR may also contact regulatory agencies to further identify necessary permits. A project will undergo more thorough review to identify potential impacts to the aquatic environment.

Land managers work with applicants as permits are processed to negotiate authorization terms and conditions, including rent, survey requirements, insurance, performance security and other site-specific requirements. Because DNR is a landlord on behalf of Washington's citizens, all land use authorizations are reviewed by a state attorney for legality and compliance. Following that, DNR may offer the lease to the applicant for final authorization.

Process Time: The process time is generally 6-12 months. However, it is important to note that this authorization is not granted until all other approvals are completed.

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[15] As noted above, the NEPA documentation may satisfy the requirements of SEPA.
[16] If a DNS can be issued, then process time may only take three to six months; however, if an EIS is required, then process time may take up to 24 months or more.
[17] Submittal of the application triggers DNR's formal involvement; however, DNR staff attempt to become involved at the earliest point possible (depending on agency staff workload).
[18] An Aquatic Lease will not be issued until after all other authorizations (local, state, and federal) are issued. Therefore, an Aquatic Lease is one of the last authorizations a developer will obtain prior to receiving a FERC license.

Legal Authority: Aquatic Land Use Authorization (Wash. Rev. Code § 332-30-122); Aquatic Lands Management Guidelines (Wash. Rev. Code § 79.105.030).

5.8 Hydraulic Project Approval

Any form of construction or other work that uses, diverts, obstructs, or changes the natural flow or bed of any fresh water or saltwater of the state requires a permit called a HPA from the Washington Department of Fish and Wildlife. The purpose of the HPA is to protect fish life and their habitat.

Lead Agency: Washington Department of Fish and Wildlife.

Review Process: WDFW offers an online permit application system called the Aquatic Protection Permitting System that can be accessed at: https://wdfw.wa.gov/licenses/environmental/hpa. WDFW will also accept a JARPA in lieu of the online application. A complete application package for an HPA must include a completed application, general plans for the overall project, completed plans and specifications of the proposed work within the mean - high-water line in salt waters or within the ordinary high-water line in fresh waters of the state, and complete plans and specifications for the proper protection of fish life. The applicant must also provide notice of compliance with any applicable requirements of the SEPA.

Environmental specialists will review the application to make sure it contains the basic information needed to process it. If the application is missing basic information, WDFW will request additional information from the applicant. If the application is complete, WDFW will assign the application to a Habitat Biologist for processing. The biologist:

- Will work with the applicant to help achieve the project objective while protecting fish, shellfish, and their habitat. The biologist may request additional information or revisions to construction drawings to ensure a project protects fish resources.
- Will determine the most appropriate times for the applicant to work in or near the water. Work times protect fish life during vulnerable life history stage such as, spawning, incubation, and juvenile migration.
- May visit the project site and try to meet with the applicant to review fish habitat needs and how the project may affect fish or their habitat.

If the project cannot be accomplished without significant adverse impacts on fish, shellfish, or their habitat, the biologist may deny the application.

Process Time: Permit processing can take up to 45 days following receipt of a complete application package.

Legal Authority: Construction Projects in State Waters (Wash. Rev. Code § 77.55).

5.9 Shoreline Permits

Depending on the specific location, size, and scale of a proposed hydrokinetic project, one of three types of shoreline authorizations will generally be required: Variance Permit; Conditional Use Permit (CUP); or Shoreline Substantial Development Permit (SSDP). Shoreline permits may be applied for with the JARPA. The lead agency, process time, and legal authority are the same for each type of shoreline permit.

Lead Agency: The local government (town, city, county) where the proposed project will be implemented is the lead agency for shoreline permits.

Process Time: The local permit time frame is determined by local government, with longer processing time needed for a Variance Permit or CUP. Ecology's decision will be issued within 30 calendar days of receiving a complete permit package from the local government.

Legal Authority: Wash. Rev. Code, Section 173-27; Wash. Rev. Code, Section 90.58.

5.9.1 Shoreline Variance Permit

Each local government has its own Shoreline Master Program which sets development standards such as project dimensions, heights, setbacks, and densities. If a proposed project does not comply with the standards specified in the local government's Shoreline Master Program, then a variance may be requested.

Shoreline Variance permits are written permits issued by local governments and sent to Ecology for approval or disapproval. Ecology may add its own conditions to a variance during its review process. Additionally, Ecology may require compliance with SEPA the shoreline variance is issued.

5.9.2 Shoreline Conditional Use Permit

Each local government defines "conditional uses" (i.e., uses that are not preferred but may be permitted when specified conditions are met) in its Shoreline Master Program. If a proposed project involves activities that are specified as conditional uses in the local government's Shoreline Master Program, then the project proponent may apply for a shoreline CUP.

CUPs are written permits issued by local governments and sent to Ecology for approval or disapproval. Ecology may add its own conditions during its review process. Additionally, Ecology may require compliance with SEPA before a CUP is issued.

5.9.3 Shoreline Substantial Development Permit

A SSDP is a written permit issued by local governments for development on the shoreline. An applicant should ask the local government to determine if a permit or exemption is required because many types of development are exempt from this permit requirement. If a proposed project involves activities that are not specifically exempt from this permit and/or the uses exceed $6,416 fair market value, then a SSDP will likely be needed.

After the local process is complete, the permits are filed with Ecology, but Ecology does not have authority to approve or deny these permits. Within seven calendar days of receiving the local government's final SSDP decision or the final SSDP, Ecology informs local governments and permit applicants of the SSDP filing dates.

5.10 Site Certification Agreement

EFSEC project siting review is the state licensing process for the siting, construction, and operation of an energy project, as defined in RCW 80.50.020. A preliminary study may be done prior to starting the siting review certification process to assess whether to proceed with an application. EFSEC is responsible for evaluating applications to ensure that all environmental and socioeconomic impacts are considered before a site is approved. After evaluating an application, EFSEC submits a recommendation to the Governor. If EFSEC determines that constructing and operating the facility will produce minimal adverse effects on the environment, ecology of the land and wildlife, and ecology of the state waters and aquatic life, and meets its construction and operation standards, then it recommends that a Site Certification Agreement (SCA) be approved and signed by the Governor. The SCA lists the conditions the applicant must meet during construction and while operating the facility.

RCW 80.50 directs EFSEC to regulate the construction and operation of the facility. EFSEC is the state's regulatory agency that determines compliance with state laws and the terms set in the SCA. (EFSEC may contract with other state agencies for on-site inspections). EFSEC has the regulatory authority to enforce compliance with state laws and the conditions in the SCA through fines or by ceasing construction or operation of the project. EFSEC continues this oversight responsibility through restoration of the site after the project is terminated.

Lead Agency: Energy Facility Site Evaluation Council.

Process Time: 1 year or such later time as agreed to by EFSEC and the project applicant.

Legal Authority: Chapter 80.50 RCW Energy Facilities—Site Locations.

5.11 Washington Agency Contact Information

Agency	Web Address	Mailing Address	City	State	Zip	Phone
Department of Ecology	www.ecology.wa.gov	P.O. Box 47600	Olympia	WA	98504-7600	360.407.6000
Department of Natural Resources	www.dnr.wa.gov	1111 Washington St. SE P.O. Box 47000	Olympia	WA	98504-7000	360.902.1000
Energy Facility Site Evaluation Council	www.efsec.wa.gov	1300 S. Evergreen Park Dr. SW P.O. Box 43172	Olympia	WA	98504-7250	360.664.1345
Governor's Office for Regulatory Innovation and Assistance	www.oria.wa.gov	P.O. Box 43125	Olympia	WA	98504-3125	800.917.0043
Department of Fish and Wildlife	www.wdfw.wa.gov	1111 Washington St. SE P.O. Box 43200	Olympia	WA	98504-3200	360.902.2200

6 Oregon

6.1 Introduction to Oregon Agencies and Authorizations

Oregon adopted its foundational Territorial Sea Plan (TSP)[1] in 1994 as a detailed, management-oriented guide for evaluating uses of the state's territorial waters. Part Four of the TSP addresses linear uses of the seafloor such as cables and pipelines. For projects located on the Outer Continental Shelf (OCS), Part Four outlines practices that govern easements for an electrical export cable connecting a device array to shore crossing the state seafloor. Part Four also addresses cable easements for projects sited within the Territorial Sea or the OCS. The Land Conservation and Development Commission adopted a new Part Five of the TSP in 2013. This part of the Plan summarizes TSP policies and practices that apply to state and federal agency authorizations for the development of renewable energy facilities and other related structures, equipment, and facilities in the state's territorial waters, within three nautical miles of shore.[2] The principal authorizations currently required for constructing and operating a hydrokinetic facility in Oregon are listed in the table below, and each is explained in detail later in the chapter.

The State of Oregon and FERC signed an MOU in 2008 to coordinate procedures and schedules for review of wave energy projects in state waters off the coast of Oregon. Among other things, FERC agreed not to issue preliminary permits until the state TSP was amended to reflect marine energy sites and agreed to treat the TSP as a comprehensive plan under FPA 10(a).[3]

The Oregon Department of Environmental Quality (DEQ) issues Clean Water Act (CWA) Section 401 Water Quality Certifications (WQCs). The Oregon Department of State Lands (DSL) authorizes several aspects of MHK projects. Initially, project developers submit an application to DSL for either a Temporary Use Permit or an Ocean Energy Facility Lease, depending on whether the site will be designated for commercial generation or for research and demonstration. DSL also reviews applications for Removal-Fill Permits. For hydrokinetic projects, Removal-Fill Permits are required for any seafloor disturbance resulting from the installation of any seafloor structure including pods, hubs, substations, anchors, and transmission cables attaching onshore and offshore project components. DSL is the primary permitting authority implementing Part Five of the TSP. Final rules went into effect in 2018.[4]

In 1967, the Oregon Beach Bill guaranteed public access to the state's beaches and established a state easement on all beaches between the extreme low water mark and the vegetation line. As the state agency with jurisdiction over Oregon's beaches, the Oregon Parks and Recreation Department (OPRD) issues Ocean Shores Alteration Permits for the construction or placement of any structure, appurtenance, or alteration on (and under) the ocean shore. Finally, the Department of Land Conservation and Development (DLCD) is the primary agency for coordination of ocean resources and planning activities related to the Oregon Coastal Management Program (OCMP). As such, DLCD coordinates a project's Coastal Zone Management Act (CZMA) federal consistency determination.

6.2 List of Oregon Acronyms

CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DEQ	Department of Environmental Quality
DLCD	Department of Land Conservation and Development
DOGAMI	Department of Geology and Mineral Industries
DSL	Department of State Lands
JART	Joint Agency Review Team
OAR	Oregon Administrative Rules
OCMP	Oregon Coastal Management Program
OCS	Outer Continental Shelf

[1] https://www.oregonocean.info/index.php/tsp-home/6-planning-in-the-ocean#:~:text=The%20Oregon%20Territorial%20Sea%20Plan,to%20three%20nautical%20miles%20offshore.
[2] Oregon Administrative Rule (OAR) 660-036-0005.
[3] https://www.hydroreview.com/2008/03/28/us-oregon-to-coordinate-review-of-wave-energy-projects/#gref.
[4] Oregon Administrative Rule (OAR) 141-140-0010 to -0130.

ODFW	Oregon Department of Fish and Wildlife
ODOJ	Oregon Department of Justice
OPRD	Oregon Parks and Recreation Department
ORS	Oregon Revised Statutes
SHPO	State Historic Preservation Office
TSP	Territorial Sea Plan
WQC	Water Quality Certification

6.3 Summary Table of Oregon Authorizations

Permit/Approval	Primary Legal Authority	Lead Agency	Anticipated Process Time
Ocean Renewable Energy Facility Lease	OAR 141-140; ORS 274.870-879	Department of State Lands	At least 6 months
Temporary Use Authorization	OAR 141-140; ORS 274.870-879	Department of State Lands	At least 6 months
Removal-Fill Permit	ORS § 196.795-990	Department of State Lands	90-120 days
Ocean Shores Alteration Permit	ORS § 390; OAR 736-020	Oregon Parks and Recreation Department	At least 60, up to 105 days
CZMA Federal Consistency Certification	§ 307 CZMA; Ocean Resources Management Act	Department of Land Conservation and Development	45-90 days, or up to 6 months
§ 401 Water Quality Certification	Clean Water Act § 401	Department of Environmental Quality	Up to 1 year

6.4 Ocean Renewable Energy Facility Lease

An Ocean Renewable Energy Facility Lease is a written authorization issued by DSL to a person to occupy an authorized area for one or more ocean renewable energy facilities comprising a commercial operation. Unless otherwise approved by the State Land Board, the term of an Ocean Renewable Energy Facility Lease shall not exceed 30 years.[5]

Lead Agency: DSL issues Ocean Energy Facility Leases. The Oregon Department of Justice (ODOJ) and Oregon Department of Fish and Wildlife (ODFW) also participate in the leasing process.

Review Process: Before submitting an application, applicants must meet with DSL staff, affected ocean users, and other government agencies having jurisdiction in the territorial sea to discuss possible use conflicts, impacts on habitat, and other issues related to the proposed project.

When submitting an application, the applicant must include an analysis of, and any relevant supporting documents or studies that demonstrate, how the use requested for authorization complies with the requirements of Statewide Planning Goal 19, the Oregon Ocean Resources management plan, and the TSP.

Once submitted, DSL convenes a Joint Agency Review Team (JART) to review the application. The JART is composed of state and federal agencies and:

- Local jurisdictions including representatives from affected cities, counties, and their affected communities, and affected port districts;

[5] OAR 141-140-0080(4).

- Statewide and local organizations and advisory committees, as invited, to participate in the JART application of specific standards, including but not limited to those addressing areas important to fisheries, ecological resources, recreation and visual impacts; and
- Federally recognized Coastal Tribes in Oregon.

In 2015, the state legislature independently directed DSL to adopt rules to assure financial capability of an ocean energy project to recover deployed assets.[6]

Legal Authority: Rules Governing the Placement of Ocean Energy Conversion Devices On, In or Over State-Owned Land in the Territorial Sea (OAR 141-140)[7] and Ocean Renewable Energy Facility Siting (ORS 274.870-879).

Process Time: Applications must be submitted after required meetings with stakeholders and at least 180 calendar days prior to installation of equipment or devices.

6.5 Temporary Use Authorization

A Temporary Use Authorization is a written authorization issued by DSL to a person to use an authorized area for an ocean renewable energy facility comprising a research project or demonstration project.

Lead Agency: DSL is responsible for reviewing applications and issuing Temporary Use Authorizations. Other state agencies likely to be involved in the review process include ODOJ, ODFW, and the State Historic Preservation Office (SHPO), and there will likely be a JART review of the application.

The holder of a Temporary Use Authorization is given a first right to apply for an Ocean Energy Facility Lease for the area specified in the Temporary Use Authorization. If the first right to apply is not exercised within 60 calendar days of the expiration date of the Temporary Use Authorization, then it will expire. Unless otherwise approved by the DSL Director, the term of a Temporary Use Authorization shall not be more than five calendar years.[8]

Process Time: Applications must be submitted at least 180 calendar days prior to installation of equipment or devices.

Legal Authority: OAR 141-140[9] and Ocean Renewable Energy Facility Siting (ORS 274.870-879).

6.6 Removal-Fill Permit

Oregon's Removal-Fill Law requires anyone who proposes to remove, alter, or fill materials in state waters to obtain a permit from DSL. A Removal-Fill Permit allows short-term use, usually less than one year, of a specific area of publicly owned submerged and/or submersible land for a specific use under specific terms and conditions. For hydrokinetic projects, this permit would likely be required to install seafloor structures including anchors and cables associated with any ocean energy project. Projects that require a DSL Removal-Fill Permit and a federal permit from COE may use a joint permit application form.

Lead Agency: DSL is responsible for reviewing applications and granting Removal-Fill permits.

Process Time: 90-120 days from receipt of complete application.

Legal Authority: Oregon Removal-Fill Law (ORS 196.795-990).

6.7 Ocean Shores Alteration Permit

An Ocean Shores Alteration Permit authorizes a structure, appurtenance, or other addition, modification or alteration (including habitat restoration) to be constructed, placed, or made on the ocean shore. An Ocean Shores Alteration Permit is also required for a pipeline, cable line, or conduit placed on or under the ocean shore; or for a permit for the removal of products from the ocean shore.

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[6] OAR 141-140-0095.
[7] Governs placement of ocean energy monitoring equipment, conversion devices, and associated equipment.
[8] OAR 141-140-0080(3).
[9] https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=368.

Lead Agency: OPRD issues this permit. Affected federal, state and local government agencies (depending on the location, size and scope of the project) may also take part, including COE, DSL, the Department of Geology and Mineral Industries (DOGAMI), DLCD, ODFW, SHPO, and Indian Tribes. There is also a public comment period and the option for a public hearing.

Process Time: At least 60 days, but up to 105 days if a public hearing is required.[10]

Legal Authority: ORS Section 390; OAR 736-020.

6.8 Coastal Zone Management Act Federal Consistency Decision

In the CZMA, Congress created a federal-state partnership for management of coastal resources. CZMA Section 307 requires that federally licensed or permitted activities[11] be consistent with state coastal management policies (e.g., land use planning statutes, marine spatial planning, and water quality standards). The CZMA recognizes the importance of energy facilities and includes language to ensure states have a rational process for siting these facilities in their coastal zones, which considers the national interest in energy production as well as the national interest in protecting coastal resources. Federal activities affecting coastal resources in Oregon must be consistent with the OCMP and any enforceable policies underlying the programs that have been incorporated into the OCMP (e.g., Removal-Fill Law, Oregon Beach Bill). The OCMP includes a National Oceanic and Atmospheric Administration-approved Geographic Location Description comprising the area seaward to the 500-fathom contour, within which any marine energy development automatically enters the federal consistency review process with DLCD.

Lead Agency: DLCD is designated the primary agency for coordination of ocean resources, planning activities, and the designated agency for purposes of carrying out and responding to the CZMA. The Oregon program is networked and thus coordinates with other state resource agencies in determining consistency with the enforceable policies of the state, such as ODFW, DSL, DEQ, and OPRD.

Review Process: Oregon state law establishes the inter-agency coordination process and the decision implementation framework that applies to the siting and regulation of wave energy facilities in state waters. A consistency application requires both a summary of the effects of the project on coastal uses and resources and a set of findings demonstrating that the proposed activity will be consistent with state enforceable policies. The applicant's consistency application should include all relevant environmental and biological documents.[12] The federal consistency review process generally consists of four phases:

i. Applicant prepares consistency application along with necessary data and information;[13]
ii. DLCD reviews the application for completeness;
iii. DLCD conducts the consistency review;
iv. DLCD issues a concurrence, concurrence with conditions, or an objection.[14]

Instead of issuing an objection or a concurrence, DLCD may issue a conditional concurrence. If the conditions of the concurrence are acceptable to the federal action agency, they will be incorporated into the federal permit or license. For example, FERC applicants must provide a description of those conditions and assess the conditions in the appropriate section of the EA/EIS that is prepared and submitted with the license application. If DLCD's conditions are not acceptable to the federal agency, a conditional concurrence has the same effect as an objection. When a state issues an objection, the federal license or permit cannot be issued. A project applicant may file an appeal with the Secretary of Commerce showing grounds for overriding the state's objection.

[10] OPRD must act on a permit application within 60 days of receipt unless a hearing is held, in which case it must act within 45 days after the hearing. The applicant may appeal ORPD's decision to the Director within 30 days, who must schedule a hearing within 30 days, and who then must issue a final decision within 45 days after the hearing.
[11] A federal license or permit includes any authorization, certification, approval, or other form of permission that any federal agency is empowered to issue to an applicant. 15 CFR § 930.51.
[12] Therefore, the review process generally does not begin until NEPA and ESA documents (DEIS, BA) are available.
[13] All "necessary data and information" includes copies of all federal, state, and local license and permits applications.
[14] For a private project applicant, concurrence is presumed after 6 months if DLCD does not sign a stay agreement with the applicant. Federal agencies get a DLCD decision within 60 days, with one 15-day extension allowed to DLCD.

Process Time: Reviews take 60-75 days for federal agency applicants and 180 days for private applicants.[15]

Legal Authority: Coastal Zone Management Act, (16 USC § 1451, et seq.); Ocean Resources Management Act (ORS § 196.405-515); OAR 660-015-0010(4).[16]

6.9 Clean Water Act Section 401 Water Quality Certification

The purpose of CWA Section 401 is for states to ensure that no federal license or permit authorizes an activity that would violate the state's water quality standards or become a future source of pollution. A Section 401 WQC covers construction, operation, maintenance, and decommissioning of a proposed project, and conditions of the WQC become conditions of the federal license or permit. All aspects of the project, including energy production devices and any cables in, on, or under state waters (including wetlands) are considered in the review. Applicants for federal authorization (e.g., FERC license, COE permits) to construct or operate a facility that may result in discharge to navigable waters of the US must provide the federal action agency with a certification from the state demonstrating that the activity is consistent with federal water quality standards and water quality requirements set forth by the State of Oregon.

Lead Agency: In Oregon, a WQC is issued by DEQ. Other agencies may participate in the WQC review process. Applications for certification must be filed with DEQ. It is highly recommended that applicants include DEQ in pre-application meetings, along with the COE and DSL.

Review Process: DEQ assesses a broad range of impacts, including pollution, temperature, turbidity, and flow to determine if a proposed activity will have negative impacts on water quality. Depending on how COE processes an application (individual permit or nationwide permit), public notice may take place when DEQ is ready to issue or deny the certification, or it may take place as set forth in OAR 340-048-0032 or OAR 340-048-0037. If DEQ grants WQC, it is in effect saying that the proposed activity will comply with state water quality standards. Generally, DEQ "conditionally grants" certification by placing limitations or conditions on the certification to ensure compliance with the water quality requirements.

DEQ may deny certification if the applicant does not demonstrate that the project will comply with applicable provisions of the CWA and with other water quality requirements set forth by the state. If certification is denied, the federal licensing or permitting agency is prohibited from issuing a permit or license.

Process Time: Based on the *Hoopa* decision, a WQC determination must be made within one year.[17]

Legal Authority: Clean Water Act Section 401 (33 USC § 1341); OAR 340-048.[18]

[15] Reviews will not commence until all applications for other federal, state and local permits have been submitted and are actively being processed.
[16] https://www.oregon.gov/lcd/OCMP/Documents/ors_196-405.pdf.
[17] https://www.environmentallawandpolicy.com/2019/01/d-c-circuit-strikes-withdraw-resubmit-practice-state-quality-certifications/.
[18] https://secure.sos.state.or.us/oard/processLogin.action.

6.10 Oregon Agency Contact Information

Agency	Web Address	Mailing Address	City	State	Zip	Phone
Department of Geology and Mineral Industries	www.oregongeology.org	800 NE Oregon St., Suite 965	Portland	OR	97232	971.673.1555
Department of State Lands	https://www.oregon.gov/DSL/Pages/index.aspx	775 Summer St. NE, Suite 100	Salem	OR	97301-1279	503.986.5200
Department of Land Conservation and Development	https://www.oregon.gov/lcd/Pages/index.aspx	635 Capitol St. NE, Suite 150	Salem	OR	97301-2540	503.373.0050
Oregon Department of Environmental Quality	https://www.oregon.gov/deq/Pages/index.aspx	700 NE Multnomah St., Suite 600	Portland	OR	97232	503.229.5696
Oregon Department of Fish and Wildlife	https://www.dfw.state.or.us/MRP/ocean_energy/index.asp	4034 Fairview Industrial Drive SE	Salem	OR	97302	503.947.6000
Oregon Parks and Recreation Department	www.oregon.gov/OPRD	725 Summer St. NE, Suite C	Salem	OR	97301	503.986.0707
Pacific Fisheries Management Council	www.pcouncil.org	7700 NE Ambassador Place, Suite 101	Portland	OR	97220-1384	503.820.2280
State Historic Preservation Office	https://www.oregon.gov/oprd/OH/pages/default.aspx	725 Summer St. NE, Suite C	Salem	OR	97301	503.986.0690
US Fish and Wildlife Service	www.fws.gov	Eastside Federal Complex, 911 NE 11th Ave.	Portland	OR	97232	503.231.6118

7 California

7.1 Introduction to California Agencies and Authorizations

The California Public Utilities Commission (CPUC) regulates services and utilities, protects consumers, safeguards the environment, and assures Californians' access to safe and reliable utility infrastructure and services. Regarding energy, the CPUC regulates investor-owned electric and natural gas utilities operating in California.

The California Energy Commission (CEC) is the state's primary energy policy and planning agency. The CEC has seven core responsibilities: (1) advancing state energy policy; (2) achieving energy efficiency; (3) investing in energy innovation; (4) developing renewable energy; (5) transforming transportation; (6) overseeing energy infrastructure; and (7) preparing for energy emergencies.

The California Coastal Commission (CCC or Coastal Commission), in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone.[1] Development activities, which are broadly defined by the Coastal Act to include (among others) construction of buildings, divisions of land, and activities that change the intensity of land use or public access to coastal waters, generally require a coastal permit from either the Coastal Commission or the local government. CCC is responsible for issuing coastal development permits and federal Coastal Zone Management Act (CZMA) consistency determinations.

In California, wetlands, riparian areas, and headwaters have high resource value, are vulnerable to filling, and are not systematically protected by other programs. State and Regional Water Resources Control Boards have special responsibility for protecting these natural resources under California's Dredge/Fill and Wetlands Program. This program protects special-status species and regulates impacts from waterbody modifications, and it is through this program that the Water Resources Control Board (State Board) implements Clean Water Act (CWA) Water Quality Certification (WQC). The State Board is considering amendments to both the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) and the forthcoming Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California to include the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State.[2]

The State Lands Commission (SLC) serves the people of California by providing stewardship of the lands, waterways, and resources entrusted to its care through economic development, protection, preservation, and restoration. SLC is responsible for authorizing the use of the state's sovereign submerged lands by issuing State Tidelands Leases, and it is also responsible for ensuring that proposed projects comply with the California Environmental Quality Act (CEQA). SLC also issues permits for low energy geophysical surveys in state waters.

Within the California Department of Fish and Wildlife (CDFW), the Habitat Conservation Planning Branch provides for the conservation, protection, restoration, and management of fish, wildlife, and native plants and preserves and restores the ecosystems (including ecological processes) on which they depend for use and enjoyment by the public. As part of its Habitat Conservation Programs, the California Endangered Species Act (CESA) allows CDFW to authorize project proponents to take state- listed threatened, endangered, or candidate species if certain conditions are met. The permitting program administers the incidental take provisions of CESA to ensure regulatory compliance and statewide consistency.

In 2010, California signed a Memorandum of Understanding with Federal Energy Regulatory Commission (FERC) in which the parties agreed to participate fully and maintain communication to make the regulatory process efficient and timely. Specifically, they agree to coordinate efforts to the extent possible for both National Environmental Policy Act (NEPA) and CEQA requirements. Further, no FERC license can be issued that will affect land, water, or natural resource without concurrence from the CCC or the San Francisco Bay Conservation and Development Commission.

[1] In California, the coastal zone extends seaward to the state's outer limit of jurisdiction (approximately three nautical miles) and inland to the point designated on the maps adopted by California's legislature. In developed urban areas, the coastal zone generally extends inland much less than 1000 yards. However, in certain habitat, estuarine, and recreational areas, the coastal zone can extend as far as five miles inland.

[2] https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/wrapp/2nd_revised_notice_dredge.pdf.

7.2 List of California Acronyms

BO	biological opinion
CCA	California Coastal Act
CCC	California Coastal Commission
CCMP	California Coastal Management Program
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
COE	US Army Corps of Engineers
CPUC	California Public Utilities Commission
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
EIR	Environmental Impact Report
EIS	environmental impact statement
ESA	Endangered Species Act
FERC	Federal Energy Regulatory Commission
FONSI	Finding of No Significant Impact
LCP	Local Coastal Programs
NEPA	National Environmental Policy Act
Regional Board	Regional Water Resources Control Board
SLC	State Lands Commission
State Board	Water Resources Control Board
WQC	Water Quality Certification

7.3 Summary Table of California Authorizations

Authorization/Review	Primary Legal Authority	Lead Agency	Process Time
§ 401 Water Quality Certification	Clean Water Act § 401; Cal. Code Regs. Title 23, § 3.28	State or Regional Water Resources Control Board	Up to 1 year
CZMA Federal Consistency Determination	Coastal Zone Management Act § 307	California Coastal Commission or San Francisco Bay Conservation and Development Commission	Up to 6 months from receipt of complete application
Coastal Development Permit	California Coastal Act, Pub. Res. Code § 30000 et seq.	California Coastal Commission and/or Local Government	Varies
CEQA Declaration	California Environmental Quality Act, Pub. Res. Code § 21000 et seq.	State Lands Commission (or local agency if State Lands Commission cedes control of State Tidelands to local jurisdiction)	Up to 1 year for an Environmental Impact Report (EIR); up to 105 days for Negative Declaration[3]
State Tidelands Lease	California Public Resources Code	State Lands Commission	Varies

[3] At the request of an applicant, the Lead Agency may waive the one-year time limit for completing and certifying a final EIR or the 105-day period for completing a Negative Declaration if the project is subject to both NEPA and CEQA, *and* the preparation of the combined documents (i.e., EIR-EIS or Negative Declaration-FONSI) requires additional time, *and* the time period to prepare the combined documents is less than the time required to prepare those documents separately.

Authorization/Review	Primary Legal Authority	Lead Agency	Process Time
California Endangered Species Consultation	California Endangered Species Act	Department of Fish and Game, Habitat Conservation Planning Branch	Varies
Lake and Streambed Alteration Agreement	California Fish and Game Code § 1602	California Department of Fish and Wildlife	Varies
Scientific Collecting Permit	California Fish and Game Code § 1002, 1002.5, and 1003	California Department of Fish and Wildlife	Varies

7.4 Clean Water Act Section 401 Water Quality Certification

The purpose of CWA Section 401 is for states to ensure that no federal license or permit authorizes an activity that would violate the state's water quality standards or become a future source of pollution. A Section 401 WQC covers construction, operation, maintenance, and decommissioning of a proposed project, and conditions of the WQC become conditions of the federal license or permit. All aspects of the project, including energy production devices and any cables in, on, or under state waters (including wetlands) are considered in the review.

Lead Agency: In California, WQC applications for projects requiring a FERC license are reviewed by the State Board, so WQC applications for commercial-scale hydrokinetic projects would likely be reviewed by the State Board as well.[4]

If a project does not require a FERC license or a state water rights license, and none of the project components cross regional boundaries, then the WQC application is reviewed by the Regional Water Resources Control Board (Regional Board).

Review Process: When an application for certification is received and deemed complete[5] the State or Regional Board commences its review. In its application, a project proponent must identify all the local, state and federal authorizations required for the project, and must provide copies of either the actual license or permits, or applications for the authorizations.

State law requires that a final environmental document developed under CEQA be reviewed before a WQC may be issued. If the project is exempt from CEQA, the application should explain why and provide appropriate documentation. If another local or state agency must satisfy CEQA requirements, applicants are encouraged to ensure that environmental documentation is finalized before the WQC application is submitted.[6]

An application may be submitted before a draft or final CEQA document is available, in which case the draft and final documents must be submitted as soon as possible. If the CEQA document will not be finalized for some time, the State or Regional Board may deny the project without prejudice.

To expedite review, applicants should consult with the appropriate State or Regional Board in the early stages of project planning. When applying, applicants are urged to supply all information and the required deposit. The lack of necessary information is the biggest impediment to timely issuance of a WQC. After reviewing the application, all relevant data, and any recommendations from interested stakeholders, the Board will issue its decision.

Certification. A WQC is issued if the proposed project would comply with water quality standards. Conditions may be attached to a WQC in order to mitigate potential impacts to beneficial uses and other standards. Under federal law (33 USC § 1341(d)), such conditions must be included in the federal license or permit.

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[4] WQC applications for multi-regional projects (e.g., pipelines or roads crossing regional boundaries) and projects seeking a State water rights license are also reviewed by the State Board.
http://www.waterboards.ca.gov/water_issues/programs/cwa401/index.shtml.

[5] A complete WQC application must include an application fee, deposit, and all information required by state law. Upon receipt, the certifying Board will review the application for completeness. If the application is incomplete, the applicant shall be notified in writing of necessary additional information or action no later than 30 days after receipt of the application.

[6] A city, county, or other state agency usually prepares the CEQA document, but if there is no CEQA lead agency, the State or Regional Board may do so.

Denial. The state will deny a WQC application if the project would not comply with state water quality standards or with procedural requirements. If a WQC application is denied, the federal permit or license cannot be issued.[7]

If a WQC application is denied for failure to meet procedural requirements (e.g., CEQA document is not finalized) the denial is "without prejudice." Once the procedural deficiency is addressed, the WQC application may be reconsidered. Alternatively, if an applicant realizes that a procedural deficiency exists, they can avoid a denial by withdrawing (in writing) the request for WQC.

Process Time: Based on the *Hoopa* decision, a WQC determination must be made within one year.[8]

Legal Authority: Clean Water Act Section 401 (33 USC § 1341); CAL. CODE REGS. Title. 23, sections 3830-3869.

7.5 Coastal Zone Management Act Federal Consistency Determination

In the CZMA, Congress created a federal-state partnership for management of coastal resources. Section 307 of the CZMA requires that federally licensed or permitted activities[9] be consistent with state coastal management policies (e.g., land use planning statutes, marine spatial planning, and water quality standards).[10] A *consistency determination* is the process used to implement this requirement for federal permits and licenses. Hydrokinetic projects will likely require a US Army Corps of Engineers, Section 404 Permit, a Rivers and Harbors Act Section 10 Permit, and/or a FERC license, all of which require a consistency review.

Lead Agency: For the California coast, except San Francisco Bay,[11] the state agency responsible for implementing the CZMA is CCC. The lead agency for CZMA in the San Francisco Bay is the San Francisco Bay Conservation and Development Commission. CCC, in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone. All consistency documents are reviewed for consistency with the California Coastal Management Program (CCMP) and the California Coastal Act (CCA), and various federal and state agencies may assist the action agency in the application review process.

The applicant must provide a certification of consistency to the federal action agency[12] stating that the proposed activity complies with the CCMP and will be conducted in a manner consistent with the CCMP. The CCC staff is available to assist the applicant with its consistency certification. A consistency determination refers to federal agency activities and development projects, and a consistency certification refers to federal permits and licenses, and/or federal support (i.e., funding) to state and local agencies.

Review Process: First, an applicant must submit its consistency certification to CCC along with the necessary data and information.[13] CCC then reviews the certification for completeness. Upon determining that the consistency certification is complete, the review period begins.[14]

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[7] Applicants may petition the State Board to reconsider an action (i.e., issuing a certification or denial). A petition for reconsideration must be submitted in writing and received by the State Board within 30 days of the action. (CCR Title 23, Division 3, Chapter 28 § 3867) For detailed information, refer to the State Water Control Board.

[8] https://www.environmentallawandpolicy.com/2019/01/d-c-circuit-strikes-withdraw-resubmit-practice-state-quality-certifications/.

[9] A federal license or permit includes any authorization, certification, approval, or other form of permission that any federal agency is empowered to issue to an applicant. 15 CFR § 930.51.

[10] The federal consistency review requirements and procedures are detailed in 15 CFR § 930.

[11] In San Francisco Bay, the administering agency is the San Francisco Bay Conservation and Development Commission.

[12] The federal action agency is the agency with the authority to issue a license or permit for the proposed action.

[13] Supporting information includes a copy of the federal permit application, a detailed description of the proposal, its associated facilities, its coastal effects, comprehensive data and information sufficient to support the applicant's consistency certification, and an evaluation of the consistency of the project and its associated facilities with the enforceable policies of the CCMP.

[14] If CCC does not receive a complete consistency certification, then within 30 days of its receipt of the incomplete information it will notify the applicant and the federal permitting agency that its consistency certification is incomplete and that the review period has not begun. CCC's notice will identify the missing information.

After reviewing the applicant's consistency certification, CCC staff prepare a report and recommendation for CCC action.[15] At this point, CCC issues a public notice. After the public notice, during a public hearing, CCC decides whether to concur with or to object to the consistency certification.

CCC can conditionally concur with a consistency certification. However, if the federal-permit applicant does not agree with the conditions and does not modify the project to incorporate the conditions, then CCC's conditional concurrence will be treated as an objection.

If CCC objects to the applicant's consistency certification because it is inconsistent with the CCMP, it may describe alternative measures (if they exist) that would allow CCC to concur.

If the CCC objection is based on a finding that the applicant has not supplied adequate information to assess the proposed activity's consistency with the CCMP, then CCC will identify the additional information and the reason it is necessary.

If CCC objects to the consistency certification, then the federal action agency cannot issue a permit or license (for example, a Bureau of Ocean Energy Management lease) for the proposed project. The applicant has 30 days from receipt of an objection letter to file an appeal to the Secretary of Commerce.[16]

Process Time: For federal licenses, permits, and other authorizations, the designated state agency has up to six months from receipt of a complete certification to concur with or object to a consistency certification. If CCC fails to act within six months after commencing its review, the federal permitting agency can conclusively presume the state's concurrence with the consistency certification.

Legal Authority: Coastal Zone Management Act (16 USC § 1451 et seq.); California Coastal Management Program;[17] California Coastal Act (PUB. RES. CODE §§ 30200-30265).

7.6 Coastal Development Permit

CCC, in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone. New development in the coastal zone that requires a permit from CCC, or the appropriate local government includes the placement of any solid material or structure, a change in land use density or intensity, a change in the intensity of water use or access to water, and removal of major vegetation.

Lead Agency: CCC issues permits for offshore activities and certain specified lands (e.g., tidelands and public trust lands). All new development proposed on tidelands, submerged lands, and other public trust lands must receive a permit from CCC.[18] In areas where the local government has a certified Local Coastal Program (LCP), onshore activities are permitted by the local government. Depending on project size and location, it is likely that hydrokinetic facilities would require a permit from CCC as well from the local government. Local decisions can be appealed to the CCC.

LCPs contain the ground rules for future development and protection of coastal resources in the 74 coastal cities and counties. LCPs specify appropriate location, type, and scale of new or changed uses of land and water. Each LCP includes a land use plan and measures to implement the plan (e.g., zoning ordinances). While each LCP reflects

[15] If CCC does not issue a decision within three months, it must notify the applicant and the federal agency of the status of the matter and the basis for further delay.
[16] If the Secretary determines that the proposed activity is consistent with the objectives and purposes of the CZMA, or that the activity is necessary in the interest of national security, then the Secretary may overturn the objection and the federal action agency may issue the permit or license for the proposed project.
[17] All consistency documents are reviewed for consistency with the CCMP. CCC's goal is to use the federal consistency process to provide open communication and coordination with federal agencies and applicants and provide the public with an opportunity to participate in the process. CCC believes that this process allows it to authorize federal activities in a manner that minimizes impacts to coastal resources and is consistent with the CCMP. http://www.coastal.ca.gov/fedcd/fedcndx.html.
[18] However, coastal development permits in the San Francisco Bay area are administered by the San Francisco Bay Conservation and Development Commission, not CCC.

unique characteristics of individual local coastal communities, regional and statewide interests and concerns must also be addressed to conform to CCA goals and policies.[19]

Review Process: To achieve a successful permitting process, applicants are encouraged to work closely with the local government and interested citizen groups as early as possible to address the LCP requirements that may apply to the project.

Requirements may include providing biological and other technical information that identifies sensitive resources and potential development impacts; avoiding or providing a buffer from sensitive resources, environmentally sensitive habitat areas, and riparian areas; and following specific design rules to address shoreline erosion and other hazards, water quality, scenic views and community character concerns. Sometimes public access or recreational opportunities in the project area will need to be addressed.

CCC staff is also generally available to answer questions concerning interpretation and application of an LCP in specific situations. To apply for a Coastal Development Permit (CDP), contact the appropriate CCC office for information on the application process.[20] Along with the application, additional materials are required. These materials may include a copy of any environmental documentation prepared for the project (Draft or Final Negative Declaration, Environmental Impact Report [EIR] or environmental impact statement [EIS]),[21] and verification of all other permits, permissions or approvals applied for or granted by local, state or federal agencies.

Once a CDP is approved, special conditions may need to be addressed before the permit can be "issued" or before construction can begin. Project proponents may need to prepare and record legal documents that reflect the conditions of the permit such as protections for habitat or open space areas. Or, revised project plans may be required that reflect changes in project design approved by CCC.

Process Time: Once the CCC staff deems an application complete, the proposal is presented to CCC within 49 days, unless the applicant waives this deadline.[22] The time required to receive authorization to proceed with construction depends on how quickly the permit conditions can be addressed. As with the processing of appeals, CCC staff does its best to review "condition compliance" materials submitted by applicants as soon as possible and generally in the order received.

Legal Authority: California Coastal Act (PUB. RES. CODE § 30000 et seq.).[23]

7.7 California Environmental Quality Act

The basic goal of CEQA is to develop and maintain a high-quality environment now and in the future. CEQA requires California's public agencies to identify the significant environmental effects of their actions[24] and either avoid or mitigate those effects where feasible.

The CEQA applies to projects that require approval by state and local government agencies and to projects proposed by a state or local government agency. Every development project that requires a discretionary governmental approval (e.g., Coastal Development Permit) will require at least some environmental review pursuant to the CEQA, unless an exemption applies.

Lead Agency: The lead agency for most private projects is the city or county where the project is located.[25] If a project requires approval by more than one public agency, then one agency (designated the lead agency) will be responsible for preparing the appropriate CEQA documentation. Depending on its finding of significance, the lead agency will prepare either a Negative Declaration or an EIR. Additionally, each responsible agency must consider

[19] Upon request or on its own motion, CCC may amend a certified LCP to accommodate energy and public works projects if the local government refuses to do so (PRC 30515).
[20] http://www.coastal.ca.gov/cdp/cdp-forms.html.
[21] For more information, see the next section in this chapter on CEQA.
[22] Review times vary for coastal permits from local jurisdictions.
[23] http://www.coastal.ca.gov/coastact.pdf.
[24] Public agencies' actions involve issuing permits for private projects, constructing public facilities, or adopting regulations, policies or plans.
[25] For projects carried out by nongovernmental entities, the lead agency is normally the agency with the general governmental powers, such as a city or county, rather than an agency with a single or limited purpose. If the project is to be carried out by a public agency, then that agency will be the lead agency.

the lead agency's CEQA documentation prior to issuing its approval for the project. The lead agency's determination is final and conclusive.[26]

CEQA is implemented according to the *CEQA Guidelines*, which are regulations that explain and interpret the law for both the public agencies responsible for administering CEQA and for the general public. These *Guidelines* provide objectives, criteria and procedures for the orderly evaluation of projects and the preparation of CEQA environmental review documents.

It is likely that hydrokinetic projects would be subject to both CEQA and NEPA requirements. As such, the responsible local and state agencies should cooperate with federal agencies to the fullest extent possible, including the use of joint planning processes, joint environmental research and studies, joint public hearings, and preparation of joint environmental documents.

Joint NEPA and CEQA Review Process: Situations where NEPA and CEQA documents may be prepared and used interchangeably include the following:

NEPA Document Is Ready Before CEQA Document: When a project requires compliance with both CEQA and NEPA, state or local agencies should use the NEPA documentation[27] if (1) the NEPA EIS or Finding of No Significant Impact (FONSI) will be prepared before a CEQA EIR or Negative Declaration would be completed and (2) the NEPA EIS or FONSI complies with the provisions of the CEQA Guidelines.

Preparation of Joint Documents: If NEPA documentation will not be prepared by the time the lead agency needs to consider CEQA documentation, then the lead agency should try to prepare a combined EIS-EIR or Negative Declaration-FONSI. The lead agency must involve the federal action agency in the preparation of the joint document so that the federal agency would not need to prepare a separate document for the same project.[28]

If a federal agency chooses not to cooperate in the preparation of a joint environmental document and would require separate NEPA compliance at a later time, then the lead CEQA agency should persist in its efforts to cooperate with the federal agency. If a local agency is the CEQA lead agency, it should involve a state agency in preparation of a Negative Determination or an EIR because NEPA expressly allows federal agencies to use environmental documents prepared by an agency with statewide jurisdiction. By doing this, there is a greater chance that the federal agency will later use the CEQA document for its NEPA review and the applicant will not have to pay for preparation of a second environmental review document.

CEQA Review Process: In cases where a NEPA review is not required, the CEQA review process proceeds as follows:

Pre-Application Consultation. Prior to filing a formal application, a potential applicant may request the lead agency to provide consultation for the applicant, lead agency, responsible agencies, and any interested parties to consider the project scope, potential alternatives, mitigation measures, and any potential significant impacts.

Preliminary Review. Upon receipt of an application, the lead agency is allowed 30 days to review the application for completeness. Once an application is deemed complete, the lead agency determines if the activity qualifies as a project subject to CEQA.[29] If the project is not subject to review under CEQA, then the agency may prepare a Notice of Exemption, which would be filed if and when a project is approved. If it is determined that the project is subject to CEQA, then formal environmental evaluation commences.

[26] Exceptions include: (1) the decision is successfully challenged, (2) circumstances or conditions change, or (3) a responsible agency becomes a lead agency.
[27] Because NEPA does not require separate discussion of mitigation measures or growth inducing impacts, these points of analysis may need to be added before the EIS can be used as an EIR.
[28] The lead agency should consult with the federal action agency as soon as possible, if they plan to use NEPA documentation prepared by the federal agency or jointly with the federal agency.
[29] A project is subject to CEQA if it is an activity undertaken by a public agency or a private activity which must receive some discretionary approval from a government agency which may cause either a direct physical change in the environment or a reasonably foreseeable indirect change in the environment.

Initial Study. For projects subject to CEQA, the lead agency first performs an initial study to identify environmental impacts of the project and whether the identified impacts are "significant."[30] As soon as a lead agency determines that an initial study is required, it must consult informally with all responsible agencies to get their input on which environmental review document should be prepared (either a Negative Declaration or an EIR). Based on its finding of significance, the lead agency prepares either a Negative Declaration or an EIR.[31]

Negative Declaration. If the agency does not find any significant impacts, it prepares a Negative Declaration. If the agency finds significant impacts but the project is revised to mitigate those impacts, then the project can qualify for a *Mitigated Negative Declaration*. In either case, the lead agency gives public notice and provides for a public review period lasting at least 20 days, during which time the initial study and the Negative Declaration are available for review and comment. After the public review period, the lead agency makes a decision on the project and files a Notice of Determination to document its decision.[32]

Environmental Impact Report. If the agency finds significant impacts, it prepares an EIR. To the extent possible, the EIR process should be combined with the existing planning, review, and project approval process used by each public agency. The purpose of an EIR is to provide state and local agencies and the general public with detailed information on the potentially significant environmental effects that a proposed project may have, to list ways the effects may be minimized, and to indicate alternatives to the project.

Immediately after deciding that an EIR is required for a project, the lead agency issues a Notice of Preparation stating that an EIR will be prepared. This notice will be sent to all involved agencies.[33]

Within 30 days of receiving the Notice of Preparation, each involved agency must respond to the lead agency with specific details about the scope and content of the environmental information to be included in the draft EIR. In order to expedite this consultation, the applicant and representatives of the agencies involved may hold meetings to assist in determining the scope and content of the environmental information that is needed.[34] Additionally, prior to completing the draft EIR the lead agency may also consult directly with any person or organization it believes will be concerned with the environmental effects of the project.[35]

Once the draft EIR is completed, the lead agency must file a Notice of Completion and provide public notice of the availability of the draft. The public review period for a draft EIR lasts at least 30 but not more than 60 days. After the public review period, the lead agency prepares the final EIR, including response to comments received on the draft.

The lead and responsible agencies consider and approve the final EIR, and they may include findings on feasibility of reducing or avoiding significant environmental effects. Finally, the lead agency makes a decision on the project and files a Notice of Determination to document its decision.[36]

Process Time: Up to one year for an EIR; up to 105 days for a Negative Determination.[37]

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[30] While there is no absolute, definition of "significance," Article 5 of the state CEQA Guidelines provides criteria to lead agencies for determining whether a project may have significant effects.

[31] During or immediately following preparation an initial study, the lead agency may consult with the applicant to determine if the applicant is willing to modify the project to reduce or avoid the significant effects identified.

[32] Local agencies file Notice of Determination with the county clerk, and state agencies file Notice of Determination with the Office of Planning and Research.

[33] For the purposes of this document, "involved agencies" include the Office of Planning and Research (OPR), each responsible and trustee agency in the state, and every federal agency involved in approving or funding the project.

[34] Such meetings will be convened by the lead agency no later than 30 days after the meetings are requested. On request, OPR assists in convening meetings that involve state agencies.

[35] Many public agencies have found that early consultation, or scoping, solves many potential problems that would arise in more serious forms later in the review process. Scoping is necessary when preparing an EIR/EIS jointly with a federal agency.

[36] Local agencies file a Notice of Determination with the county clerk, and state agencies file a Notice of Determination with OPR.

[37] At the request of an applicant, the lead agency may waive the one-year time limit for an EIR or the 105-day period for a Negative Declaration if (1) the project is subject to both NEPA and CEQA, and (2) the preparation of the combined documents (i.e., EIR-EIS or Negative Declaration-FONSI) requires additional time, and (3) the time to prepare the combined documents is less than the time required to prepare those documents separately.

Legal Authority: California Environmental Quality Act (PUB. RES. CODE § 21000 et seq.); CEQA Guidelines (CAL. CODE REGS. Title 14, §§ 21100-21108).

7.8 State Lands Lease

In California, a lease is required for numerous ocean uses, including offshore activities like installation of buoys, moorings, docks, recreation facilities, piers, and wharves. For work in harbors and waterways, dredging permits are issued to both public and private parties. However, leases for sovereign submerged lands are generally issued only to riparian- or littoral-use rights holders. A lease may also be needed for onshore activities like rights-of-way for pipelines and power lines.

Lead Agency: SLC has board authority to lease state lands (except in the San Francisco Bay area where the San Francisco Bay Conservation and Development Commission has state authority and control). SLC also issues permits for low energy geophysical surveys in state waters. SLC is assisted by a staff of more than 200 specialists in mineral resources, land management, boundary determination, petroleum engineering, and the natural sciences. The staff is supervised by an Executive Officer appointed by SLC.

SLC has broad mandates for protection of California's natural environment. A 1983 California Supreme Court ruling[38] held that the State has an "affirmative duty to take the public trust into account" in making decisions affecting public trust resources, as well as a duty to continue supervising these resources and require modification of decisions affecting them. SLC follows this mandate when considering the use of "sovereign lands" under its jurisdiction and seeks cooperation of other agencies having authority over public trust resources.

SLC staff often prepares EIRs for land use changes within its jurisdiction, routinely comments on EIRs for projects that affect the State's lands, and reviews permit applications submitted to CCC, the San Francisco Bay Conservation and Development Commission, and US Army Corps of Engineers (COE).

Review Process: SLC staff reviews all applications and makes recommendations to the SLC for action. In reviewing lease applications, SLC staff considers several factors including consistency with the public trust doctrine, protection of natural resources and other values, and preservation or enhancement of public access to state lands.

Before issuing a lease, SLC must comply with CEQA. This generally involves environmental review of the potential effects of the proposed use of the leased land, and it can often be coupled with the required CEQA review for other permits that the project requires. If a project requires an authorization from a regulated utility, such as an easement to cross a transmission line, the lease or easement will likely require approval from the CPUC, which is also subject to CEQA compliance. Applications must include an outline of the proposed project, supporting environmental data, and payment of appropriate fees. There is a filing fee, as well as a processing fee for SLC services competed.

Additionally, SLC issues leases competitively through a bidding process. SLC issues a Notice of Intent[39] to receive bids, which specifies the lands available for bid, the time and place for the opening and receipt of bids, and the availability of appropriate approved bid packages and forms at the SLC office. SLC then (at the specified time and place) publicly opens or has opened the sealed bids and awards the highest or lowest responsible bidder, as appropriate. However, if SLC feels that such award is not in the best interest of the State, it may reject all existing bids and either call for new ones or terminate bidding.

Process Time: Varies by project.

Legal Authority: PUB. RES. CODE sections 6501-6509.

[38] National Audubon Society v. Superior Court, 33 Cal. 3d 419 (1983).
[39] This NOI must be published at least once in a newspaper of general circulation in the county in which the lands, interest or project is located and may have such notice published at least once in a newspaper of general circulation in the City of Los Angeles, or San Francisco, or Sacramento.

7.9 California Endangered Species Act Consultation

CESA[40] generally parallels the main provisions of the federal Endangered Species Act (ESA); like the ESA, CESA prohibits the "taking" of listed species except as otherwise provided in state law.[41] Unlike its federal counterpart, CESA applies the take prohibitions to species listed *and* those petitioned for listing (state candidates).

Lead Agency: CESA is administered by CDFW.[42] State lead agencies are required to consult with CDFW to ensure that any actions they undertake are not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat. However, CESA does allow for take incidental to otherwise lawful projects if certain conditions are met.

Review Process: Projects requiring federal authorizations (e.g., FERC license, COE Permit) will likely require a federal ESA Section 7 consultation. If a biological opinion (BO) is required, CDFW may work with the federal resource agencies involved in its development and then adopt the BO through a consistency determination process. Alternatively, CDFW may authorize incidental take by issuing a permit under Fish and Game Code Section 2081(b). In either case, the conditions will be determined by CDFW and must meet the following criteria:

- The authorized take is incidental to an otherwise lawful activity;
- The impacts of the authorized take are minimized and fully mitigated;
- The measures required to minimize and fully mitigate the impacts are roughly proportional (in extent) to the impact of the take; maintain the applicant's objectives to the greatest extent possible; and are capable of successful implementation;
- Adequate funding is provided to implement the required minimization and mitigation measures, and to monitor compliance with and effectiveness of the measures; and
- Issuance of the permit will not jeopardize the continued existence of a state-listed species.

For projects requiring federal authorizations, the federal action agency[43] reviews the project for potential impacts on listed species and designated critical habitat. If the federal action agency is able to determine that the project is not likely to adversely affect the federally-listed species or adversely modify designated critical habitat, the agency requests that the appropriate resource agencies (e.g., National Marine Fisheries Service, US Fish and Wildlife Service, and CDFW) concur with this determination.

If the resource agencies concur with the federal action agency's determination or can make modifications to the project that will likely reduce potential impacts, the resource agency writes a letter formalizing the determination of not likely to adversely affect listed species or adversely modify designated critical habitat.[44]

If the resource agencies do not concur, or the federal action agency is unable to make a determination of not likely to adversely affect the listed species or adversely modify designated critical habitat, then the agency may request more information or require formal consultation. If a project requires formal consultation,[45] then the resource agency develops a BO for the project, which provides authority for (1) the incidental take of listed species (for CDFW this would likely be a permit under Fish and Game Code § 2081); (2) measures designed to avoid or minimize adverse effects; or () issuance of a jeopardy opinion.

If a project affects a state endangered species only, CDFW must be contacted directly by the applicant for further direction and possibly permitting. For projects that are located in an area where State species of special concern

[40] Under CESA, the term "endangered species" is defined as a species of plant, fish, or wildlife which is "in serious danger of becoming extinct throughout all, or a significant portion of its range" and is limited to species or subspecies native to California.
[41] Fish and Game Code § 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."
[42] https://wildlife.ca.gov/Explore/Organization/HCPB.
[43] For the purposes of this document, the federal action agency is the agency issuing the license, lease or permit to authorize a project or component of a project (e.g., FERC, COE).
[44] Although not required by regulation, the agency will attempt to respond with this letter within 30 days of receiving a complete package of necessary information.
[45] Federal regulations allow 135 days to complete formal consultation under § 7 of the ESA.

occur the applicant must contact CDFW directly. In all cases, CESA emphasizes early consultation to avoid potential impacts and to develop appropriate mitigation planning.

Process Time: Varies; if it is concurrent with the federal ESA consultation, the generally anticipated process time is 4.5 months.

Legal Authority: California Endangered Species Act (Fish and Game Code § 2050 et seq.).[46]

7.10 California Agency Contact Information

Agency	Web Address	Mailing Address	City	State	Zip	Phone
California Coastal Commission	https://www.coastal.ca.gov/	45 Fremont St., Suite 2000	San Francisco	CA	94105	415.904.5200
San Francisco Bay Conservation and Development Commission	http://www.bcdc.ca.gov/	455 Golden Gate Ave., Suite 10600	San Francisco	CA	94102-7019	415.352.3600
California Natural Resources Agency	http://resources.ca.gov/	1416 Ninth St., Suite 1311	Sacramento	CA	95814	916.653.5656
State Water Resources Control Board	https://www.waterboards.ca.gov/	1001 I St.	Sacramento	CA	95814	916.341.5455
Regional Water Resources Control Board	https://www.waterboards.ca.gov/	Varies by Region	Varies by Region	CA	Varies by Region	916.341.5455
California Department of Fish and Wildlife	https://www.wildlife.ca.gov/	1416 9th St., 12th Floor	Sacramento	CA	95814	916.653.7664
State Lands Commission	www.slc.ca.gov	100 Howe Ave., Suite 100 South	Sacramento	CA	95825-8282	916.574.1900

[46] https://www.wildlife.ca.gov/Conservation/CESA.

8 Hawaii

8.1 Introduction to Hawaii Agencies and Authorizations

The State of Hawaii is composed of eight major islands which are organized into four counties: Honolulu, Maui, Kauai, and Hawaii. Given its rich heritage and natural resources, Hawaii's state and county regulatory authorities provide significant natural resource protection and management, with numerous laws governing land and water use in the state. Several state and county resource management agencies, boards, and commissions share responsibility for land and water use in the state.

In Hawaii, the four counties have management authority in the form of planning, zoning, and subdivision of lands.[1] These state-mandated county regulatory programs are incorporated into Hawaii's Coastal Zone Management (CZM) Program; as a result, the county planning departments play a major role in implementing the CZM Program through their Special Management Areas (SMA) and Shoreline Setback Provisions.

To help coordinate the various regulations governing land and water use, Hawaii's CZM Program provides a framework within which state and county agencies function as a network. The CZM guides the actions of federal, state and county agencies, which must comply with the program's objectives and policies. The Office of Planning, within the Department of Business, Economic Development and Tourism (DBEDT), administers Hawaii's CZM Program, which includes responsibility for performing CZMA federal consistency reviews.

Additionally, uses of Hawaii state waters and sovereign submerged lands are subject to a state environmental review, which is documented in a report similar to a NEPA document (i.e., EIS). Hawaii's Environmental Impact Statement Law requires that environmental review documents for proposed projects be circulated to the public for review. Twice a month, the Department of Health's (DOH) Office of Environmental Quality Control (OEQC) publishes *the Environmental Notice* (also referred to as "the periodic bulletin"), which informs the public of all proposed projects in the state that are subject to public review, as well as specific dates for comment periods.[2]

Further, the Department of Hawaiian Home Lands has special regulatory authority on certain areas in the state, such as native Hawaiian burial grounds. Hydrokinetic developers should contact the Department of Hawaiian Home Lands when initiating consultation with state and county agencies.

8.2 Permitting Facilitation for Renewable Energy in Hawaii

Given the complex system of county and state regulatory requirements, there are multiple permitting strategies available to project proponents. To promote renewable energy and to help ensure efficient permitting, the Hawaii state legislature passed the Renewable Energy Facility Siting Act (ACT 207 SLH 2009) in 2009 to establish a full-time, temporary renewable energy facilitator position within DBEDT.

This renewable energy facilitator is responsible for assisting project proponents in developing a permitting plan and for promoting efficiency and transparency in the permitting process. Pursuant to Act 207, this permitting plan functions to seek efficiencies in renewable energy facility[3] siting processes and procedures, including the coordinated and concurrent processing of permits where possible, while ensuring opportunities for appropriate public comment and participation, including hearings for permits and mitigation of potential environmental impacts.

Upon acceptance of a permit plan application for a renewable energy facility, the coordinator holds a public meeting on the island on which the renewable energy facility would be built. The purpose of the public meeting is to afford an opportunity for members of the affected community to provide input on the proposed development and construction of the renewable energy facility, as well as the proposed permitting plan. Each appropriate state and county agency is expected to diligently endeavor to process and approve or deny any permit in the permit plan no later than twelve months after a completed permit plan application is approved by the coordinator.

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[1] See Appendix A for a list of state and county agencies and offices and contact information.
[2] The Environmental Notice is available for public review on the 8th and 23rd of each month on OEQC's website: http://health.hawaii.gov/oeqc/.
[3] For the purposes of Act 207, a renewable energy facility is defined as a project that has the capacity to produce at least 200 MW of electricity from renewable energy.

If a permit is not approved or denied within twelve months after approval of a completed permit plan application, the permitting agency must provide the coordinator with a report identifying the measures that are being taken by the agency to complete processing and action as soon as practicable. If a permitting agency fails to provide this report and if the permit has not been approved or denied within eighteen months following the approval of a completed permit plan application by the coordinator, the permit shall be deemed approved.

8.3 List of Hawaii Acronyms

CDUA	Conservation District Use Application
CDUP	Conservation District Use Permit
COE	US Army Corps of Engineers
CZM	Coastal Zone Management
DBEDT	Department of Business, Economic Development and Tourism
DEIS	draft environmental impact statement
DLNR	Department of Land and Natural Resources
DOH	Department of Health
DOT	Department of Transportation
EIS	environmental impact statement
EISPN	EIS Preparation Notice
FEIS	final environmental impact statement
LUC	Land Use Commission
LUDBA	Land Use District Boundary Amendment
OCCL	Office of Conservation and Coastal Lands
OEQC	Office of Environmental Quality Control
OP	Office of Planning
SMA	Special Management Area
SSA	Shoreline Setback Area

8.4 Summary Table of Hawaii Authorizations

Authorization/Review	Primary Legal Authority	Lead Agency	Anticipated Process Time
Water Quality Certification	Clean Water Act § 401; HRS 342D; HAR Title 11, Chapter 54	Clean Water Branch, Department of Health	Up to 1 year
CZMA Federal Consistency Determination	CZMA § 307; HRS 205A	Office of Planning, DBEDT	Up to 6 months from receipt of complete application
Special Management Area Permit	HRS 205A-26	County Planning Department; or Office of Planning, DBEDT	6-12 months
Shoreline Certification	HAR Title 13, Chapter 222	Lands Division, DLNR	3-5 months
Shoreline Setback Area Permit	County Code	County Planning Department	Up to 1 year
State Environmental Impact Statement	HRS 343	Varies[4]	1-2 years
Land Use District Boundary Amendment	HRS 205	State Land Use Commission (LUC), DBEDT	1 year
Conservation District Use Permit	HRS 183C	Office of Conservation and Coastal Lands (OCCL), DLNR	6 months

[4] The first agency to issue a discretionary permit (e.g., SMA Permit, Conservation Use District Permit, or a Shoreline Setback Variance) is the approving agency for the state environmental review. The Office of Environmental Quality Control, within the Department of Health, facilitates the review process.

Authorization/Review	Primary Legal Authority	Lead Agency	Anticipated Process Time
State Ocean Lease, Right-of-Entry	HRS 190D, HRS 171-95	Land Division, DLNR	6-18 months

8.5 Clean Water Act Section 401 Water Quality Certification

The purpose of CWA Section 401 is to ensure that no federal license or permit authorizes an activity that would violate the state's water quality standards or become a future source of pollution. A Section 401 Water Quality Certification (WQC) covers construction, operation, maintenance and decommissioning of a proposed project, and conditions of the WQC become conditions of the federal license or permit. All aspects of the project, including energy production devices and any cables in, on, or under state waters (including wetlands) are considered in the review.

Lead Agency: In Hawaii, the Department of Health's (DOH) Clean Water Branch administers the Section 401 WQC program. Use of construction materials and equipment in navigable waters, as well as dredged spoil, biological materials, and heat, are likely to qualify as a "pollutants" and therefore require a WQC. The DOH provides WQC Application Guidelines and submission instructions on its website.[5]

Review Process: Processing of Section 401 WQC applications begins when an application for certification is received and deemed complete. A complete application must include an application fee and all information required by state law.[6] If the application is incomplete, the applicant shall be notified in writing of any additional information or action needed. The application information requirements include (but are not limited to) a list of associated permits or licenses, a description of the existing environment, a Best Management Practices Plan, a Monitoring and Assessment Plan and a Mitigation/Compensation Plan.

DOH reviews the application and drafts an initial determination. If DOH's initial determination indicates that the proposed activity can be certified, then the applicant must prepare a public notice. DOH issues the Notice of Proposed WQC, which commences a 30-day public comment period.

If there is not significant public interest (i.e., justifiable requests for a public hearing or significant adverse comments) during the public comment period, then DOH may issue the WQC.

If significant public interest does exist, then the applicant must publish a Notice of Public Hearing, and DOH must hold a public hearing to address the concerns. If the concerns are adequately addressed and resolved through the public hearing, then DOH may issue the WQC. However, if the public hearing does not adequately address the concerns, then DOH may deny the WQC.

If the proposed activity is highly controversial, the applicant is encouraged to bypass the Notice of Proposed WQC; instead, the applicant should arrange a public hearing and prepare a Notice of Public Hearing.

Once the Director considers all evidence from the application, the public comment period and the public hearing (if applicable), DOH issues a final determination for issuance or denial of the Section 401 WQC. If a WQC is issued, the project proponent is required to comply with any conditions noted within the certification. If the WQC is denied, then the project may not proceed.

Process Time: Based on the *Hoopa* decision, a WQC determination must be made within one year.[7] Project proponents should apply for WQC at least six months prior to the start of "discharge" activities.

Legal Authority: Clean Water Act Section 401; Section 342D-53 HRS.

[5] http://health.hawaii.gov/cwb/permitting/section-401-wqc/blanket-section-401-wqc/.
[6] The filing fee is not refundable if the application is terminated or if the WQC is denied.
[7] https://www.environmentallawandpolicy.com/2019/01/d-c-circuit-strikes-withdraw-resubmit-practice-state-quality-certifications/.

8.6 Coastal Zone Management Act Federal Consistency Determination

In the CZMA, Congress created a federal-state partnership for management of coastal resources. Section 307 of the CZMA requires that federally licensed or permitted activities[8] be consistent with state coastal management policies (e.g., land use planning statutes, marine spatial planning, and water quality standards).[9] A *consistency determination* is the process used to implement this requirement for federal permits and licenses. Hydrokinetic projects will likely require a Section 404 Permit, a Section 10 Permit, and/or a FERC license, all of which require a consistency review.

Because Hawaii is composed entirely of islands with no point of land more than 30 miles from shore, Hawaii's coastal zone encompasses the entire state. Accordingly, Hawaii's CZM Program coordinates the various resource authorities throughout the state so that they function as a network in implementing the CZM Program.

Lead Agency: Within this management framework, OP - located within DEBDT- acts as the lead agency for the CZM Program. OP is responsible for ensuring compliance with Hawaii's CZM Program by all state and county agencies, which involves monitoring CZM-related activities and authorizations issued by the various agencies. One of the main functions of OP is to review federal permits, licenses, and development proposals for consistency with the Hawaii CZM Program. OP also monitors state and county authorizations for compliance with the CZM Program, including Land Use District Boundary Amendments (LUDBA), Conservation District Use Applications (CDUA), SMA Permits, and State Environmental Review documentations.

Review Process: Upon application for a federal license or permit, a project proponent must supply a copy of its consistency determination to the State. OEQC issues public notice of consistency reviews in the *Environmental Notice*.[10]

The basic application submittal for a CZM federal consistency review includes the following materials: CZM application form; detailed project description; CZM assessment form; site location map; project plan or drawings; copy of the federal permit or license application; copy of the application for WQC; and any additional information that will assist the review (e.g., EA or EIS, surveys, study and monitoring plans, etc.).

Within six months of a complete consistency certification submission, OP reviews the application and notifies the federal action agency and the applicant of its concurrence or objection to the consistency determination. A consistency determination is issued when the applicant and the project reviewers concur with the state's consistency determination, including any stipulations.[11]

If a decision is not issued within three months of receipt of a complete application, the State must notify the applicant and the federal agency of the application's status and the reason for further delay. If the State fails to respond within six months of commencing a review, then concurrence with the consistency certification is presumed. If the State concludes that the proposed activity is not consistent with the Hawaii CZM Program, the State will attempt to consult with the applicant and the federal action agency to resolve any consistency concerns.

Process Time: Up to six months.

Legal Authority: Coastal Zone Management Act, 16 USC 1451, et seq.; Hawaii Coastal Zone Management Law, HRS 205A.

8.7 Special Management Area Permit

Each county in Hawaii has its own land use plans and policies through which it establishes the types of uses allowed in various areas of the county, including designated SMAs. To ensure that coastal land uses and activities comply

[8] A federal license or permit includes any authorization, certification, approval, or other form of permission that any federal agency is empowered to issue to an applicant. 15 CFR § 930.51.
[9] The federal consistency review requirements and procedures are detailed in 15 CFR § 930.
[10] In accordance with Section 306(d)(14) of the National Coastal Zone Management Act of 1972, as amended, public notice must be provided when an applicant submits a consistency determination to the state for review.
[11] An objection to a consistency determination may be appealed to the Secretary of Commerce.

with the CZM Program, each county regulates shoreline[12] development through its own SMA permit system.[13] Similar to the federal CZMA consistency process, the SMA permit system reviews proposed development that is otherwise authorized (e.g., state ocean lease) to ensure that it is consistent with the SMA guidelines. SMA permits will likely be required for shore-based components of hydrokinetic projects, such as transmission lines.

Depending on the scope of the proposed activity, either a *minor*[14] or *major* SMA permit may be required. Most hydrokinetic projects will likely require a major SMA permit. A major SMA permit authorizes development activities that have a construction valuation of greater than $125,000 and are expected to have significant and/or cumulative effects on the coastal zone area.

Lead Agency: Any development activity requiring a major SMA permit is subject to review by the respective County Planning Department.[15]

Review Process: To initiate the review process, applicants provide project-specific information to the County that is sufficient for its evaluation of the proposed activity. Upon initial review of the project description, the County may require the applicant to prepare an EA or an EIS; additionally, the applicant may be asked to prepare technical studies. The application and any other information are reviewed by various federal, state, and county agencies, and a public hearing is held.[16] Once the County Planning Director makes a recommendation on the application, the County Planning Commission issues a final decision on whether or not to issue the SMA permit.[17]

Compliance with the SMA guidelines must be achieved before an SMA permit can be approved. In most cases, SMA approval requires mitigation measures as conditions of the permit to ensure consistency with the SMA guidelines. Conditions may include a provision of public shoreline access, preservation of important archaeological sites, and boundary setback requirements to preserve coastal views from public areas. In rare cases where consistency cannot be achieved through mitigation measures, the SMA permit could be denied and the proposed use would not be permitted.

The SMA permit process requires that surrounding land owners be notified of the proposed development activity and that public hearing notices be published in local newspapers. Individuals may provide written and/or oral testimony at the public hearing, and any member of the public may request to review an SMA permit application and provide written comments.[18] Also, if an EA or EIS is required for a project, members of the public may review and provide written comments on those documents.

Process Time: Usually about six months but could take up to twelve months.

Legal Authority: HRS 205A – 26.

[12] "Shoreline" means the upper reaches of the wash of the waves, other than storm or seismic waves, at high tide during the season of the year in which the highest wash of the waves occurs, usually evidenced by the edge of vegetation growth, or the upper limit of debris left by the wash of the waves (HRS § 205A-1).
[13] Each county implements its SMA permit system according to its own rules and ordinances. For information related to county permitting, please refer to each county directly: Honolulu www.honoluludpp.org; Maui www.mauicounty.gov; Kauai www.kauai.gov/planning; Hawaii www.planning.hawaiicounty.gov.
[14] SMA minor permits authorize development activities that do not have a construction valuation of more than $125,000. This approval has an abbreviated review period and does not require a public hearing.
[15] SMA permits for activities in areas that fall within a Community Development District are administered by the Office of Planning.
[16] Sequence of events varies by county.
[17] Except in Honolulu, where the City Council issues the final decision.
[18] Applications are available for review at the respective County Planning Department.

8.8 Shoreline Setback Areas

Within SMAs, the Hawaii CZM Program also provides for shoreline setback areas (SSAs). SSAs generally extend 40 ft. from the shoreline, but each county has the authority to extend SSAs further inland. The landfall connection components of hydrokinetic projects will likely occur in SSAs. No structures (or portions of a structure) are permitted in SSAs without an SSA permit. In order to apply for an SSA permit from the respective county, project developers must first obtain a shoreline certification from the Department of Land and Natural Resources (DLNR).

8.9 Shoreline Certification

Shoreline certification serves as an official recognition of the precise location of the shoreline for purposes of implementing the shoreline setback laws. Shoreline certifications are generally valid for only one year. However, in cases where the shoreline is fixed by artificial structures, the certification is valid as long as the artificial structure is intact and unaltered. Since hydrokinetic projects will likely involve artificial structures, project proponents should be able to obtain shoreline certification that is valid for the life of the project.

Lead Agency: The Lands Division of DLNR is the lead agency for Shoreline Certifications. This authorization is issued in the form of a signed statement by the chairperson of the Board of Land and Natural Resources that the shoreline is as located and shown on the map as of a certain date.

Review Process: As part of the shoreline certification process, applicants must hire a licensed land surveyor to prepare a shoreline survey and submit it to DLNR with the certification application and fee.[19] Applicants are also responsible for reimbursement of any costs incurred by the State for processing the shoreline certification, such as travel costs for site inspections. DLNR informs an applicant of these costs when they give notification of the State Land Surveyor's proposed certification or rejection of the shoreline survey. Applicants must remit payment prior to the Department releasing the signed shoreline maps. Application forms, including a checklist of required enclosures, are available online.[20]

Once an application and the required materials are submitted and deemed complete, the state land surveyor reviews the map, photographs, and other documents and information provided by the applicant to determine the official shoreline. The state land surveyor may make a site inspection prior to issuing a shoreline certification. To resolve differences in interpretation of the shoreline, the state land surveyor may also consult with the licensed land surveyor who prepared the field survey and map, as well as any interested persons who submitted comments to the application. In some cases, the state land surveyor may require the applicant to revise the map.

Within 15 days of publication in the *Environmental Notice*, any person or agency meeting certain criteria may appeal the proposed certification or rejection of a shoreline certification. Detailed information on how to file an appeal is available online.[21]

Process Time: Processing of shoreline certifications is subject to automatic approval; however, the process usually takes 3-5 months from the date of the initial survey to the date of certification. If DLNR fails to render a decision within 90 days from acceptance of a completed application, then the shoreline application is deemed certified.

Legal Authority: HAR Chapter 13-222, "Shoreline Certifications."

8.10 Shoreline Setback Area Permits

Like the SMA permitting program, each county regulates development activities that fall within close proximity to the shoreline through its own SSA rules. These rules seek to maximize protection from coastal hazards while preserving coastal amenities and shoreline access for the public.

Lead Agency: The County Planning Department in the area where a project is proposed will act as the lead agency for SSASSA permits. As discussed below, two types of SSA permits exist.

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[19] This fee may be waived for federal, State and county projects. This fee will be returned only where the application is withdrawn prior to the Department initiating its review for completeness.
[20] https://dlnr.hawaii.gov/ld/files/2013/08/SC-Application.pdf.
[21] https://dlnr.hawaii.gov/ld/files/2013/07/Ch13-222-Amend-Compil-Stand-Rev1.pdf.

8.10.1 Shoreline Setback Approvals & Determinations

For activities and/or structures that are explicitly allowed in the SSA, the County Planning Department issues a Shoreline Setback Approval, as well as a Shoreline Setback Determination indicating that calculating the SSA was done properly and correctly.

8.10.2 Shoreline Setback Variance

A Shoreline Setback Variance is required for activities and/or structures not explicitly allowed within the SSA. For example, structures such as seawalls may require a setback variance.

Review Process: The specific review process varies from county to county. Please refer to the respective county's planning department websites (listed in the preceding footnotes) for shoreline permitting procedures.

Shoreline permits, like SMA permits, may include certain conditions or requirements before the proposed structure or activity is allowed to proceed. Criteria for a variance approval often include the following: minimization of dredging, filling, and coastal alterations; maintenance of beach sizes and public access; preservation of the line of sight to the sea from the nearest State highway; and minimization of adverse effects to water quality, fisheries, wildlife, habitat, and agricultural uses.

No structure or activity is allowed if it will have a substantially adverse environmental effect, or if it is inconsistent with SMA Rules, SSA Rules, the County General Plan, County Community Plans and County Zoning.

Process Time: Varies by county; up to 1 year.

Legal Authority: County Code.

8.11 State Environmental Impact Statement

Modeled after the federal NEPA, Hawaii's state environmental review law mandates that if one or more of nine specific conditions (called "triggers") exists for any proposed project, the project must undergo an environmental review. For hydrokinetic projects, the most likely trigger is the proposal of a power-generating facility. Other likely triggers may include the use of state or county lands or funds; Hawaii Conservation District Use Permit (use of conservation district lands); Hawaii SSAs (use within a SSA); and use of an historic site or district, including sites listed in or under consideration for listing in the National or Hawaii Register (HRS 343-5). Further, pursuant to HRS 343-5, a proposal to develop a renewable energy facility requires the preparation of a draft EIS; as such, hydrokinetic projects will require an EIS before a project may be implemented.

Lead Agency: OEQC implements the state environmental review law, commonly known as the "Environmental Impact Statement Law." The accepting agency, which is the first agency to issue a discretionary permit (e.g., Conservation Use District Permit, Shoreline Setback Variance) is the lead agency for the state environmental review process, and OEQC facilitates the review process. If there is a question as to which state or county agency is the accepting agency, then OEQC will consult with the affected agencies and designate the accepting agency. For renewable energy facilities using the Hawaii Renewable Energy Facility Siting Process, DBEDT is the accepting agency. OEQC provides detailed information on how to prepare and submit an EIS, including checklists for the draft and final EIS, agency distribution lists, and instructions for how to comply with public notice requirements.[22]

Review Process: First, the applicant must consult with affected agencies, individuals, and organizations regarding the proposed project. Following this initial consultation, the applicant must issue an EIS Preparation Notice (EISPN), which is published in the periodic bulletin. Agencies, groups, and individuals have 30 days from the EISPN publication date to submit written comments regarding the scope of the EIS and to request to become a consulting party.

[22] http://oeqc2.doh.hawaii.gov/OEQC_Guidance/2012-GUIDE-to-the-Implementation-and-Practice-of-the-HEPA.pdf.

After receiving comments on the EISPN, the applicant must prepare a draft EIS that discusses the likely direct, indirect, and cumulative impacts of the proposed project, as well as mitigation measures. Additionally, the applicant must include a section in the DEIS that lists and responds to comments received on the EISPN. This DEIS is published in the *Environmental Notice,* and the public has 45 days from the date of its publication to comment on the DEIS.

Next, the applicant prepares a FEIS that includes and responds to all comments made on the DEIS. Within 30 days of receiving the FEIS, the approving agency must issue its determination of acceptance or non-acceptance. For applicant actions, the FEIS is deemed accepted if the approving agency does not make a determination of acceptance within 30 days or receiving the FEIS; at the request of the applicant, the 30-day period may be extended for up to 15 days.

If the approving agency accepts the FEIS, a notice of acceptance is published in the periodic bulletin. The public has 60 days from the notice of acceptance to request a court to vacate the acceptance of the FEIS. If the approving agency issues a determination of non-acceptance, the applicant may, within 60 days of the notice of non-acceptance, appeal to the Environmental Council. The Environmental Council will notify the applicant of its decision within 30 days of the appeal request. The Council may either affirm or reverse the appealed non-acceptance, and it must explain its specific findings and reasoning for the determination.

Because most hydrokinetic projects also require federal NEPA analysis documentation, the Hawaii state agencies work with the federal agencies to coordinate the process by preparing joint EISs with concurrent public review and processing at the state and federal levels.

For example, the Wave Energy Test Site project was reviewed through the federal NEPA process. The site buildout (mooring, cables to shore) was covered under two separate federal environmental assessments prepared by the US Navy—one for the 30-meter berth and another for the 60- and 80-meter berths. After that, the individual wave energy conversion deployments are permitted through a categorical exclusion process in which the US Navy determines (in consultation with NOAA, DOH, and COE) whether the project conforms to the environmental assessment.

Process Time: One to two years, depending on the project scope, size, location, etc.

Legal Authority: Environmental Impact Statement Law (Hawaii Revised Statutes, HRS 343).

8.12 State Land Use Law and Land Use Districts

The State Land Use Law was enacted to help preserve and protect Hawaii's lands and encourage uses to which lands are best suited. The Land Use Law places all lands and waters in the state into one of four districts that are characterized by different permissible uses:

URBAN DISTRICT - Urban Districts generally include lands characterized by "city-like" concentrations of people, structures and services. This District also includes vacant areas for future development. Jurisdiction of this district lies primarily with the respective counties.

RURAL DISTRICT - Rural Districts are composed primarily of small farms intermixed with low-density residential lots with a minimum size of one-half acre. Jurisdiction over Rural Districts is shared by the state Land Use Commission (LUC) and county governments. Permitted uses include those relating to or compatible with agricultural use and low-density residential lots.

AGRICULTURAL DISTRICT - Agricultural Districts include lands for the cultivation of crops, aquaculture, raising livestock, wind energy facility, timber cultivation, agriculture-support activities (i.e., mills, employee quarters, etc.) and land with significant potential for agriculture uses.

CONSERVATION DISTRICT - In considering hydrokinetic projects, it is important to note that Conservation Districts include all sovereign submerged lands seaward of the shoreline. Conservation Districts also include the following areas: lands in existing forest and water reserve zones; watershed and water source protection areas; scenic and historic areas; parks; wilderness; open space; recreational areas; and habitats of endemic plants, fish and wildlife.

The state LUC, within DBEDT, is responsible for administering this statewide zoning law. LUC establishes the district boundaries for the entire state and is also responsible for authorizing land uses not explicitly allowed in a particular district. Private landowners, developers, and state and county agencies may a petition LUC for boundary changes by applying for a LUDBA. This process is expected to take up to one year. If the proposed project falls within the Agricultural and Rural Districts, project proponents may petition LUC for a special use permit to authorize activities.

Uses within Conservation Districts are regulated by the Office of Conservation and Coastal Lands (OCCL) within DLNR. Since hydrokinetic projects (or portions thereof) will be located within state waters and submerged lands, a Conservation District Use Permit is probably the most appropriate authorization (rather than a LUDBA).

Conservation Districts are divided into subzones, each with a limited number of permitted identified uses: protective, limited, resource, general, and special. Omitting the special subzone, the four subzones are arranged in a hierarchy of environmental sensitivity, ranging from the most environmentally sensitive (protective) to the least sensitive (general). The special subzone is applied in special cases specifically to allow a unique land use on a specific site. Each subzone has a unique set of identified land uses, which may be allowed by discretionary permit.[23] Depending on the subzone and the project, developers may need site plan approval from DLNR, a departmental permit or board permit, and an approved management plan.

8.13 Conservation District Use Permit

Any use of land in a Conservation District that is not explicitly permitted by the state Land Use Law requires a Conservation District Use Permit (CDUP). All ocean waters and submerged lands in Hawaii are part of the state's Conservation District; therefore, hydrokinetic projects will likely require a CDUP.

Lead Agency: OCCL, within DLNR, is responsible for CDUP review and issuance. OCCL provides a Conservation District Use Application (CDUA) that is specific to marine activities.[24] The Marine CDUA form, along with detailed application instructions, is available on the OCCL website.[25]

Review Process: Project developers must first write the OCCL and make a Request for Information that includes the parcel's Tax Map Key (TMK), applicant name, and a return address; it should also include information about existing structures and uses and any proposed new structures and uses. OCCL will respond within 30 days with information regarding the parcel's Conservation District subzone and identified uses, the level of permitting required for the proposal, and any history of prior correspondence, existing site plan approvals, or past CDUAs.

In order to be considered complete for processing, a CDUA must include a completed form, appropriate filing fees, and a signature from the chairperson of the Board of Land and Natural Resources (BLNR).[26] Detailed environmental review information is also required. The project's DEIS should be attached to the CDUA, and the FEIS must be published at least 45 days before the CDUA 180-day processing deadline.

Additionally, DLNR must receive evidence from the applicable county that the proposed project is or will be in compliance with the county SMA requirements. For hydrokinetic projects, evidence will likely be provided in the form of an SMA permit for the proposed use.[27] Evidence of SMA compliance must be submitted to DLNR at least 30 days before the CDUA 180-day processing deadline. Other materials that must accompany the application include a location/area plan, a site plan, an emergency response plan, a business plan, and a management plan.[28]

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[23] As outlined in HAR Chapter 13-5, Subchapter 3 https://dlnr.hawaii.gov/occl/files/2013/08/13-5-2013.pdf.
[24] "Marine activities" include "energy or water research, scientific, and educational activities in, on, or under state marine waters or submerged lands."
[25] https://dlnr.hawaii.gov/occl/forms-2/.
[26] In situations where the State of Hawaii is the landowner, the application requires the signature of the BLNR Chairperson. Since advanced water power projects will be located in state waters, the State of Hawaii would be considered the landowner.
[27] Evidence for SMA compliance could also be in the form of a determination that the proposed land use is outside the SMA or is exempt from the SMA provisions.
[28] Information requirements for these plans are explained in the instructions section of the Marine CDUA form.

Notice of CDUA is published in the environmental bulletin. If DLNR determines that a public hearing is not necessary for the proposed project, members of the public who would like further opportunity to participate may intervene in the permit process. The CDUA, along with OCCL staff's recommendation on the application, will be presented to the Board within six months of the CDUA's acceptance for processing. CDUP's are issued at the discretion of BLNR.

Process Time: up to six months.

Legal Authority: HRS 183C, 190D; HAR, Chapter 13-5, Conservation District Rules and Regulations.

8.14 State Ocean Lease, Right-of-Entry

Hawaii's state-owned lands are managed by its government to promote the social, environmental and economic well-being of Hawaii's people. These lands are available to the public through fee sales, leases, licenses, grants of easement, rights-of-entry, month-to-month tenancies, or are kept as open space area. Ocean and submerged land leases are required for long-term uses of these areas, such as siting transmission lines for hydrokinetic projects.

Lead Agency: Lands that are not set aside for use by other government agencies come within the direct purview of the state Lands Division.[29] The Lands Division, within the DLNR, is responsible for ensuring that these lands are used in accordance with the goals, policies and plans of the State. In considering proposed hydrokinetic developments, the Lands Division will consider existing navigational, fishing, recreational, military, government, commercial and cultural uses of the area. Rights-of-entry may be appropriate for authorizing exploratory work in state waters, such as surveys and resource assessment activities.

Review Process: Most land and ocean leases are issued through a public auction; however, hydrokinetic projects will likely qualify as "renewable energy producers." Renewable energy producers may be eligible to obtain authorizations (leases, revocable permits, licenses and easements) through direct negotiations with DLNR.[30] Because hydrokinetic projects incorporate unique, innovative technologies, a customized lease document tailored to the project's requirements will be prepared, subject to approval by the state Attorney General.

Applications must include detailed information about the proposed project, including the specific location, size of the area, zoning, Trust Land status (with the Department of Hawaiian Homelands), current use status, character of the proposed use, proposed lease term (usually 25 – 45 years), lease commencement date, and annual rent. Additionally, all lease applicants are required to demonstrate compliance with the state Environmental Impact Statement Law (HRS 343). The state Land Board may issue an "approval in principle" prior to issuance of the state EIS; however, an approval in principle may be rescinded if the applicant does not demonstrate satisfactory compliance with the state EIS Law.

Process Time: Varies; however, leases are not effective until the applicant demonstrates satisfactory compliance with HRS 343, which may take six to eighteen months.

Legal Authority: HRS 171-95; HRS 190D, "Ocean & Submerged Lands Leasing."

8.15 Hawaii Agency Contact Information

Agency	Web Address	Mailing Address	City	State	Zip	Phone
Department of Business, Economic Development and Tourism	http://dbedt.hawaii.gov/	P.O. Box 2359, No. 1 Capitol District Building, 250 S. Hotel St.	Honolulu	HI	96804-2359	808.586.2423
DBEDT, Office of Planning	http://planning.hawaii.gov/	P.O. Box 2359 235 South Beretania St., 6th Floor	Honolulu	HI	96804-2359	808.587.2846

[29] http://dlnr.hawaii.gov/ld/.
[30] HRS § 171-95.

Agency	Web Address	Mailing Address	City	State	Zip	Phone
DOH- Clean Water Branch	http://health.hawaii.gov/cwb/	P.O. Box 3378 2827 Waimano Home Road #225	Pearl City	HI	96782	808.586.4309
DOH- Office of Environmental Quality Control	http://health.hawaii.gov/oeqc/	235 South Beretania St., Suite 702	Honolulu	HI	96813	808.586.4185
Department of Land and Natural Resources	http://dlnr.hawaii.gov/	1151 Punchbowl St., Room 330	Honolulu	HI	96813	808.587.0400
DLNR-Land Division	http://dlnr.hawaii.gov/ld/	1151 Punchbowl St., Room 220	Honolulu	HI	96813	808.587.0419
DLNR-Office of Conservation and Coastal Lands	http://dlnr.hawaii.gov/occl/	1151 Punchbowl St., Room 131	Honolulu	HI	96813	808.587.0377
Land Use Commission	http://luc.hawaii.gov/	P.O. Box 2359 235 South Beretania St., Room 406	Honolulu	HI	96804-2359	808.587.3822
Office of Planning Honolulu County	http://www.honoluludpp.org/	650 South King St., 7th Floor	Honolulu	HI	96813	808.768.8000
Office of Planning Maui County	https://www.mauicounty.gov/121/Planning-Department	200 S. High St., Kalana Pakui Bldg., 6th Floor	Wailuku	HI	96793	808.270.7735
Office of Planning Kauai County	www.kauai.gov/planning	4444 Rice St., Suite A473	Lihue	HI	96766	808.241.4050
Office of Planning Hawai'i County	https://www.planning.hawaiicounty.gov	101 Pauahi St., Suite 3	Hilo	HI	96720	808.961.8288

9 Maine

9.1 Introduction to Maine Agencies and Authorizations

With a long history of hydropower development in the state, Maine has strong policies in place to protect its waterways and to manage hydropower projects.[1] The Maine Rivers Policy (commonly referred to as the "Rivers Bill") protects outstanding segments of rivers and streams from new dam construction and provides for stringent review of further development of existing dams in these areas. In 1987, the State enacted the Maine Waterway Development and Conservation Act (MWDCA) to support and encourage the development of hydropower projects by simplifying and clarifying the permitting requirements. Specifically, projects authorized by a MWDCA permit are not required to receive separate permits under the Natural Resource Protection Act, the Site Law, and the state Land Use Standards. When the Maine Department of Environmental Protection (DEP) issues a MWDCA permit, it also issues a Clean Water Act Section 401 water quality certification (WQC) in the same document. The WQC review is coordinated with the MWDCA review. The MWDCA divides MHK projects into two categories, demonstration projects and commercial projects. The MWDCA contains a General Permit provision for demonstration projects, defines what they are, and requires that they be removed once the permit has expired.[2] A full scale commercial project is reviewed in a fashion similar to a traditional hydropower project.

In addition to the Rivers Bill and the MWDCA, the State has a coordinated process for early identification of regulatory requirements for projects within state coastal waters. Nearly all hydrokinetic facilities will require the authorizations included in this chapter; however, this is not intended to be an exhaustive list as particulars of permitting will vary with each facility.

In its MWDCA and WQC reviews, the DEP utilizes the Maine Department of Marine Resources (DMR) and the Maine Department of Inland Fisheries and Wildlife (DIFW), especially for authorizing changes to wetland areas through issuance of a MWDCA or WQC. DEP is responsible for any proposed project that uses tidal action as a source of power, regardless of location. DEP also administers these permitting processes for wave power projects in all areas of the state.[3]

Several other state agencies also have review responsibilities for siting hydrokinetic projects in Maine. DIFW and DMR both have responsibility for protecting wildlife and fisheries under the Maine Endangered Species Act. Also, a Submerged Lands Lease from the Bureau of Parks and Lands (BPL) in the Department of Agriculture, Conservation and Forestry (DACF) will be required, and DMR acts as a consultant to BPL on potential impacts to existing uses. For the onshore components of hydrokinetic projects, a Mandatory Shoreland Zoning Act Permit will likely be needed for the landside components of the project. Additionally, proposed projects that may be near historic or archaeological resources will be reviewed by the Maine Historic Preservation Commission (MHPC). Finally, a Coastal Zone Management Federal Consistency Certification, coordinated by the DACF, Planning, may be required for all federally funded or permitted hydrokinetic projects.

DEP emphasizes that because of the Memorandum of Understanding (MOU) between the State of Maine and Federal Energy Regulatory Commission (FERC), it has a joint review process for MHK projects with FERC. Thus, applicants should begin coordinating with DEP as soon as they begin coordinating with FERC. All the materials and submissions required by FERC and the federal resources agencies should also be submitted to DEP.

9.2 Ocean Energy Task Force

Numerous individuals, groups, and businesses have worked diligently to advance development of Maine's vast renewable ocean energy resources. In 2008, the State established the Ocean Energy Task Force (OETF) to identify strategies for focused, collaborative action to facilitate development of these clean energy resources and related business opportunities in a sustainable and environmentally responsible manner that benefits the citizens of Maine.

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[1] In Maine, "hydropower project" means any development that utilizes the flow or other movement of water, including tidal or wave action, as a source of electrical or mechanical power, or which regulates the flow of water to generate electrical or mechanical power. A hydropower project includes all powerhouses, dams, water conduits, transmission lines, water impoundments, roads and other appurtenant works and structures that are part of the development (38 MRSA § 632.3).
[2] http://www.mainelegislature.org/legis/statutes/38/title38sec636-A.html.
[3] http://www.mainelegislature.org/legis/statutes/38/title38sec634-A.html.

One of the main elements of this group's mission was to identify opportunities and methods to advance the development of tidal and wave power in Maine's coastal waters.

Through its various subcommittees, the task force focused on several aspects of ocean energy development, including issues related to environmental and human impacts; regulatory and permitting processes; electric transmission and utility issues; and economic development related to these emerging technologies. In 2009, the State enacted An Act to Facilitate Testing and Demonstration of Renewable Ocean Energy Technology to "streamline and coordinate state permitting and submerged lands leasing requirements for renewable ocean energy demonstration projects...." As a result of this Act, a special General Permit review process is available for tidal energy demonstration projects, which is explained in detail later in this chapter.

In addition, the task force identified that key components of a strategy to facilitate thoughtful siting of renewable ocean energy projects should include significant and active public involvement, as well as effective state-federal coordination, particularly on regulatory and related siting issues. In August 2009, the State of Maine and FERC signed a MOU to coordinate procedures and schedules for review of tidal energy projects off the coast of Maine.[4]

The MOU states that FERC and Maine will undertake all efforts in an environmentally sensitive manner, while taking into account economic and cultural concerns. FERC and the State also committed to establishing coordinated schedules for processing applications and to including specific milestones for each party to complete their respective processes. Further, FERC and Maine committed to working to identify potential issues, identify information requirements, and determine what studies must be conducted to perform the required reviews of proposed projects. The efforts of the OETF culminated with the submission of a final report and recommendations in October 2009.[5]

Recent efforts in Maine have resulted in significant progress to clarify the regulatory framework for siting hydrokinetic projects, and continued efforts are underway. However, jurisdiction in the some of the State's coastal areas is still fairly ambiguous at this time. Given the state's strong tidal energy resources and the new permitting process for demonstration-scale tidal power projects, near-term hydrokinetic development in the state is likely to focus on tidal power.

9.3 List of Maine Acronyms

ASC	Atlantic Salmon Commission
BPL	Bureau of Parks and Lands
COE	US Army Corps of Engineers
CZMA	Coastal Zone Management Act
DACF	Department of Agriculture, Conservation and Forestry
DEP	Department of Environmental Protection
DIFW	Department of Inland Fisheries and Wildlife
DMR	Department of Marine Resources
FERC	Federal Energy Regulatory Commission
FONSI	Finding of No Significant Impact
LUPC	Land Use Planning Commission
MESA	Maine Endangered Species Act
MHK	Marine hydrokinetic
MHPC	Maine Historic Preservation Commission
MOU	Memorandum of Understanding
MSZA	Mandatory Shoreline Zoning Act
MWDCA	Maine Waterway Development & Conservation Act
NOI	Notice of Intent
OETF	Ocean Energy Task Force
PUC	Public Utilities Commission
WQC	Water Quality Certification

[4] This MOU was the first of its kind on the East Coast; FERC has signed two similar agreements with Oregon and Washington.
[5] https://www.maine.gov/dmr/mcp/downloads/finalreport_123109.pdf.

9.4 Summary Table of Maine Authorizations

Authorization/Review	Primary Legal Authority	Lead Agency	Anticipated Process Time
Maine Waterway Development & Conservation Act Permit	Maine Waterway Development and Conservation Act	Department of Environmental Protection or Land Use Planning Commission	Up to 12 months
General Permit for Tidal Energy Demonstration Project		Department of Environmental Protection	2 months
Maine Endangered Species Act Review	Maine Endangered Species Act	Department of Marine Resources and/or Department of Inland Fisheries & Wildlife	4½ months
§ 401 Water Quality Certification	Federal Clean Water Act § 401	Department of Environmental Protection or Land Use Planning Commission	Up to 1 year
CZMA Federal Consistency Determination	Coastal Zone Management Act, Coastal Management Policies Act	Department of Agriculture, Conservation and Forestry, Planning	Up to 6 months
Submerged Lands Lease	Submerged Lands Law 12 MRSA §§ 1861-1867	Department of Agriculture, Conservation and Forestry, Bureau of Parks and Lands	2 months
Historic Review	27 MRSA §§ 501-503	Maine Historical Preservation Commission	3 months
Mandatory Shoreland Zoning Act Permit	Mandatory Shoreland Zoning Act 38 MRSA §§ 435-449	Municipality, Department of Environmental Protection	35 working days from receipt of complete application

9.5 Maine Waterway Development and Conservation Act

Pursuant to the MWDCA, a permit is required for the construction, reconstruction, or structural alteration of hydropower projects, including hydrokinetic facilities. The MWDCA establishes a single application and coordinated process that streamlines permitting procedures by incorporating the requirements of multiple authorizations into one comprehensive review. To ensure that the proposed project still complies with all statutory requirements, certain conditions may be attached to the MWDCA permit.

Lead Agency: DEP is responsible for any proposed project that uses tidal action as a source of power, regardless of location. For non-tidal power projects in organized municipalities, the permitting process is administered by DEP, and the Land Use Planning Commission (LUPC) administers the permitting process for non-tidal power projects in unorganized territories.[6]

Review Process: Once an application is deemed complete, it is accepted for processing.[7] DEP and LUPC both have review standards for evaluating potential effects on wildlife, habitat, wetlands, scenic, and other natural resources values, although there are some differences in the agencies' specific review criteria and decision-making procedures.[8] Once submitted, the application is circulated among various state agencies and DEP's Division of Environmental Assessment. The agencies are asked to review and comment on the application, taking into

[6] Since DEP's jurisdiction is within the organized areas of the state (i.e., within the boundaries of a municipality), a proposed project's location relative to municipal boundaries extending onto state submerged lands may determine whether a project is subject to DEP or LUPC jurisdiction.
[7] If additional information is required for a hydropower project that has been or is being filed with FERC, the FERC filing information may be submitted to completely or partially fulfill these information requirements.
[8] Because each individual project is different, applicants are advised to consult with staff of the lead agency prior to submitting an application.

consideration the full range of economic, environmental, and energy benefits and adverse impacts of a proposed project. Municipal officials, abutting landowners, and members of the general public are also given an opportunity to comment on the application.

Under the MWDCA, DEP or LUPC must find that (1) an applicant has made adequate provisions for financial capability and technical ability, public safety and traffic movement, and for mitigating adverse environmental impacts; (2) water quality standards[9] will be met; and (3) the advantages of the project are greater than the direct and cumulative adverse impacts of the project based on considerations of the benefits or harm of the project to wetlands, soil stability, fish and wildlife resources, historic and archaeological resources, public rights of access and use of surface waters, flooding, and power generation.[10] Applications may be approved, disapproved, or scheduled for hearing. If a hearing is held, the application will be approved or disapproved after conclusion of the hearing.

Process Time: For a tidal power demonstration project, DEP makes a decision within 60 days of FERC issuing a Finding of No Significant Impact (FONSI). For other hydropower projects, DEP makes a decision within one year of accepting the application.

Legal Authority: Maine Waterway Development & Conservation Act (38 MRSA §§ 630 to 636; 640).

9.6 General Permit for Tidal Energy Demonstration Project

Tidal energy demonstration projects are defined as hydropower projects that use tidal action as a source of electrical power, have a total installed generating capacity of 5 MW or less, and are proposed for the primary purpose of testing tidal energy generation technology (including mooring, anchoring, and transmission lines), as well as collecting and assessing information on the environmental and other effects of the technology. The General Permit process for tidal energy demonstration projects is designed to interface with FERC pilot project licensing procedures.

Similar to the MWDCA Permit process, the General Permit process streamlines permitting for tidal energy demonstration projects by incorporating requirements of other relevant authorizations into its review process. Also, DEP includes the requirements for a Submerged Lands Lease in its review and will issue a lease for the permitted activity within 30 days of issuing a General Permit. DEP also coordinates its review of MHK projects with FERC and the other federal resource agencies. It is important for applicants to involve DEP as early as possible in the review process so there is no unnecessary overlap between federal and state processes.

Lead Agency: DEP is the lead agency for all hydrokinetic projects that use tidal action as a source of power, regardless of location.[11]

Information Requirements: Along with the application to DEP, project proponents must provide written evidence that the applicant has submitted an application to FERC for a pilot project license, a copy of the FERC license application, and a copy of the environmental assessment issued by FERC that includes a FONSI pursuant to National Environmental Policy Act (NEPA). Although this is when the formal process for DEP review begins, according the MWDCA, DEP emphasizes that applicants should involve DEP as soon as they are thinking about applying for a FERC preliminary permit.

Applicants must also provide a description of the waters of the State in which the proposed project would be located, a description of the project facilities, and information regarding the physical environment and anticipated environmental effects of the proposed project.

Applicants must also submit plans for monitoring the environmental effects of the project, plans for safeguarding the public and environmental resources, and a plan for removing the project after the termination of the General

[9] Please refer to the State`s Water Classification Program (38 MRSA §§ 464-470) for a description of the applicable water quality standards and the classification of all waters of the State.
[10] DEP has issued rules that further detail the statute's requirements (see DEP rules Chapter 450).
[11] Likewise, DEP is the water quality certifying agency for all activities including the licensing and relicensing of existing hydropower projects.

Permit.[12] Finally, the application should include documentation that the applicant has consulted with the appropriate local, state, and federal resource agencies, as well as local governments, Indian tribes, non-governmental organizations and members of the public likely to be interested in the project.

Review Process: Applications should be filed with DEP. At least 30 days prior to filing an application, applicants must publish a Notice of Intent (NOI) to file in newspapers circulated in the areas near the project site, and they must send a copy of the NOI to adjacent land owners. An application for a General Permit will be accepted for processing only after the issuance by FERC of an environmental assessment for the proposed pilot project that includes a "finding of no significant impact" pursuant to NEPA.

After reviewing all application materials, supporting documentation, and agency comments, DEP makes a decision as to whether or not the requirements for issuance of a General Permit under the MWDCA have been met. A General Permit is valid for the term of the FERC pilot project license issued for the project. DEP may grant one or more extensions of the General Permit term to coincide with any approved extension of the term of the pilot project license issued by FERC.

Process Time: Within 60 days of accepting the application for processing, DEP will make a decision as to whether or not a General Permit will be issued. If DEP determines that the authorization requirements have not been met, it will notify the applicant in writing. If DEP does not notify the applicant within this time period, a General Permit is deemed to have been granted.

Legal Authority: Maine Waterway Development & Conservation Act (38 MRSA § 636-A).

9.7 Maine Endangered Species Act Review

The Maine Endangered Species Act (MESA) prohibits the taking[13] of species included on the State endangered or threatened species list. The law does provide for an "incidental take" permit for activities, otherwise permitted, that may result in an incidental taking.[14]

Lead Agency: When reviewing applications for proposed projects, DEP must review and consider potential impacts to species listed as endangered or threatened under the MESA. In Maine, management of species listed as threatened or endangered under the MESA is shared between DIFW and the DMR.[15] DEP seeks input and considers recommendations from both DMR and DIFW regarding potential impacts to endangered or threatened species.

Review Process: In the course of the state's permitting process, DMR and DIFW work, in cooperation with DEP, to identify the potential impacts to wildlife as a result of proposed projects. DMR and DIFW may also submit comments and study requests to state and federal agencies (e.g., US Army Corps of Engineers [COE]) involved in permitting a project; further, these agencies may include terms and conditions to ensure protection of endangered and threatened species and their critical habitat.

Process Time: Varies; reviews will typically coincide with the federal Endangered Species Act review for a proposed project, which takes at least 4.5 months.

Legal Authority: Maine Endangered Species Act 12 MRSA sections 12801-12809 [inland species]; 12 MRSA sections 6971-6977 [marine species].

9.8 Clean Water Act Section 401 Water Quality Certification

The purpose of Coastal Zone Management Act (CWA) Section 401 is to ensure that no federal license or permit authorizes an activity that would violate the state's water quality standards or become a future source of pollution. A

[12] Typically, a General Permit will require that the project be removed, and the site restored to its original condition, unless the applicant intends on using the same pilot project site for future commercial site. Otherwise, the applicant must initiate the project removal plan within 60 days of expiration of the General Permit.
[13] The term "take" is broadly defined to include habitat alteration as well as more direct harm to protected species.
[14] By definition, each of these species is also listed as threatened or endangered under the federal Endangered Species Act. Therefore, while states take provisions do not apply to marine listed species, the federal ESA's incidental take provisions do cover these species.
[15] Most inland endangered or threatened species fall under the jurisdiction of DIFW, as do certain seabirds and shorebirds. Marine species on the State's threatened and endangered list fall under the jurisdiction of DMR.

Section 401 WQC covers construction, operation, maintenance and decommissioning of a proposed project, and conditions of the WQC become conditions of the federal license or permit. All aspects of the project, including energy production devices and any cables in, on, or under state waters (including wetlands) are considered in the review.

Hydrokinetic projects will likely require a Section 404 Permit and a FERC license, both of which require WQC. Applicants for a FERC license must complete a three-stage consultation process with the relevant state and federal agencies. The purpose of this process is to identify and analyze the potential environmental and socioeconomic impacts of a project. The consultation process requires applicants to have either requested or obtained WQC at the time of filing its license application with FERC, and it requires that an applicant provide a copy of its FERC license application, including any revisions, supplements or amendments, to each of the agencies consulted.

Lead Agency: DEP issues WQCs for MHK projects. DEP and LUPC have a "memorandum of agreement" providing for cooperation on WQC reviews. The agencies cooperate by sharing copies of applications, requesting and providing comments to each other, and offering recommendations as to the issuance, denial or waiver of WQC for the proposed activity.

Review Process: Along with the form,[16] project proponents must submit various supporting documents, studies and reports, as well as the appropriate fees. When an application is deemed complete, the official Section 401 review begins. Applications are reviewed to assess the impacts on water quality and designated uses, as well as the consistency of the activity with applicable water quality standards. Wherever possible, DEP combines decision-making for WQC with its review of state permits that require compliance with state water quality standards so that project approval constitutes both the state permit and the WQC. The MWDCA permit decision also serves as a component of the WQC decision.

Certification is issued if the proposed project will comply with state and federal water quality standards and requirements. Terms, conditions, management practices, and operations and maintenance requirements may be imposed to mitigate potential impacts.

Denial is issued if the project will not comply with water quality standards or with procedural requirements. If certification is denied, the federal authorization cannot be issued.

Process Time: Based on the *Hoopa* decision, a WQC determination must be made within one year.[17] For demonstration tidal projects, Maine will take action within 60 days of application for processing.[18]

Legal Authority: Section 401 Clean Water Act.

9.9 Coastal Zone Management Act Federal Consistency Determination

In the Coastal Zone Management Act (CZMA), Congress created a federal-state partnership for management of coastal resources. Section 307 of the CZMA requires that federally licensed or permitted activities[19] be consistent with state coastal management policies (e.g., land use planning statutes, marine spatial planning, and water quality standards).[20] A consistency determination is the process used to implement this requirement for federal permits and licenses. Hydrokinetic projects will likely require a Section 404 Permit, a Section 10 Permit, and/or a FERC license, all of which require a consistency review.

The Maine Coastal Program[21] is a partnership among local, regional, and state agencies wherein no one agency or department is responsible for the entire coast; rather, a networked approach is used to manage Maine's coastal

[16] http://www.maine.gov/dep/water/permits/index.html.
[17] https://www.environmentallawandpolicy.com/2019/01/d-c-circuit-strikes-withdraw-resubmit-practice-state-quality-certifications/.
[18] Pursuant to the State's August 19, 2009, MOU with FERC.
[19] A federal license or permit includes any authorization, certification, approval, or other form of permission that any federal agency is empowered to issue to an applicant. 15 CFR § 930.51.
[20] The federal consistency review requirements and procedures are detailed in 15 CFR § 930.
[21] The Maine Coastal Program has prepared a guide to the federal consistency review process. https://www.maine.gov/dmr/mcp/downloads/Final_Maine_Guide-Federal_Consistency_Review_5thed.6.17_12.15.17.pdf.

resources. DEP, LUPC, and other state agencies in the networked coastal program review proposed projects and make findings and conclusions that serve as the basis for the state's consistency decision.

Most federal activities occurring within the coastal zone are evaluated for consistency under the same standards and procedures used to evaluate state license and permit applications. To the extent practicable, the State implements its federal consistency review authority through pertinent license and permit reviews under these core laws.

Lead Agency: Since the enforceable policies for the coastal program consist of various laws and regulations administered by different state agencies and municipalities, the DACF Planning serves as the point of contact and coordinator for the federal consistency review process. DACF Planning serves as a single point of contact to receive requests for reviews and to communicate with federal agencies and the public on consistency review issues and decisions.

Review Process: In reviewing the certification and supporting data and information, agencies make consistency findings based on the enforceable policies of the State. The initial step is for the project proponent to contact the federal consistency coordinator at DACF to inform the State of the proposed action. This early coordination helps determine the scope of the review.

In their federal license and permit applications, applicants must include a certification that the proposed activity complies with and will be conducted in a manner consistent with the enforceable policies of the Maine Coastal Program. This certification, along with the information in the federal authorization application(s) and pertinent state and local permit applications, constitute the necessary data for consistency review.

To expedite review and approval, applicants should provide all the necessary data and information in their federal, state, and local permit applications. The lead state agency (typically DEP) reviews the applicant's submission for completeness and notifies the applicant and federal agency within 30 days whether all necessary data and information has been provided.[22]

If the applicant receives the applicable licenses and permits within six months of submitting the consistency certification, the proposed activity is deemed consistent with the enforceable policies of the Maine Coastal Program. Alternatively, DACF may respond directly to the permit applicant and/or federal agency that the State concurs that the proposed activity is consistent with the Maine Coastal Program. In some instances, the State may condition its concurrence on receipt of all applicable permits.

If the State objects to an applicant's consistency determination, DACF must notify the applicant with an objection letter within six months from the State's receipt of a complete consistency review request, or within the period agreed to by stay.[23] The objection letter must describe how the activity is inconsistent with specific enforceable policies and may describe alternative measures (if any exist) that would allow the project to be conducted in a manner consistent with the enforceable policies.[24] If the State objects to the consistency certification, the federal agency cannot issue the license or permit.[25]

For more detailed information on filing procedures, information requirements, and public comment opportunities, applicants may contact DACF, Planning, directly.

Process Time: Generally, a decision is issued within six months from receipt of a complete request; however, the process may be prolonged if the State and the applicant agree to extend the time period with a stay.

Legal Authority: Coastal Zone Management Act (16 USC 1451 et seq. 15 CFR 930); Coastal Management Policies Act (38 MRSA § 1801).

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[22] The six-month review period begins on the date of notice of the consistency certification or, if the State indicates within 30 days that all necessary data and information has not been received, on receipt of all data and information identified as necessary to begin the consistency review. The lead review agency may request additional information during the review period.
[23] The State and applicant may agree in writing to stay the 6-month review period for a specified period of time to accommodate review of complex permits.
[24] The letter must also notify the applicant of its right to appeal the State's objection to the Secretary of Commerce, who may override the State's objection if the Secretary finds that the project is consistent with the objectives of the CZMA or is otherwise necessary in the interest of national security. If the State does not object to the certification within six months from receipt of a complete request, the project is deemed consistent.
[25] Unless the Secretary of Commerce overrides the State's objection pursuant to 15 CFR Part 930, Subpart H.

9.10 Submerged Lands Lease

Proposed projects that would be located in, on or under state-owned submerged lands[26] must obtain a lease or an easement. A lease or easement would be required for placement of wave or tidal energy devices and related transmission lines within state-owned submerged lands. The size and nature of the project determines whether a lease, subject to an annual rental fee, or an easement, subject to a registration fee, is required.

A standard lease or easement may be granted for a maximum of 30 years and may be renewed. Further, leases may be granted for projects which will be constructed in distinct phases; application review for phased projects will consider the entire, completed project, but the areas, rental fees and dates for the lease will reflect the project phases. In all cases, structures for which a lease or easement has been issued must be placed on the conveyed premises within two years of the issuance of the lease or easement.

Lead Agency: Leases and easements for submerged lands of the State are administered by BPL.

Review Process: Project proponents must first make a written request for a lease or easement to BPL, which then sends a Submerged Lands Application to the project proponent.[27] Along with the appropriate form, applicants should include a description of the proposed project, a detailed site plan that provides for accurate determination of the area of Submerged Lands to be occupied by the project, and proof of right, title or interest in adjacent shoreland property.

BPL will notify interested parties when it receives a completed application. Interested parties may include abutting landowners, local municipal officials, planning boards, and harbor masters, local commercial fishermen or others engaged in commercial marine activities, and others who have notified BPL of their interest in a particular project. Additionally, there is a 30-day period during which any party may provide comments pertaining to the application.[28]

BPL seeks expert advice regarding potential impacts from state and federal agencies such as DMR, DEP, DACF, and COE, and may request additional information from the applicant, government agencies, or other parties as necessary to complete its review and make a decision. In making leasing decisions, BPL considers a proposed project's potential effects on traditional public access ways or public trust rights[29] in, on, or over state-owned submerged lands.

To protect and/or compensate[30] for loss of public trust resources, BPL may place certain conditions on the lease or easement. For example, projects may be required to include navigational improvements; publicly accessible space for fishing, sight-seeing, waterfowl hunting, or recreation; and/or protection of important commercial fishing and water-dependent activities.

Process Time: Within 60 working days of receipt of a completed application, BPL reviews the materials and issues Preliminary Findings. However, this time period is subject to extension in cases where the issues are complex and additional information or studies are necessary. For tidal energy demonstration projects, within 30 days of receiving notice and a copy of a General Permit issued by DEP, BPL issues a Submerged Lands Lease. The term of the lease must be consistent with that of the General Permit, and any conditions included cannot be more stringent that those contained in the permit and may not frustrate achievement of the purpose of the project.[31]

Legal Authority: 12 MRSA sections 1801 and 1862-1867.

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[26] Submerged lands encompass the areas from mean low water to the three-mile limit of the State's Territorial Sea.
[27] Forms are available from the Submerged Lands Program https://www.maine.gov/dacf/parks/about/submerged_lands.shtml.
[28] Any interested party may request an extension of this date if sufficient need for such an extension is demonstrated. Further, if public notice is not otherwise required of the applicant for other project authorizations, the applicant may be required to give public notice of the lease application.
[29] Public trust rights include fishing, waterfowl hunting, navigation, and recreation; and/or services and facilities for commercial marine activities.
[30] Under its current authority, BPL has indicated that it intends to consider lease fees, compensation, and related matters regarding offshore renewable energy development on a case-by-case basis. BPL has also indicated that it is considering proposed legislation to further clarify this authority.
[31] § B-1. 12 MRSA § 1862, sub-§ 2, ¶F.

9.11 Historic Properties Review

If a project site includes, or is adjacent to, properties with buildings or structures over 50 years of age, or is in an archaeologically sensitive area, including potentially archaeological resources that are beneath coastal waters, then the authorizing agency should consult with MHPC regarding the information and/or conditions necessary to protect the archaeologically or historically significant resources.

Lead Agency: MHPC consults as necessary to assess the effects of projects on resources listed in, or eligible for listing in, the National Register of Historic Places. The goal of this review process is to identify significant cultural resources and avoid or minimize adverse effects to them.

Review Process: The project proponent or the authorizing agency generally notifies MHPC about the project and provides information for review. MHPC responds to requests for review within 30 days of receipt of notice with either a request for additional information or a finding of how the undertaking or project will affect historic properties.

If historic properties are identified or determined likely to exist, MHPC may request additional project information and/or archaeological or architectural surveys in order to assess the ultimate effects of the project upon such properties. For example, if a project is proposed in an archaeologically sensitive area, MHPC may request an archaeological survey to determine whether the project is likely to disturb archaeological sites. If it is determined that a project will result in an adverse effect to a historic property, MHPC consults with the project proponent on ways to avoid, minimize or mitigate the effects.

Process Time: The process can last from a few days to several months depending on whether there are significant cultural resources in the project area, the scope of the project, the agency's or applicant's efficiency in providing information to MHPC, and MHPC's work load. In most cases, submission of all of the relevant information will result in completion of the review process in less than 30 days.

Legal Authority: 27 MRSA sections 501-503.

9.12 Mandatory Shoreline Zoning Act

The Mandatory Shoreland Zoning Act (MSZA) focuses on shoreland areas near coastal areas, wetlands, great ponds, rivers, and larger streams. MSZA helps prevent and control water pollution; protect fish spawning grounds, bird and wildlife habitat; protect buildings and lands from flooding and accelerated erosion; protect archaeological[32] and historic resources; protect commercial fishing and maritime industries; protect freshwater and coastal wetlands; control building sites, placement of structures and land uses; conserve shore cover, and visual as well as actual points of access to inland and coastal waters; conserve natural beauty and open space; and anticipate and respond to the impacts of development in shoreland areas.

MSZA requires municipalities to protect shoreland areas through adopting shoreland zoning maps and ordinances that provide for the types of activities that may occur in certain areas.[33] The Act also gives municipalities authority to regulate land-based structures that extend over and onto state-owned submerged lands. For hydrokinetic projects, transfer stations and transmission cables may be subject to MSZA in areas where cables make landfall and the power is transferred to the electric grid.

[32] A permit is not required for an archaeological excavation if the excavation is conducted by an archaeologist listed on the SHPO's level 1 or level 2 approved lists, and unreasonable erosion and sedimentation is prevented by means of adequate and timely stabilization measures.

[33] The shoreland areas covered by the law include areas within 250 of the normal high-water line of any great pond, river or saltwater body, areas within 250 feet of the upland edge of a coastal wetland, areas within 250 feet of the upland edge of non-forested freshwater wetlands ten or more acres in size, and areas within 75 feet of the high-water line of a stream.

Lead Agency: Municipalities are primarily responsible for administering the law but are subject to DEP oversight. DEP's role is to provide technical assistance in the adoption, administration, and enforcement of these local ordinances. DEP has a Shoreland Zoning Unit to assist municipalities and citizens in enforcing and complying with MSZA.[34]

Review Process: Project proponents should submit a written application, including a scaled site plan, to the appropriate official on the provided form. Within 35 days of the date of receiving a written application, the Planning Board or Code Enforcement Officer notifies the applicant either that the application is a complete, or, if it is incomplete, that specified additional material is needed to complete the application. The application will be reviewed to determine if the proposed project is in conformance with the purposes and provisions of MSZA. If substantial progress is not made in construction or in the use of the property within one year of issuing a permit, the permit expires. If a substantial start is made within one year of issuance of the permit, then the applicant has one additional year to complete construction of the project, at which time the permit expires.

Process Time: The Planning Board or the Code Enforcement Officer approves, approves with conditions, or denies all permit applications within 35 days of receiving a completed application. However, if there is a waiting list of applications, a decision on the application occurs within 35 days after the first available date on the Planning Board's agenda following receipt of the completed application, or within 35 days of the public hearing.

Legal Authority: 38 MRSA, sections 435-449.

9.13 Other Relevant Agencies and Laws in Maine

In addition to the authorizations identified above, siting hydrokinetic projects in Maine involves various other relevant authorities.

Projects proposed in areas under LUPC jurisdiction must be consistent with the zoning adopted by LUPC for that area. If the proposed project is a prohibited use under LUPC's zoning designation and standards in effect at the time of consideration, the applicant must either amend the project to avoid conflicts with the zoning, or file and gain approval from LUPC via a rezoning petition.

Some projects may also fall under the jurisdiction of the Maine Public Utilities Commission (PUC), which regulates electric, natural gas, telecommunications and water utilities in the state. PUC approval, through issuance of its Certificate of Public Convenience and Necessity, is required for utilities to construct transmission lines of 69 kV or more in all areas of the state. PUC approval is not required for the construction of electric generating facilities. However, utility-owned power lines built to connect a project to the grid, known as "generator leads," do require PUC approval. A generator lead does not require separate PUC approval if a utility builds and owns a transmission line for the purpose of connecting a generator lead to the grid, and this utility connector line is approved by the PUC.[35] As such, the Certificate of Public Necessity is not included in this chapter.[36]

Another agency that may be involved in project siting is the Atlantic Salmon Commission (ASC), the mission of which is to protect, conserve, restore, manage and enhance Atlantic salmon habitat, populations and sport fisheries within historical habitat in all (inland and tidal) waters of the State of Maine. ASC is part of DMR's Bureau of Sea-run Fish and Habitat. ASC will likely be involved in project reviews to assist in assessing potential impacts to salmon populations and their habitats.

Finally, town ordinances may require hydrokinetic projects to obtain a local land use approval for shore-based facilities. Obtaining this approval may involve a zoning variance or other project-specific approval. Project proponent should be aware that there is not uniformity in how local jurisdiction within municipal boundaries interface with state jurisdiction of submerged lands that are within the municipality. Further, in some cases, municipal boundaries may be ambiguous or inconsistent with the boundaries of adjacent municipalities.

[34] Contact information for the DEP Shoreland Zoning Unit is available at https://www.maine.gov/dep/land/slz/.
[35] See P.L. 2007, ch. 148 § 2 (enacting 35-A MRSA § 3132, sub-§ 1-B).
[36] Municipal and/or state land use approval of the transmission line may also be required under other authorities, including but not limited to those described in this chapter.

9.14 Maine Agency Contact Information

Agency	Web Address	Mailing Address	City	State	Zip	Phone
Department of Environmental Protection	https://www.maine.gov/dep/	17 State House Station 28 Tyson Drive	Augusta	ME	04333-0017	207.287.7688
Department of Agriculture, Conservation and Forestry, Land Use Planning Commission	https://www.maine.gov/dacf/lupc/about/index.shtml	22 State House Station 18 Elkins Lane	Augusta	ME	04333-0022	207.287.2631
Department of Agriculture, Conservation and Forestry, Bureau of Parks and Lands	https://www.maine.gov/DACF/parks/index.shtml	22 State House Station 18 Elkins Lane	Augusta	ME	04333-0022	207.287.3200
Historic Preservation Commission	https://www.maine.gov/mhpc/	65 State House Station 55 Capitol St.	Augusta	ME	04333-0065	207.287.2132
Department of Agriculture, Conservation and Forestry, Planning	https://www.maine.gov/dacf/planning/index.html	22 State House Station 18 Elkins Lane	Augusta	ME	04333-0022	207.287.3200
Department of Inland Fisheries and Wildlife	https://www.maine.gov/ifw/	41 State House Station 284 State St.	Augusta	ME	04333-0041	207.287.8000
Department of Marine Resources	https://www.maine.gov/dmr/	21 State House Station 32 Blossom Lane	Augusta	ME	04333-0021	207.624.6550

10 Massachusetts

10.1 Introduction to Massachusetts Agencies and Authorizations

With the variety of natural and economic resources tied to the marine environment in Massachusetts, the State has several different statutes and regulations to protect and manage these resources. Numerous factors must be considered when selecting a site for a hydrokinetic facility, including fisheries, Areas of Critical Environmental Concern (ACEC), coastal wetlands restrictions, floodplains, barrier beaches, endangered species, underwater archaeological resources, historic properties, and Municipal Harbor Plans.[1] The principal authorizations required for constructing and operating a hydrokinetic facility in Massachusetts are listed in the table on the following page, and each is explained in detail later in the chapter. In addition to the authorities in this chapter, local agencies and officials may be involved, particularly in cases where state statutes are implemented locally.[2]

The construction of major energy production, transmission, or storage facilities[3] must be approved by the Massachusetts Energy Facilities Siting Board. Approval from the Siting Board is also required for new electric transmission lines of certain lengths and design ratings.[4] A number of other state agencies also have responsibilities in connection with the regulation and development of energy facilities.

For example, proposed projects that meet or exceed certain environmental thresholds and require state environmental permits must be reviewed under the Massachusetts Environmental Policy Act (MEPA). This review provides an opportunity for resource agencies and the public to comment on a proposed project and address any environmental concerns and permitting issues during the planning stage. Project proponents should also be aware of ACECs, which are complexes of natural resources that have been judged to be of statewide significance. Any project proposed in an ACEC is subject to heightened environmental performance standards.

Concurrent with or soon after the MEPA review, a project proponent should apply for an Order of Conditions with the town or city's Conservation Commission to ensure compliance with the Massachusetts Wetlands Protection Act, the Rivers Protections Act, and any applicable local wetland protection bylaws. These regulations require certain performance standards to ensure that construction methods will avoid or minimize and mitigate damage to wetlands resources. Further, if a proposed project is sited near or within mapped habitat of state or federally listed threatened and endangered species, a review under the Massachusetts Endangered Species Act may be necessary. State fishery regulations must also be considered.

Project construction for hydrokinetic facilities will likely involve dredging to install the subsea transmission line. In addition to a CWA Section 404 Permit from US Army Corps of Engineers (COE), a Chapter 91 license is required from the Massachusetts Department of Environmental Protection (DEP) for dredging and placement of structures in tidal lands of the Commonwealth. Further, to ensure that dredging will not adversely affect water quality, a CWA Section 401 WQC is required from DEP. Additionally, any project that is federally authorized or funded must undergo a federal CZMA consistency review to ensure that it is consistent with the policies and provisions of the Massachusetts Coastal Zone Management Plan. Finally, a Historic Properties Review and/or an Underwater Archaeological Survey Permit may be necessary.

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[1] The Office of Coastal Zone Management has a guide, "Environmental Permitting in Massachusetts," that provides detailed information about the State's permitting processes. https://www.mass.gov/service-details/environmental-permitting-in-massachusetts.

[2] Project proponents should inquire with the appropriate municipalities regarding local permitting requirements. The Wetlands Protection Act is one such state statute implemented at the local level.

[3] In this context, "facility" means any generating unit designed for or capable of operating at a gross capacity of 100 MW or more, including associated buildings, ancillary structures, transmission and pipeline interconnections that are not otherwise facilities.

[4] Siting Board approval is required for (1) new electric transmission lines that have a design rating of 69 kV or greater and are one mile or greater in length; and (2) new electric transmission lines that have a design rating of 115 kV or more and are ten miles or more in length on an existing transmission corridor (except reconductoring or rebuilding of transmission lines at the same voltage).

10.2 Massachusetts Ocean Management Plan

The Massachusetts Ocean Management Plan, released in 2010, functions to translate the policy direction and specific requirements of the Oceans Act of 2008 into a comprehensive management approach that can be implemented through existing state programs and regulations. The Oceans Act allows for appropriate-scaled renewable energy development in ocean waters as long as it is consistent with the management measures detailed in the Ocean Management Plan. Specific requirements in the Oceans Act correspond directly to Ocean Management Plan policies related to ocean renewable energy.

The Oceans Act stipulates that the Ocean Management Plan be implemented through existing state review procedures, with all licenses, permits, and leases required to be consistent to the maximum extent practicable with the plan. The Ocean Management Plan is implemented in large part through the Massachusetts CZMA federal consistency determination process. In 2011, NOAA approved the updated Massachusetts Coastal Management Program, which officially incorporates the Ocean Management Plan into the state's Coastal Zone Management (CZM) Program.

The Oceans Act directs the Ocean Management Plan to establish management areas within the ocean planning area. The Ocean Management Plan establishes three different management areas:

Prohibited Area: Most uses, activities and facilities, including those associated with the generation, transmission, and distribution of electric power, are expressly prohibited in this area, which is managed under the same policies as the Cape Cod Ocean Sanctuary.

Renewable Energy Area: Only commercial- and community-scale wind energy development is explicitly allowed in these areas.

Multi-Use Area: This area comprises the vast majority of the planning area and is open to all uses, activities and facilities allowed under the Ocean Sanctuaries Act. Community-scale wind energy facilities of appropriate scale, wave and tidal energy facilities of appropriate scale, cables and pipelines, aquaculture, and extraction of sand and gravel for beach nourishment are examples of activities that may be allowed in this area. The Multi-Use Area is not managed by spatial designation, but by standards associated with mapped resources and uses that direct development away from high value resources and concentrations of existing water-dependent uses. The susceptibility of each resource to new uses, activities and facilities was determined and ranked through compatibility assessments. Similarly, management guidance for balancing impacts to commercial and recreation fishing and recreational boating was developed and the compatibility of these uses with new uses was assessed.

The Oceans Act directs the Massachusetts Office of Coastal Zone Management to establish performance standards for development within the ocean planning areas. The Ocean Management Plan's siting and performance standards are implemented both in the MEPA process and in individual Massachusetts agency permitting through the administration of specific statutory and regulatory rules and conditions. In addition, the application of siting and performance standards to specific uses, activities and facilities in the Multi-Use Area establishes a higher level of protection for Special, Sensitive or Unique (SSU) resources. The Ocean Management Plan also identifies and maps those resources, providing clear baseline information that allows proponents, agency staff, and the public to focus on aspects of a given project of greatest potential environmental significance.

The spatial information that was incorporated into the final Ocean Management Plan is now available in the Massachusetts Ocean Resource Information System (MORIS) CZM online mapping tool. MORIS presents all the data layers featured in the final plan maps, with each layer symbolized to match the hardcopy and PDF versions of the maps. In addition, users have the ability to read the metadata that accompanies each layer and combine data layers with other CZM and Massachusetts Office of Geographic and Environmental Information (MassGIS) data to create customized maps. The layers can also be downloaded as industry standard ESRI shapefiles.

The Oceans Act requires that the Ocean Management Plan be reviewed every five years and updated as necessary. The first update was published in 2015. In spite of limited tidal and wave energy resources capable of providing sufficient economically viable renewable energy in Massachusetts waters, the 2015 ocean plan supports continued work on the planning and analysis of potential tidal energy projects, if and when these should be proposed. Since 2009, no tidal energy projects have been implemented in Massachusetts waters.

Regulations that govern the provisions laid out in the Ocean Management Plan were developed and published in 301 CMR 28.[5]

10.3 List of Massachusetts Acronyms

ACEC	Area of Critical Environmental Concern
COE	US Army Corps of Engineers
CZM	Coastal Zone Management
DEP	Department of Environmental Protection
DMF	Division of Marine Fisheries
DPU	Department of Public Utilities
EIR	Environmental Impact Report
ENF	Environmental Notification Form
MassGIS	Massachusetts Office of Geographic and Environmental Information
MEPA	Massachusetts Environmental Policy Act
MESA	Massachusetts Endangered Species Act
MORIS	Massachusetts Ocean Resource Information System
NHESP	Natural Heritage and Endangered Species Program
NOI	Notice of Intent
OOC	Order of Conditions
RPA	Rivers Protection Act
SOOC	Superseding Order of Conditions
WPA	Wetlands Protection Act

10.4 Summary Table of Massachusetts Authorizations

Authorization/Review	Primary Legal Authority	Lead Agency	Anticipated Process Time
Energy Facilities Siting Board Approval	980 CMR; M.G.L. c. 164, § 69H	Energy Facilities Siting Board	Varies; generally, at least 1 year
Massachusetts Environmental Policy Act Certificate	Massachusetts Environmental Policy Act	Massachusetts Environmental Policy Act Unit	Varies; generally, at least 1 year
Massachusetts Endangered Species Act Review	Massachusetts Endangered Species Act	Natural Heritage & Endangered Species Program	1 month from receipt of complete request
Order of Conditions	Massachusetts Wetlands Protection Act	Local Conservation Commission and DEP-Wetlands and Waterways Program	1 month from receipt of complete application
§ 401 Water Quality Certification	MA Clean Water Act; Surface Water Quality Standards; CWA § 401	DEP - Wetlands and Waterways Program	Up to 1 year
State Fisheries Recommendations	M.G.L. c. 21, § 5, and c. 130, §§ 1-104: Marine Fisheries; 322 CMR 2.00 *et seq*.: Marine Fisheries Regulations	DEP and Division of Marine Fisheries	Up to 12 months[6]
Chapter 91 Waterways License or Permit	M.G.L c. 91 Public Waterfront Act; 310 CMR 9.00 Waterway Regulations	DEP - Wetlands and Waterways Program	At least 3 to 6 months from receipt of complete application

[5] https://www.mass.gov/files/documents/2016/08/re/301-cmr-28.pdf.
[6] This review occurs within CWA § 401 WQC review process; recommendations are issued concurrently with the § 401 WQC.

Authorization/Review	Primary Legal Authority	Lead Agency	Anticipated Process Time
CZMA Federal Consistency Determination	CZMA § 307; Massachusetts Coastal Zone Management Act	Massachusetts Office of Coastal Zone Management	Up to 6 months
Underwater Archaeological Survey Permit	M.G.L. c. 6, §§ 179 & 180: 312 CMR 2.00:	Board of Underwater Archaeological Resources	1 week
Historic Properties Review	Historic District Act	Massachusetts Historical Commission	At least 2 months

10.5 Energy Facilities Siting Board Approval

The Siting Board is an independent state review board located within the Massachusetts Department of Public Utilities (DPU). Board members include the Secretary of Energy and Environmental Affairs, the Secretary of Housing and Economic Development, the Commissioner of the Department of Environmental Protection, the Commissioner of the Division of Energy Resources, two Commissioners from the DPU, and three public members appointed by the Governor.

The primary function of the Siting Board is to license the construction of major energy infrastructure in Massachusetts, including large electric power plants (100 MW or more), as well as new electric transmission lines.[7] The Siting Board's jurisdiction includes new electric transmission lines of 69 kilovolts or more with a length of at least one mile on a new transmission corridor, as well as any new electric transmission lines of 115 kilovolts or more on an existing transmission corridor that is ten miles or greater in length.[8] The Siting Board also is responsible for coordinating the permitting and licensing of hydropower projects in Massachusetts.

The Siting Board's review of proposed electric generating plants and transmission lines focuses on environmental impacts and mitigation measures. Alternatives to a proposed facility, such as alternate routes for transmission line projects, may also be considered. The Siting Board uses an adjudicatory process which consists of three main phases: procedural, evidentiary, and decision. The "Energy Facilities Siting Handbook" provides a detailed description of the review process.[9]

Depending on the nature and location of proposed energy facilities, license applications may be reviewed by other state and local agencies, including the MEPA Unit, various divisions of DEP, the Office of Coastal Zone Management, the Massachusetts Historical Commission, and local planning boards, building inspectors, conservation commissions, and water departments.

Review Process: An energy facility review begins when a prospective developer files a petition to construct a facility with the Siting Board's jurisdiction. This petition filing initiates the Procedural Phase, during which the Siting Board lays the groundwork for its formal review of the proposed facility. Public notice of the proceeding is issued, and one or more public comment hearings are held to determine participants in the formal proceeding and establish the ground rules and schedule for the Evidentiary Phase.

The Evidentiary Phase is the information-gathering portion of the review process. During this phase, the Siting Board develops a factual record upon which to base its decision.[10] This evidence is generally provided by witnesses sponsored by the applicant and by intervenors. Once the evidentiary hearings conclude, the Decision Phase begins.

During the Decision Phase, applicants, intervenors, and limited participants may file legal briefs that evaluate the evidence and present their opinion as to whether the proposed facility should be approved, approved with conditions, or rejected. The Siting Board staff then drafts a Tentative Decision based on the record of evidence.

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[7] While the Siting Board does not regulate the construction of energy facilities that are not capable of or designed to operate at a gross capacity of at least 100 MW, siting requirements for smaller facilities may exist within the Department of Environmental Protection or at the local level.

[8] Except reconductoring or rebuilding of transmission lines at the same voltage. (M.G.L. c. 164, § 69 G).

[9] https://www.mass.gov/files/documents/2017/10/11/EFSB%202016%20Handbook_0.pdf.

[10] The Siting Board's decision must be based solely on information that has been properly admitted into the evidentiary record during the proceeding.

Approximately two weeks after the Tentative Decision is issued, the Siting Board holds a public meeting to consider whether to approve, amend, or reject the Tentative Decision. If the Siting Board adopts the Tentative Decision, a Final Decision is issued. The Final Decision incorporates all approved amendments to the Tentative Decision and is typically issued on the business day immediately following the Siting Board's vote.

Process Time: The Siting Board's review of a facility proposal generally is completed within a year; however, the length of the review varies with the type and complexity of the facility proposal.

Legal Authority: 980 CMR: Rules for Conduct of Adjudicatory Proceedings; G.L. c. 164, Section 69H.

10.6 Massachusetts Environmental Policy Act Certificate

MEPA requires that state agencies study the environmental consequences of their actions, including permitting and financial assistance.[11] The MEPA review process also provides opportunities for public review of the potential environmental impacts of projects. The MEPA Unit, within the Executive Office of Energy and Environmental Affairs, administers this program. The MEPA Unit maintains a website where project proponents can obtain forms and instructions for filing documents, and members of the public can find out about projects under review and how to submit comments. [12]

MEPA reviews occur before state permits are issued to ensure that the environmental consequences of the proposed action are known in advance and can be avoided, reduced or minimized with mitigation measures and/or alternative actions. The primary mechanism for information collection and mitigation in the MEPA process is the Environmental Impact Report (EIR). Mitigation measures established in the MEPA process become permit conditions for the project.

Review Process: If a proposed project meets one of the MEPA review thresholds and requires a state action, then project proponents first prepare and file an Environmental Notification Form (ENF) with the Secretary of Energy and Environmental Affairs. The ENF consists of a concise, accurate description of the project and its alternatives, an initial assessment of potential environmental impacts, and proposed mitigation measures. It also identifies any review thresholds the project may meet or exceed, identifies state agency actions that may be required, and describes how the proposed project complies with applicable regulatory requirements.

Notice of the ENF filing is published online in the semi-monthly *Environmental Monitor.* When an ENF is filed, all relevant state agencies are required to participate in a consultation session with the MEPA Unit to identify any aspects of the project that require additional description or analysis in an EIR. The agencies will then file comments regarding the results of the consultation and identifying opportunities to maximize consistency and facilitate coordination between the agency action and MEPA review, or any other agency actions.[13]

The total review period for an ENF is 30 days from the publication date of the *Monitor*. The first 20 days of this period are open for public and agency comments. If significant environmental problems are identified at the ENF stage, then the MEPA Unit may determine that an EIR is necessary. The MEPA review thresholds also identify projects whose potential impacts are such that an EIR is automatically required. After the close of public comment and before the last day of the ENF review period, the Secretary of Environmental Affairs issues a certificate stating whether or not an EIR is required and, if so, what the scope of the EIR will be.[14] Given the newness of hydrokinetic technologies and the inherent uncertainties of the ocean environment, hydrokinetic facilities will likely require an EIR.

[11] State agency actions are defined as granting state permits or licenses, providing state financial assistance, or transferring state land.
[12] https://www.mass.gov/orgs/massachusetts-environmental-policy-act-office.
[13] For projects that also require federal NEPA review, every effort will be made to coordinate agency review and documentation.
[14] The scope of the EIR is limited to the potential environmental damages of the proposal that are within the subject matter of required state permits.

The EIR should be filed as soon as reasonably possible. The project proponent first prepares a draft EIR that presents a thorough description and analysis of the project and its alternatives, and an assessment of its potential environmental impacts and mitigation measures. If the Secretary determines that the draft EIR is adequate, the proponent then prepares and submits a final EIR.[15] The project proponent should use the comments on the draft EIR to inform the final EIR.

The final EIR review period lasts for 37 days following the date on which notice of its availability is published in the *Environmental Monitor*. The first 30 days of this review period are open to public and agency comment. Within seven days after the close of the comment period, the Secretary issues a certificate stating whether or not the EIR adequately and properly complies with MEPA and its implementing regulations.

No state agency action may be taken until the Secretary certifies that the EIR complies with MEPA, which ensures that the environmental impacts have been fully described and all necessary plans are in place to avoid, minimize, and mitigate adverse effects.

Lead Agency: The MEPA Unit, within the Executive Office of Energy and Environmental Affairs, administers this review.

Process Time: Varies; at least one year. The ENF should be filed sufficiently prior to commencement of the project and any required agency actions to allow timely compliance with MEPA. If a project requires one or more state permits or involves financial assistance but does not involve a land transfer, the proponent should file the ENF at least ten days after filing the first application for a permit or financial assistance. Project proponents may consult with the Secretary for specific advice as to when to file the ENF.

Legal Authority: M.G.L. c. 30, sections 61-62H: Massachusetts Environmental Policy Act; 301 CMR 11.00: MEPA Regulations.

10.7 Massachusetts Endangered Species Act

The Massachusetts Endangered Species Act (MESA) manages a list of endangered or threatened species or species of concern, and of their habitat. MESA prohibits the taking, possession, transport, export, processing, sale or purchase of all listed species and any other species listed under the federal ESA. Further, MESA prohibits any alteration of significant habitat of any protected species that would reduce the viability of the habitat.

MESA is administered by the Natural Heritage and Endangered Species Program (NHESP), within the Massachusetts Division of Fisheries and Wildlife (DFW). The NHESP coordinates MESA with the federal ESA.

NHESP publishes a map of estimated threatened and endangered species habitat, and the state's Natural Heritage Program staff can help to identify any mapped habitat for endangered species.[16] Alterations of significant endangered or threatened species habitat require a permit from NHESP.

Review Process: If any portion of a project is proposed in estimated rare or endangered species habitat, a Rare Species Information Request Form must be submitted to NHESP.[17] NHESP will determine the rare species present in the estimated habitat and recommend measures to protect them.

Lead Agency: Natural Heritage and Endangered Species Program

Process Time: Four weeks from receipt of complete Request Form

Legal Authority: M.G.L. c. 131A: Massachusetts Endangered Species Act; 321 CMR 8:00: List of Endangered and Threatened Species; 321 CMR 10:00: Massachusetts Endangered Species Regulations.

[15] The Secretary may limit the scope of the final EIR to aspects of the project or issues that require further description or analysis and a response to comments.
[16] To prevent unauthorized takings, resident species are not identified on the maps.
[17] Request Forms may be downloaded online: https://www.mass.gov/how-to/request-rare-species-information.

10.8 Order of Conditions

Projects proposed in wetlands resource areas or in the buffer zone[18] around them must meet performance standards to ensure that certain levels of environmental impacts are not exceeded. Wetland resources include a variety of inland and coastal wetland resource areas. Wetlands Protection Act (WPA) regulations also encompass the Rivers Protection Act (RPA), which provides for an area of protection 200 ft. wide on each side of a river to limit impacts to resources such as fisheries and water supplies.[19]

Lead Agency: WPA is administered by the local Conservation Commissions and the DEP Wetlands and Waterways Program. Development structures and activities in wetlands or in the buffer zone around them must be authorized by an Order of Conditions (OOC) from the municipal Conservation Commission, verifying that the proposed project complies with the performance standards of the WPA and RPA. Project proponents should also check with Conservation Commission officials to determine if there are any local wetlands bylaws applicable to the project.

Review Process: To apply for an OOC, project proponents must submit a Notice of Intent (NOI)[20] specifying construction methods that will be used to meet performance standards by avoiding, minimizing and mitigating damage to wetland areas, along with supporting plans that have been stamped by a professional engineer. Applicants may also be required to submit supporting materials prepared by other professionals, such as a registered land surveyor, biologist, environmental scientist, geologist, or hydrologist. The NOI application provides the agencies with a complete and accurate description of the site and proposed work.[21]

A copy of the NOI is also submitted to the DEP regional office, which issues a file number for the proposed activity. If the proposed work is located seaward of the mean high-water line of a coastal area or within an anadromous fish run, the applicant must send a copy of the NOI to the Massachusetts Division of Marine Fisheries (DMF). Additionally, legal notice of the NOI is published in a local newspaper. The Conservation Commission holds a public hearing on the proposal and issues a decision after the conclusion of the hearing.

The Commission has up to 21 days to issue an OOC approving the project with conditions or denying the project. Abutters, a group of ten citizens, or the applicant have 10 days to appeal an approval to DEP. If the project is appealed, DEP issues a Superseding Order of Conditions (SOOC), either confirming or altering the original order. Similarly, if the proposal is denied, the applicant can appeal the decision to DEP, which issues a SOOC either confirming or altering the original order.

In cases where a portion of the proposed project is located in Estimated Habitat of Rare Wildlife, the applicant must also send the NOI to NHESP. In some cases, projects which are subject to a MESA review may qualify for streamlined MESA/WPA review. However, if MESA supplemental information is not included with the NOI, NHESP requires a separate MESA filing, which may take up to 90 days to review.

Process Time: 30 days from receipt of complete application and supporting materials.

Legal Authority: M.G.L. c. 131, Section 40: Massachusetts Wetlands Protection Act; 310 CMR 10.00: Wetlands Regulations.

10.9 Clean Water Act Section 401 Water Quality Certification

The purpose of CWA Section 401 is for states to ensure that no federal license or permit authorizes an activity that would violate the state's water quality standards or become a future source of pollution. A Section 401 WQC covers construction, operation, maintenance, and decommissioning of a proposed project, and conditions of the WQC become conditions of the federal license or permit. All aspects of the project, including energy production devices and any cables in, on, or under state waters (including wetlands) are considered in the review.

[18] A 100-foot buffer zone around most wetland resources areas is subject to jurisdiction under the WPA.
[19] In densely developed areas, the protected river corridor is 25 ft. wide.
[20] Application forms are available online https://www.mass.gov/lists/wetlands-permitting-forms.
[21] The submittal of a complete and accurate description of the site and project will minimize requests for additional information by the issuing authority that may result in an unnecessary delay in the issuance of an Order of Conditions.

Lead Agency: The DEP Wetlands and Waterways Program administers the Section 401 WQC Program.[22] The Section 401 review ensures that a proposed dredge and/or fill project that may result in the discharge of pollutants complies with Massachusetts Surface Water Quality Standards (314 CMR 4.00) and otherwise avoids or minimizes individual and cumulative impacts to Massachusetts waters and wetlands.

Review Process: Various supporting documents, studies, reports or other types of information must be submitted with the application form. Information requirements vary depending on project-specific criteria, such as technology type, size and location.[23] Also, applications must be accompanied by the appropriate fee. When an application for certification is received and deemed administratively complete, the official Section 401 technical review begins. Reviews are divided into projects that place fill within subject areas, Major Projects (5,000 cubic yards of dredging or more), and Minor Projects (less than 5,000 cubic yards of dredging). Many projects can be authorized by the local OOC without the need for an individual Section 410 WQC application.

A Section 401 WQC application must include a description and plans of the proposed dredging area, method of dredging, results of the chemical and physical testing of the material to be dredged, and the proposed disposal site. If the proposed dredging is in an Outstanding Resource Water[24], then the applicant must publish a public notice in the *Environmental Monitor*. Copies of the public notice must be sent to the local Conservation Commission and to DEP. Written comments on the application are accepted by DEP for 21 days. DEP may condition the Certification to ensure that state surface waters are not harmed by the project.

Certification – Certification is issued if the proposed project complies with water quality standards and with the Ocean Management Plan. Terms, conditions, management practices, and operations and maintenance requirements may be imposed to mitigate potential impacts to beneficial uses and other standards. By federal law (33 USC § 1341(d)), such conditions must be included in the federal license or permit.

Denial – DEP will deny certification if the project cannot comply with water quality standards or with procedural requirements. If certification is denied, the federal permit or license (e.g., the COE § 404 Permit) cannot be issued.

Process Time: Based on the *Hoopa* decision, a WQC determination must be made within one year.[25]

Legal Authority: 33 USC 1341 et seq. Section 401: Federal Water Pollution Control Act, M.G.L. c. 21, sections 26-53: Massachusetts Clean Water Act; 314 CMR 4.00: Surface Water Quality Standards, 314 CMR 9.00: Section 401 Water Quality Certification.

10.10 State Fisheries Recommendations

Pursuant to state fisheries regulations, projects in waterways must minimize impacts to finfish and shellfish and their habitat; this applies to commercial and sport fin fisheries and shellfisheries within the Massachusetts territorial sea and in Nantucket Sound.

Lead Agency: DMF licenses and oversees fin fisheries and shellfisheries in Massachusetts waters, both for resident species and those that spend a portion of their lifecycle in the state's tidal waters. Responsibilities include (1) administration of marine fisheries laws; (2) assessment and enhancement of the biological integrity of marine fish and fisheries important to the Commonwealth; and (3) cooperation with state, federal, and international agencies to accomplish these goals. Regulatory activities are conducted in coordination with NMFS.

Review Process: DEP contacts DMF as part of its Section 401 WQC review. DMF recommends time-of-year restrictions to protect spawning fish or mitigation for damage to shellfish beds or areas of submerged aquatic

[22] See regulations at 314 CMR 9.00.
[23] Application forms are available online. https://www.mass.gov/how-to/ww-07-08-09-water-quality-certifications-dredging-projects.
[24] Certain waters are afforded Outstanding Resource Water protection under the Massachusetts Surface Water Quality Standards, 314 CMR 4.04(3): "Certain waters are designated for protection under this provision in 314 CMR 4.06. These waters include Class A Public Water Supplies (314 CMR 4.06(1)(d)1.) and their tributaries, certain wetlands as specified in 314 CMR 4.06(2) and other waters as determined by the Department based on their outstanding socio-economic, recreational, ecological and/or aesthetic values. The quality of these waters shall be protected and maintained." https://docs.digital.mass.gov/dataset/massgis-data-outstanding-resource-waters.
[25] https://www.environmentallawandpolicy.com/2019/01/d-c-circuit-strikes-withdraw-resubmit-practice-state-quality-certifications/.

vegetation. DMF recommendations are incorporated into the Section 401 WQC as conditions of the federal license or permit. No additional forms or fees are required for DMF review of Section 401 applications.

Process Time: This review occurs within WQC review process, so fisheries recommendations are issued concurrently with the WQC.

Legal Authority: M.G.L. c. 21, Section 5, and c. 130, sections 1-104: Marine Fisheries; 322 CMR 2.00 et seq.: Marine Fisheries Regulations.

10.11 Chapter 91 License

Chapter 91 of the Massachusetts General Laws is the Public Waterfront Act, which is the public trust statute that protects public interest in tidelands, Great Ponds, and certain navigable rivers and streams. The corresponding Waterways regulations that guide the implementation of this Act promote the preservation of tidelands for water-dependent uses that require direct access to the water and to ensure that these areas are maintained for public use and enjoyment when privately developed. As such, any project proposed in, under, or over flowed or filled tidelands must be authorized by a Chapter 91 license or permit.

Lead Agency: DEP's Wetlands and Waterways administers the Chapter 91 Waterways Program.

In 2008, the Waterways regulations were revised to specifically include offshore renewable energy infrastructure facilities on the list of presumptive "water-dependent uses" (310 CMR 9.00).[26] This means that ocean wave energy facilities, ocean current-energy facilities, and tidal energy facilities are all presumptively considered water-dependent uses. Additionally, infrastructure facilities used to deliver electricity from an offshore facility located outside the State's territorial sea are also considered water-dependent uses.

Given that hydrokinetic facilities and/or components thereof require direct access or are located in tideland areas, a Chapter 91 Waterways License will be required, and these projects will more than likely be classified as water-dependent use projects. The term of this license is 30 years. In some cases, activities not involving fill or structures, such as dredging, may receive authorization via a Chapter 91 Waterways Permit, which has a term of 5-10 years.

Review Process: As a prerequisite to Chapter 91 approval, hydrokinetic facilities proposed in an area subject to the Ocean Management Plan must be consistent with that plan. Also, formal review of the project cannot commence prior to completion of the MEPA process, during which key issues are identified.

Applications must include a description of the proposed project location, description of the type of project and its individual structure and uses, project plans stamped by a professional engineer, information about other applicable state permits, a certification that the project does not violate municipal zoning, and notification of the municipal planning board. Projects are reviewed to ensure that they: (1) do not unreasonably interfere with navigation or other water-dependent uses, (2) are structurally sound, (3) provide a proper public purpose, (4) do not interfere with public rights or rights of adjacent property owners, (5) will not adversely affect natural resources, (6) preserve Designated Port Areas for maritime industrial use, and (7) comply with other applicable environmental programs (such as those listed in this handbook and the Ocean Management Plan.) Further, proposed projects must be consistent with performance standards related to pipeline and cable burials.

Project applications are subject to a 30-day public comment period advertised in a newspaper of general circulation. DEP licensing decisions are subject to a 21-day appeal period. Application fees range from $50 - $2,500. License fees are charged for occupation below the low water line, which for water-dependent projects is $1 or $2 per square yard per year of the license term; and for Tidewater Displacement at $2 or $10 per cubic yard.

Process Time: Approximately 3-6 months from receipt of a complete application.

Legal Authority: M.G.L. c. 91: Public Waterfront Act; 310 CMR 9.00: Waterways Regulations.

[26] https://www.mass.gov/waterways-program-chapter-91.

10.12 Coastal Zone Management Act Federal Consistency Determination

In the CZMA, Congress created a federal-state partnership for management of coastal resources. Section 307 of the CZMA requires that federally licensed or permitted activities[27] be consistent with state coastal management policies (e.g., land use planning statutes, marine spatial planning, and water quality standards).[28] A consistency determination is the process used to implement this requirement for federal permits and licenses. Hydrokinetic projects will likely require a Section 404 Permit, a Section 10 Permit, and/or a FERC license, all of which require a consistency review.

Any project proposal that (1) is in or may affect the state's coastal zone,[29] (2) is above certain thresholds (generally, MEPA thresholds), and that (3) requires a federal license or permit must be found to be consistent with Massachusetts CZM's coastal policies.

Lead Agency: CZM implements the state's coastal program policies. These policies are based on existing Massachusetts statutes and regulations and offer guidance on management of water quality, marine habitat, protected areas, coastal hazards, port and harbor infrastructure, public access, energy, ocean resources, and growth management.

Review Process: After receiving the final MEPA Certificate for the proposed project, the applicant must submit a copy of the Certificate, a copy of the federal license or permit application, and a federal consistency certification that describes the project's compliance with CZM's policies to CZM.

CZM places a public notice in the *Environmental Monitor* and accepts written comments for 21 days after the day of publication. CZM may concur with an applicant's federal consistency certification any time after the close of public comment and after the project proponent has received all other applicable state license and permits. CZM has a maximum of 180 days to complete its review.

The project-specific federal activity cannot take place until CZM concurs that the project is consistent with state coastal policies. If CZM finds that the project proposed is not consistent with its policies and subsequently objects to an applicant's federal consistency certification, the applicant can appeal that decision to the US Secretary of Commerce.

Process Time: Up to six months

Legal Authority: 16 USC 1451 et seq.: Coastal Zone Management Act of 1972, as amended, 15 CFR 930; M.G.L. c. 21A, sections 2, 4: Massachusetts Coastal Zone Management Act, 301 CMR 20.00: Coastal Zone Management Program, 301 CMR 21.00: Federal Consistency Review Procedures.

10.13 Underwater Archaeological Survey Permit

The Massachusetts Board of Underwater Archaeological Resources is responsible for managing underwater historical and archaeological resources. The Board oversees the discovery, reporting, protection, and preservation of resources such as abandoned properties, artifacts, treasure trove, and sunken ships that have remained unclaimed for 100 years or more, or which are valued at $5,000 or more, or as determined by the Board to be of historical value.

Lead Agency: Proponents of projects within the coastal and inland waters of Massachusetts must contact the Board of Underwater Archaeological Resources to find out if the proposed activity would disturb underwater archaeological resources. Anyone wishing to excavate an underwater archaeological site must obtain a permit from the Board. In order to protect the resources from unauthorized excavation, the exact location of archaeological sites is not made public.

Review Process: Project proponents should contact the Board to determine if there are underwater archaeological resources at the proposed project site. The Board may require the proponent to conduct an underwater

[27] A federal license or permit includes any authorization, certification, approval, or other form of permission that any federal agency is empowered to issue to an applicant. 15 CFR § 930.51.
[28] The federal consistency review requirements and procedures are detailed in 15 CFR § 930.
[29] The Massachusetts coastal zone is the area bounded by the seaward limit of the state's territorial sea (generally 3 miles from shore) to 100 feet landward of specified major roads, railroads, or other visible right-of-way (generally the first major transportation corridor inland of the shoreline). Projects outside this area but which may affect it may be subject to jurisdiction.

archaeological assessment or investigation. An assessment or investigation requires a special use permit, which is only issued to the archaeological services consultant (not the project proponent). For example, archaeological remote sensing to determine if archaeological resources exist in or near the proposed project area would require a special use permit.

Process Time: 30 days

Legal Authority: M.G.L. c. 6, sections 179 & 180: Board of Underwater Archaeological Resources; M.G.L. Chapter 91, Section 63; 312 CMR 2.00: Massachusetts Underwater Archaeological Resources.

10.14 Historic Properties Review

Properties located in Massachusetts that are on or eligible for listing on the National Register of Historic Places are protected by state and federal laws. Pursuant to these laws, any project proposed in a historic district or that would adversely affect a historic property must avoid, minimize, and mitigate adverse impacts. The primary regulatory vehicle for protecting historic properties is Section 106 of the National Historic Preservation Act (NHPA), which requires federal agencies to consider the effects of federal projects on properties listed or eligible for listing on the National Register. The Section 106 consultation process is a negotiation designed to resolve conflicts between proposed uses and historic places. It does not guarantee the preservation of the property; rather, it guards against inadvertent destruction of historic resources.

Lead Agency: The Massachusetts Historical Commission (MHC) administers NHPA in Massachusetts. MHC inventories historic properties and places in Massachusetts, promotes historic preservation, and implements state and federal preservation laws. MHC uses a process similar to the NHPA to protect properties included on the State Register of Historic Places. However, under state law project proponents have an affirmative responsibility to avoid, minimize, and mitigate any adverse impacts to historic resources. In addition to federal and state preservation programs, many communities have established local historic districts and local preservation bylaws.

Review Process: Applicants must file a Project Notification Form[30] with MHC to obtain a written opinion regarding the impacts of the proposed project on historic resources. The application must include a project description, site description, and a photocopy of the relevant US Geological Survey topographic map.[31] MHC reviews the applicant's information and issues a determination, which can be used for both the MEPA review requirements and the Section 106 consultation with federal resource agencies. Should MHC find that there are protected historic or archaeological resources on the site, it will recommend appropriate avoidance and mitigation measures.

Process Time: At least 60 days

Legal Authority: M.G.L. c. 9, sections 26-27D: Massachusetts Historic Commission; M.G.L. c. 40C: Historic District Act; 950 CMR 71.00: Protection of Properties Included on the State Register of Historic Places.

[30] http://www.sec.state.ma.us/mhc/mhcform/formidx.htm.
[31] http://www.topozone.com.

10.15 Massachusetts Agency Contact Information

Agency	Web Address	Address	City	State	Zip	Phone
Massachusetts Energy Facilities Siting Board	https://www.mass.gov/orgs/energy-facilities-siting-board	1 South Station 5th Floor	Boston	MA	02110	617.305.3525
Executive Office of Energy and Environmental Affairs	https://www.mass.gov/orgs/executive-office-of-energy-and-environmental-affairs	100 Cambridge St., Suite 900	Boston	MA	02114	617.626.1000
Department of Conservation and Recreation	http://www.mass.gov/dcr/	251 Causeway St. Suite 900	Boston	MA	02114	617.626.1250
Department of Environmental Protection	www.mass.gov/dep	1 Winter St.	Boston	MA	02108	617.292.5500
Office of Coastal Zone Management	www.mass.gov/czm	251 Causeway St., Suite 800	Boston	MA	02114	617.626.1200
Division of Marine Fisheries	https://www.mass.gov/orgs/division-of-marine-fisheries	251 Causeway St., Suite 400	Boston	MA	02114	617.626.1520
Division of Fisheries and Wildlife, Natural Heritage Endangered Species Program	https://www.mass.gov/orgs/masswildlifes-natural-heritage-endangered-species-program	1 Rabbit Hill Road	Westborough	MA	01581	508.389.6380

11 Rhode Island

11.1 Introduction to Rhode Island Agencies and Authorizations

The State of Rhode Island has two agencies primarily responsible for managing and protecting its natural resources: the Rhode Island Department of Environmental Management (DEM) and the Rhode Island Coastal Resources Management Council (CRMC).

The mission of DEM is to protect and manage Rhode Island's valuable environment and resources. DEM partners with federal agencies such as FWS, EPA, COE, and NOAA, as well as many non-profit organizations, in protecting environmental quality and public health.

CRMC has primary responsibility for the preservation, protection, development, and restoration of the coastal areas of the State via the issuance of permits for activities with the coastal zone of the state.[1] CRMC's role is explained in detail in the "Overview of the Coastal Resources Management Council" section.

DEM and CRMC have permitting authorities for specific activities, and offshore hydrokinetic projects will likely require permits from both agencies. Rhode Island has streamlined the permitting process so that if a project requires authorizations from both DEM and CRMC, or an authorization from a federal agency, applicants are urged to apply to both CRMC and DEM concurrently. For example, hydrokinetic projects will likely require CRMC review, at which time the CRMC will determine whether the project proponent needs to obtain a permit for dredge and/or fill activities. However, other aspects of a project, besides the dredging, that trigger DEM jurisdiction would be applied for under the Water Quality Certification (WQC) application process. Further, projects that involve marine dredging, trenching, and backfilling would also require a Dredge Permit, which is issued by DEM. If the project consists strictly of dredging, the WQC review and decision to approve[2] would be incorporated into the Dredge Permit. As well as involvement by DEM and CRMC in siting offshore hydrokinetic projects, the Energy Facility Siting Board is the licensing and permitting authority for licenses required for siting construction or alteration of a major energy facility in Rhode Island, except for those licenses issued by DEM or CRMC.

In addition to the state agencies responsible for resource management, local governments where transmission cables and/or land-based facilities would be located, would also have pertinent permitting and other regulatory requirements. For example, developers need to obtain land easements from all affected upland property owners in order to obtain access for installation, construction staging, and maintenance activities. While the scope of this handbook is limited to federal and state authorizations, it is important for all stakeholders to be aware that local permitting requirements will likely be needed for siting offshore hydrokinetic projects.

11.2 Coastal Resources Management Council and the Ocean SAMP

CRMC is responsible for the overall administration and operation of the Rhode Island Coastal Resources Management Program (CRMP). CRMC provides assistance to applicants, coastal districts, and state agencies in carrying out their duties and responsibilities under the CRMP. CRMC uses a multiple agency coordinated system for reviewing and processing all resource-related permits required for projects in or affecting coastal areas of Rhode Island. This system, called "project consistency review," is based on the CRMP.

CRMC is also responsible for developing Special Area Management Plans (SAMPs). A SAMP is a comprehensive management strategy that takes into consideration ecological resources as well as economic, social, cultural, and other resources of a specific area. Since 1983, CRMC has developed and adopted eight of these plans, including an Ocean SAMP that includes a provision for renewable energy zones.[3] Planning and zoning for ocean uses in the state's territorial waters will support proper planning and regulation for renewable energy projects in the offshore environment. The Ocean SAMP defines use zones for the state's ocean waters through a research and planning process that integrates science with open stakeholder and public input and involvement. This plan includes mapping existing uses of the state's ocean waters, as well as mapping for critical zones (transportation corridors, military reserves, essential habitat, etc.).

[1] Rhode Island's coastal zone includes the area 200 ft. from a coastal feature, out to 3 nautical miles.
[2] WQC also require compliance with the Water Quality Regulations.
[3] http://www.crmc.ri.gov/samp_ocean.html.

In conjunction with mapping existing uses and critical zones, a screening of sites that have suitable characteristics for renewable energy has been produced. Additionally, a conflict analysis has been performed to determine which area(s) may need a more intensive screening exercise to confirm that these sites meet the initial selection criteria to a reasonable degree of certainty. The draft zoning maps were shared with the public for review and comment. In addition to the Ocean SAMP, CRMC has developed regulatory standards for guiding development and protecting the state's resources (as part of the coastal program). Ultimately, this process is intended to provide preselected sites for offshore renewable energy development that are environmentally and technically sound and have public and government acceptance. As a result, there will be a higher degree of permitting predictability for renewable energy projects, and application reviews can be expedited.[4]

11.3 List of Rhode Island Acronyms

CRMC	Coastal Resource Management Council
CRMP	Coastal Resources Management Program
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DEM	Department of Environmental Management
ECC	Estimated Construction Cost
EFSB	Energy Facility Siting Board
EMF	electromagnetic field
HPHC	Historical Preservation and Heritage Commission
OWR	Office of Water Resources
PD	Preliminary Determination
SAMP	Special Area Management Plan
SRPW	Special Resource Protection Water
WQC	Water Quality Certification

11.4 Summary Table of Rhode Island Authorizations

Authorization/Review	Primary Legal Authority	Lead Agency	Anticipated Process Time
CZMA Federal Consistency Determination	CZMA § 307, RI 46-23-1 (b) (1) (RICRMP)	CRMC	At least 6 months from receipt of complete application
Category B Assent	RI 46-23-18.1	CRMC	Varies; may take 12 months or more
§ 401 Water Quality Certification & Rhode Island Water Quality Standards Review	CWA § 401, RI 46-12-2 (b)	DEM, Office of Water Resources	Up to 1 year
Energy Facility Siting Board License	RI 42-98-1	EFSB	At least 12 months from receipt of complete application

11.5 Coastal Zone Management Act Federal Consistency Determination

In the CZMA, Congress created a federal-state partnership for management of coastal resources. Section 307 of the CZMA requires that federally licensed or permitted activities[5] be consistent with state coastal management policies

[4] The offshore renewable energy industry is experiencing relatively rapid change, as evidenced by the development of the Ocean SAMP. While the actual authorizations required for siting hydrokinetic projects are not likely to vary, the processes though which these authorizations are obtained may change.

[5] A federal license or permit includes any authorization, certification, approval, or other form of permission that any federal agency is empowered to issue to an applicant. 15 CFR § 930.51.

(e.g., land use planning statutes, marine spatial planning, and water quality standards).[6] A consistency determination is the process used to implement this requirement for federal permits and licenses. Hydrokinetic projects will likely require a Section 404 Permit, a Section 10 Permit, and/or a FERC license, all of which require a consistency review.

Lead Agency: In Rhode Island, CRMC is responsible for federal consistency determinations. CZMA consistency certifications are reviewed in accordance with the CRMP. Project proponents should refer to the matrices and Section 1.3.1 of the CRMP manual[7] (the "Red Book") as well as any applicable SAMP[8] to determine whether a proposed activity is allowable, the level of review to which it is subject, and applicable policies, standards and information requirements.

Review Process: The initial step in a federal consistency review is for the applicant to inform CRMC of the proposed activity. CRMC typically arranges an "early coordination" meeting at which the applicant and relevant state authorities discuss the proposed activity to identify the relevant enforceable policies, determine the scope of the review, and resolve any issues that are likely to arise. In cases where multiple federal permits or licenses are required, CRMC works with the applicant and relevant federal agencies to facilitate the review process. Also, CRMC may bring in representatives from state and federal regulatory agencies to further assist in coordinating the consistency review.

Applicants must submit a copy of the application, any supporting information, and a copy of the certification of consistency provided to the federal licensing or permitting agency to CRMC.[9] At a minimum, the following information must be provided:

- A detailed description of the site, nature, and scale of the proposed activity and its associated facilities and services, as well as potential effects on any coastal use or resource.
- Comprehensive data and information sufficient to support the agency's certification review, including maps, diagrams, technical data, and other relevant material.
- A brief assessment relating the probable coastal zone effects of the proposal and its associated facilities to the relevant elements of the CRMP.
- Based upon the assessment of probable coastal zone effects, an analysis indicating that the proposed activity, associated facilities and their effects are consistent with the CRMP.

CRMC advises the applicant of the receipt of the application and complete information package, and this date of receipt officially begins the review period. CRMC reviews the applicant's consistency certification for adequacy and requests from the applicant in writing any required additional information. A request for additional information does not stop the six-month review period.

During its review, CRMC coordinates with the State Historical Preservation and Heritage Commission (HPHC). CRMC requires modification of or prohibits proposed actions subject to its jurisdiction where it finds a reasonable probability of adverse impacts on properties listed in the National Register of Historic Places. Adverse impacts are those which can reasonably be expected to diminish or destroy those qualities of the property which make it eligible for the National Register. CRMC solicits the recommendations of HPHC regarding impacts on such properties.

Prior to permitting actions subject to its jurisdiction on or adjacent to properties eligible for inclusion (but not actually listed) in the National Register of Historic Places, and/or areas designated as historically or archaeologically sensitive by HPHC as the result of its predictive model, CRMC solicits the recommendations of the Commission regarding possible adverse impacts on these properties. CRMC may, based on the Commission's recommendations and other evidence before it, including other priority uses of the Coastal Management Program, require modification of or may prohibit the proposed action where such adverse impacts are likely.

[6] The federal consistency review requirements and procedures are detailed in 15 CFR § 930.
[7] The Redbook is available at http://www.crmc.ri.gov/regulations/RICRMP.pdf.
[8] The Ocean SAMP addresses and assists in guiding this determination.
[9] Applicants are encouraged to consult with CRMC when preparing the information and data package to ensure consistency and avoid unnecessary delay.

CRMC notifies the applicant and the federal permit or license issuing agencies of its decision within six months from receipt of the consistency certification application and information package.[10] If CRMC determines that issuance of a federal permit or license would be inconsistent with the CRMP, it notifies the federal agency, the applicant, and the Secretary of Commerce and explains the nature of the inconsistency. Similarly, if CRMC finds that the applicant has submitted insufficient information to make a consistency determination, it identifies the lack of information and notifies the relevant parties. In the case of an objection, CRMC recommends alternative actions or modifications to the proposed action that would render it consistent with the CRMP.

If CRMC issues an objection, the federal agency may not grant the federal license or permit, unless the applicant appeals the objection to the Secretary of Commerce, and the Secretary overrides CRMC's objection.[11] However, CRMC makes every effort to work with the relevant federal agency and the applicant to reach an agreement which would allow the activity to be conducted in a manner consistent with the CRMP. Specific dispute settlement mechanisms are described in the CRMP manual.

Process Time: Up to six months from receipt of complete application.

Legal Authority: Coastal Zone Management Act, 16 USC 1451, et seq. [15 CFR § 930]; RI General Law 46-23.

11.6 Category B Assent

An "Assent" serves as certification that a proposed project would be conducted in a manner consistent with the CRMP and other state and federal requirements. There are several types of Assents issued by CRMC and each is more or less restrictive depending on what ecological or economic resources may be affected. All development activities or operations that occur in the following areas require a CRMC Assent:

- Within, above or beneath the tidal waters,[12] and that occur on coastal features or
- Within all directly associated contiguous areas which are necessary to preserve the integrity of coastal resources, or
- On any portion of which extends onto the most inland shoreline feature or its 200-foot contiguous area, or as otherwise set out in the CRMP.

Hydrokinetic projects will likely fall under a Category B Assent, which deals with energy related structures constructed or operated within CRMC's jurisdiction. A Category B Assent provides for the highest level of CRMC review.[13] It is important to note that because offshore hydrokinetic projects require federal authorization (i.e., FERC license, COE Permits), they need to obtain both an Assent and a federal consistency certification from CRMC. In this situation, the informational requirements for federal consistency are the same as, and are satisfied by, the requirements for CRMC Assent; essentially, the issuance of an Assent constitutes CRMC concurrence with an applicant's federal consistency certification.

Lead Agency: If, after performing a federal consistency review, CRMC determines that a project is consistent with the goals and policies of the CRMP, then it will issue an Assent.

Before applying for an Assent, applicants first submit a Preliminary Determination (PD) to obtain initial regulatory guidance with respect to permitting the proposed project.[14] This request form helps applicants understand what information is needed for a review, which state and federal permits are required, and what specific regulatory criteria need to be addressed in the Category B Assent Application. CRMC staff assess the PD to highlight project-related issues of particular concern, such as potential impacts on navigation, conflicts with existing uses at the proposed project site, and system structural survivability and technical performance. CRMC staff then work with the applicant

[10] CRMC concurrence is conclusively presumed in the absence of objection within 6 months following the commencement of CRMC review (i.e., receipt of a completed application).
[11] Information pertaining to Secretarial appeals is located in § 400 and 15 CFR part 930, subpart H.
[12] Tidal waters are defined as those waters below the mean high-water mark extending out to the extent of the state's jurisdiction in the territorial sea.
[13] The CMP manual lays out the Assent requirements and considerations in detail. http://www.crmc.ri.gov/regulations/RICRMP.pdf.
[14] PDR application forms are available at http://www.crmc.ri.gov/applicationforms.html. The PDR fee may be applied against the filing fee of applications for CRMC Assent if the is submitted within one year of the issuance of the PDR report.

to make sure the CRMP is satisfied, and the applicant then submits a more thorough application to be considered for an Assent.

Applicants should contact CRMC before initiating the application review process to assure that they have full knowledge of the process and requirements, including applicable fee schedules.

Review Process: The Assent application[15] should include a statement that describes the need for the proposed activity and demonstrates that all local zoning ordinances, building codes, environmental requirements, and other prerequisites are satisfied. The application should also describe the boundaries of the coastal waters and land area that are anticipated to be affected.

In conjunction with the application, project proponents need to prepare a fully-documented environmental assessment that (1) establishes the baseline condition of the protected resources and uses in and around the project site, and (2) quantifies the potential impacts of project construction and operation on those resources and uses. The application must include information demonstrating that:

- The alteration or activity will not result in significant impacts on erosion and/or accretion processes along the shore and in tidal waters;
- The alteration or activity will not result in significant impacts on the abundance and diversity of plant and animal life;
- The alteration will not unreasonably interfere with, impair, or significantly impact existing public access to, or use of, tidal waters and/or the shore;
- The alteration will not result in significant impacts to water circulation, flushing, turbidity, and sedimentation;
- There will be no significant deterioration in the quality of the water in the immediate vicinity as defined by DEM;
- The alteration or activity will not result in significant impacts to areas of historic and archaeological significance;
- The alteration or activity will not result in significant conflicts with water-dependent uses and activities such as recreational boating, fishing, swimming, navigation, and commerce, and;
- Measures have been taken to minimize any adverse scenic impact.

Upon receipt of a complete application, including necessary plans and attachments, CRMC issues notice of the pending application to the public, any adjacent property owners, appropriate quasi-municipal and state agencies, citizen action groups, as well as state and local officials in the areas affected by the activity. This notification commences a 30-day comment period during which CRMC receives comments concerning the application.

After this 30-day period, CRMC reviews the application, taking into consideration staff reports and recommendations from other state and local agencies. CRMC may also inspect the site in person for further investigation and review. If any information in the application is insufficient, CRMC may request additional information necessary to continue the review. Applicants have 30 days to reply to a request for additional information.

Assents are issued for a three-year period. In the event that the applicant is not able to start the project or fails to have a significant amount of the project completed at the end of this period, the applicant must apply for an extension request sixty (60) days prior to the expiration of the Assent.

Process Time: Varies; may take 12 months or more.

Legal Authority: RI 46-23-18.

11.7 Clean Water Act Section 401 Water Quality Certification

The purpose of CWA Section 401 is for states to ensure that no federal license or permit authorizes an activity that would violate the state's water quality standards or become a future source of pollution. A Section 401 WQC covers construction, operation, maintenance, and decommissioning of a proposed project, and conditions of the WQC

[15] The application form is available on the CRMC website: http://www.crmc.ri.gov/applicationforms.html.

become conditions of the federal license or permit. All aspects of the project, including energy production devices and any cables in, on, or under state waters (including wetlands) are considered in the review.

Lead Agency: Pursuant to the CWA and corresponding state laws and regulations, DEM, Office of Water Resources (OWR), is responsible for reviewing proposed projects to determine whether they would result in unacceptable degradation of surface water quality or interference with protected uses. Activities such as dredging, filling, water withdrawals or flow alterations, or certain other site disturbances in state waters usually require a WQC; as such, most hydrokinetic projects will likely require a WQC.

Additionally, if a proposed project or activity is located in Special Resource Protection Waters (SRPW), then the WQC will likely be conditioned to comply with certain terms and conditions to ensure the protection of the SRPW. Under Tier 2½ of the Antidegradation Provisions, the State cannot allow any measurable degradation of the existing water quality necessary to protect the characteristic(s) which cause the waterbody to be designated a SRPW. However, if the applicant can provide, and DEM agrees with, documentation proving that specific mitigation measures and BMPs will completely eliminate any measurable impacts, and that the specified mitigation will protect the SRPW from all measurable degradation, those agreed-to measures will become conditions of the approval.

Various supporting documents, studies, reports or other types of information must be submitted with the application form. Information requirements vary depending on project-specific criteria, such as technology type, size, and location; general information requirements are outlined in the WQC *Application Instructions and Required Enclosures*, provided by DEM.[16]

All WQC applications must include a site plan for the overall proposed project, which must be prepared, signed and dated by a licensed or registered professional engineer. Also, documentation of Estimated Construction Costs (ECC) must be submitted with the application.[17] The ECC for proposed projects must be documented and prepared by an appraiser, general contractor, engineer, land surveyor, architect, landscape architect, or other appropriate qualified professional. Applications must also include payment of the appropriate fee.

Review Process: When an application for certification is received and deemed complete[18] DEM begins its review. To expedite application review, applicants should consult with OWR in the early stages of project planning. When applying, applicants are urged to supply all the necessary information; OWR may request additional information from the applicant at any time in the review process.

Upon determination that an application for WQC is complete, the Director provides or has the applicant provide written notice of the proposed project to all abutters of any property upon which the activity would occur, and to any other such persons, agencies or organizations deemed appropriate by the Director. At a minimum, the chief elected officer of the city or town within which the activity would be conducted will be notified.[19] The notice provides for a 30-day comment period; during this period, any person may provide written comments which may include a request for a hearing on the proposed project or activity. If a hearing is requested by 25 persons, or by a governmental subdivision or agency, or by an association having not less than 25 members, then the Director provides an opportunity for oral comments. The applicant, all persons receiving notice, and all persons submitting comments or requesting a hearing under are notified, at least 14 days in advance, of the time and place of the hearing.

[16] http://www.dem.ri.gov/programs/water/permits/water-quality-certification.php.
[17] Unless the ECC is less than $250,000, requirements are detailed in the WQC form www.dem.ri.gov/programs/benviron/water/permits/wqc/pdfs/wqapp.pdf.
[18] Upon receipt of an application, DEM reviews the application for completeness and notifies the applicant (in writing) whether the application is complete. If DEM finds an application to be deficient, the application processing is suspended, and the applicant must correct the deficiencies.
[19] For projects that the Director determines have the potential to result in impacts beyond the abutting property or that notification of abutters is impracticable, the notice is published in a daily or weekly newspaper with circulation in the involved area. DEM may also require the applicant to publish notice, in a form approved in writing by DEM, in an additional daily or weekly newspaper with circulation that includes the community nearest the proposed location, or statewide.

The Director considers all written and oral comments and may approve modifications to the application package made in response to comments received, without requiring another notice and comment period, provided the modifications are minor in nature and would have little or no adverse environmental impact. All persons who submit comments, either orally at the hearing or in writing, receive written notice of the final agency decision on the application.

Certification - Certification is issued if the proposed project would comply with water quality standards. Terms, conditions, management practices, and operations and maintenance requirements may be imposed to mitigate potential impacts to beneficial uses and other standards. By federal law (33 USC § 1341(d)), such conditions must be included in the federal license or permit.

Denial - The Director denies certification if the project would not comply with water quality standards or with procedural requirements. If certification is denied, the federal permit or license cannot be issued. If an application is denied, the Director advises the applicant of its right to appeal.[20]

Process Time: Based on the *Hoopa* decision, a WQC determination must be made within one year.[21]

Legal Authority: Clean Water Act Section 401; Rhode Island Water Quality Regulations (adopted in accordance with Chapter 42-35 pursuant to Chapters 46-12 and 42-17.1 of the Rhode Island General Laws of 1956, as amended).[22]

11.8 Energy Facility Siting Board License

In Rhode Island, a license is required to site, construct, or alter a major energy facility including any facility of 10 MW or greater capacity that generates electricity by water power and the construction or alteration of transmission lines which transmit more than 125 kW. As such, it is expected that most commercial-scale hydrokinetic projects will require authorization.

Lead Agency: The Energy Facility Siting Board (EFSB) is composed of the Director of DEM, the chairman of the Public Utilities Commission, and the Associate Director of Administration for Planning. Pursuant to the Energy Facility Siting Act, EFSB has broad jurisdiction over energy facilities.

During the licensing process, EFSB requires all of the local, state, and federal authorizations necessary for any development (i.e., CRMC Assent and relevant DEM, COE, FERC, etc.). Issuance of an EFSB license also constitutes granting of most other licenses required for the facility. Exceptions include building, construction and occupancy permits, and other state or local licenses that may, by their nature, be applied for and/or received after a board license is granted. The EFSB Final Decision specifically identifies all licenses that have been granted pursuant to the board license.

Filing Requirements - Project proponents should coordinate early with EFSB to determine the licensing requirements for their particular project. All applications should be filed with the EFSB Coordinator.[23] The application must conform to all of the requirements of the EFSB Rules of Practice and Procedure. Within five business days after an application is filed, the Coordinator transmits a copy of the filing to each Board member and any other person designated by the Board. Some of the major content required for the application is as follows:

- A detailed description of the proposed facility, including the total land area involved, its function and operating characteristics, and complete plans as to all structures, including, underground construction, transmission facilities, cooling systems, pollution control systems and fuel storage facilities associated with the proposed location for the project.
- A site plan for each proposed location for the project.
- Proposed dates for beginning of construction, completion of construction, and commencement of service.

[20] Appeal rights and procedures are described in Rule 21 of the Rhode Island Water Quality Standards regulations.
[21] https://www.environmentallawandpolicy.com/2019/01/d-c-circuit-strikes-withdraw-resubmit-practice-state-quality-certifications/.
[22] http://www.dem.ri.gov/pubs/regs/regs/water/h20q09.pdf.
[23] http://www.ripuc.org/efsb/EFSB_Rules.pdf.

- Estimated number of facility employees (where applicable).
- Required support facilities (e.g., road, gas, electric, water) and an analysis of the availability of the facilities and/or resources to the project.
- Detailed description and analysis of the immediate and cumulative impacts of the proposed facility on the physical and social environment on and off site, along with a detailed description of all environmental characteristics of the proposed site and a summary of all studies prepared and/or relied upon in this description. In the case of transmission facilities, the description and analysis must include a review of current, independent scientific research pertaining to electromagnetic fields (EMFs) and must also provide data on the anticipated levels of EMF exposure and potential health risks associated with this exposure.
- All studies and forecasts which the applicant intends to utilize in demonstrating the need for the proposed facility under the statewide master construction plan (which is submitted annually).
- Detailed description of the ECC, the projected maintenance and operation costs, the estimated unit cost of energy to be produced, and the expected methods of financing the facility. For transmission lines, the applicant must also provide estimated costs to the community such as safety and public health issues, storm damage and power outages, and estimated costs to businesses and homeowners due to power outages.
- A complete life-cycle management plan for the proposed facility, including measures for protecting the public health and safety and the environment during the facility's operations, as well as plans for handling waste from the facility at the end of its useful life.
- A study of the alternatives to the proposed facility, including alternatives as to energy sources, methods of energy production and transmission and sites for the facility, along with the reasons for the applicant's rejection of these alternatives. The study should include estimates of facility costs and unit energy costs of alternatives considered.
- Identification of local, state, and federal agencies which may exercise licensing authority over any aspect of the facility.
- All pertinent information regarding filings for licenses made with federal, state, local, and foreign government agencies, including copies of all documents filed in compliance with NEPA, the date of filing, and the expected date of decision.

Docketing - Within 30 days of filing, the EFSB Coordinator in consultation with the Board, reviews the application to determine whether it meets the requirements of the Energy Facility Siting Act and the Rules of Practice and Procedure. Once an application is deemed complete, the Coordinator sends written notice of the docketing date to the Board, the applicant and the chief executive officer of the city or town in which the proposed facility is to be located.

Notice - Once the application is docketed, the Board issues notice of a preliminary hearing. Notice of the hearing must be issued at least 45 days prior to the hearing date and must be published in The Providence Journal-Bulletin and another newspaper of general circulation in the area in which the proposed facility is to be located. The notice should include a statement of the time, place, and nature of the hearing; a statement of the legal authority and jurisdiction under which the hearing is held; a reference to the particular sections of any statutes and rules involved and; a short and plain statement of the matters involved.[24]

During the application review process, other hearings may be held for testimony and evidence to be given. Public notice must be issued at least 10 days prior to the beginning of these hearings.

Interveners - Participation in a proceeding as an intervener may be initiated by the filing of a notice of intervention by CRMC, DEM, the city or town in which the proposed facility is to be located or designated agencies, or by order of the Board upon a motion to intervene. Also, any person claiming a right to intervene may intervene in any proceeding before the Board.

Advisory Opinions - The Board may designate state agencies to provide advisory opinions on the EFSB license application. Each designated agency must render its advisory opinion within six months following EFSB's

[24] After commencement, a hearing may be adjourned to a subsequent day upon oral notice to those present at the time of adjournment.

designation of the agency; however, the Board may request the agency to render a decision within a lesser time. Additionally, EFSB may request that DEM and CRMC give priority to licenses for energy facilities over which DEM or CRMC exercise licensing authority.[25]

Final Hearing - After the advisory opinions are submitted, EFSB convenes a final hearing to provide the applicant, interveners, the public, and all other parties an opportunity to address the issues reviewed and the recommendations made in the proceedings before the designated agencies, DEM, and CRMC. Within 15 days after the advisory opinions are submitted, public notice of the final hearing is published. Final hearings must commence within 45 days after the advisory opinions are submitted.

If any party wishes to present testimony or evidence at the final hearing, they must file all direct testimony (in writing) and copies of any documents that they propose to introduce at the final hearing with the EFSB Coordinator at least 10 days before the hearing begins.[26] EFSB may limit the presentation of repetitive or cumulative evidence and, except for good cause shown, will not rehear evidence presented previously in proceedings before designated agencies and DEM and CRMC. Presentation and receipt of testimony and evidence concludes within 60 days after the hearing commences.

Final Decision - EFSB issues its Final Decision within four months after the final hearings begin or within 60 days after all testimony and evidence has been received, whichever time period is shorter. In order receive a license, the applicant must demonstrate that:

- Construction of the proposed facility is necessary to meet the needs of the state and/or region for the type of energy produced by the produced facility;
- The proposed facility is cost-justified;
- The proposed facility can be expected to produce energy at the lowest reasonable cost to the consumer;
- Construction and operation of the proposed facility will be accomplished in compliance with all of the requirements of the laws, rules, regulations, and ordinances, under which, absent the Act, a license would be required;
- The proposed facility will not cause unacceptable harm to the environment; and
- The proposed facility will enhance the socioeconomic fabric of the state.

EFSB's final decision specifically addresses each of the advisory opinions received from designated agencies, the Public Utilities Commission and Statewide Planning. Additionally, EFSB may require any modification or alteration to the proposed facility and may place conditions on the grant of the board license. For example, a license may be issued conditionally upon the applicant's receipt of federal licenses.

Process Time: at least 12 months

Legal Authority: Energy Facility Siting Act, RI Gen. Laws Section 42-98-1 et seq. as amended.[27]

[25] Pursuant to delegated authority of federal law, state laws and regulations which implement such federal law or pursuant to chapters 2-1 and 46-23 of the Rhode Island General Laws.
[26] Except for good cause shown, the Board will not receive direct testimony, documents or other evidence that has not been pre-filed.
[27] http://www.ripuc.org/efsb/EFSB_Rules.pdf.

11.9 Rhode Island Agency Contact Information

Agency	Web Address	Mailing Address	City	State	Zip	Phone
Coastal Resource Management Council	www.crmc.ri.gov	Stedman Government Center, Suite 3 4808 Tower Hill Road	Wakefield	RI	02879-1900	401.783.3370
Energy Facility Siting Board	www.ripuc.org/efsb/index.html	89 Jefferson Blvd.	Warwick	RI	02888	401.941.4500
Historical Preservation and Heritage Commission	www.preservation.ri.gov	Old State House 150 Benefit St.	Providence	RI	02903	401.222.2678
Office of Water Resources	http://www.dem.ri.gov/programs/water/	235 Promenade St.	Providence	RI	02809-5767	401.222.4700
Public Utilities Commission	www.ripuc.org	89 Jefferson Blvd.	Warwick	RI	02888	401.941.4500
Department of Environmental Management	www.dem.ri.gov	235 Promenade St.	Providence	RI	02809-5767	401.222.4700

12 Florida

12.1 Overview of Florida Agencies and Authorizations

Ocean current projects in Florida require a proprietary authorization (i.e., a lease or easement) for placement of hydrokinetic devices and transmission lines within state-owned submerged lands.[1] These projects also need an Environmental Resource Permit (ERP) to ensure water quality and natural resources are not adversely affected. Florida's "Linkage Rule" streamlines the review of the necessary state regulatory and proprietary authorizations statewide; as a result, a single application is used for both regulatory authorization and proprietary authorization of a project proposed on state-owned submerged lands,[2] and the applicant receives a one-stop review by all appropriate state and regional agencies, and all the relevant parties can communicate through a single process.

The Department of Environmental Protection (DEP) generally reviews and takes actions on applications involving power plants, transmission lines, and systems located seaward of the coastal construction control line. ERP permitting and state-owned submerged lands authorizations are carried out by DEP in the district office that is responsible for the area where the project is proposed. Since ocean current projects will most likely be sited off Florida's southeast coast, DEP will have jurisdiction over these hydrokinetic facilities, and ERP applications for these projects will be processed by DEP's Southeast District office.

The primary role of the Florida Fish and Wildlife Conservation Commission (FWC) is managing fish and wildlife resources for their long-term well-being and the benefit of people. FWC also advises other agencies as to how to avoid, minimize, and mitigate for impacts to fish and wildlife resources when those other agencies are considering issuing permits (or approving plans) whose regulations require that the action agency take into account the potential effects of the proposal on those resources. Since there is not yet an established process for hydrokinetic projects, the extent to which FWC might perform this latter service has not yet been explored. In the context of siting hydrokinetics, FWC will be the lead agency for the state Endangered Species Review and will provide State Fisheries recommendations.

12.2 List of Florida Acronyms

COE	US Army Corps of Engineers
CZMA	Coastal Zone Management Act
DEP	Department of Environmental Protection
ERP	Environmental Resource Permit
FCMP	Florida Coastal Management Program
FWC	Fish and Wildlife Conservation Commission

12.3 Summary Table of Florida Authorizations

Authorization/Review	Primary Legal Authority	Lead Agency	Anticipated Process Time
Environmental Resource Permit	Rule 62-343.090(2)(i), FAC § 120.60(1), F.S., and § 373, Part IV F.S.	DEP Office of Submerged Lands	12-24 months
Submerged Lands Easement/Lease			
CZMA Federal Consistency Determination	§ 301 CZMA; Florida Coastal Management Program	DEP Office of Intergovernmental Affairs	3 months

[1] This applies to activities and structures "in, on, over or under" the state's submerged lands, which encompass the areas from mean high water to the three nautical mile limit of the State's Territorial Sea.
[2] Chapter 18-21, Florida Administrative Code (F.A.C.)

12.4 Environmental Resource Permit and Sovereign Submerged Lands Lease

The ERP program regulates activities involving the alteration of surface water flows, including dredging and filling activities, to ensure that proposed activities do not degrade water quality or habitat for aquatic or wetland-dependent wildlife, including marine species. There are different types of ERPs for different types of projects. For hydrokinetic projects, the ERP likely would be an individual permit, which is used for proposed projects that involve more than one acre of work in wetlands or surface waters.

Lead Agency: Hydrokinetic projects sited off Florida's southeast coast are under the jurisdiction of the DEP Southeast District Office in West Palm Beach office, which coordinates the application review.[3]

Information Requirements: Five copies of the application package should be submitted, including the appropriate forms,[4] as well as documentation regarding site information, including (but not limited to) the following: facility design plans, construction schedules and techniques, operation and maintenance plans, and environmental considerations. The review criteria for use of sovereign submerged lands includes a requirement that the activity not be contrary to the public interest, and only uses that are water dependent can be approved,[5] and the easement or lease application form requires a detailed statement describing the existing and proposed uses and activities.

Review Process: Within 30 days of receipt, applications are reviewed for completeness and any additional information is requested.[6] Once deemed complete, DEP solicits final comments from other state resource agencies and makes a determination whether the proposed project can be authorized and whether the mitigation offsets the projects impacts. For hydrokinetic projects, FWC may weigh in on the review in terms of potential impacts to wetland-dependent fish and wildlife species, with an emphasis on those that are listed by the State as endangered, threatened, or of special concern.

Municipal officials, abutting landowners, and members of the general public are also given an opportunity to comment on the application. The agencies are asked to review and comment on the application, taking into consideration the full range of economic, environmental, and energy benefits and adverse impacts of a proposed project.

The application package submitted to DEP is also used for the state's CZMA Federal Consistency Certification and the CWA Section 401 WQC reviews and is forwarded to FWC and the Division of State Historical Resources. Additionally, a copy of the application package is forwarded to COE for the proposed project's CWA Section 404 and Section 10 Permit reviews.

Process Time: Under this joint process, both state authorizations follow a single time line regarding the completeness of the application and issuance or denial of the authorization.[7] Typically, DEP is required to issue either a permit, a Notice of Intent to grant a permit, or a denial within 90 days (after the application is deemed complete). However, if the proposed project is particularly complex, this time period may be waived by an applicant to ensure that DEP has sufficient time to review and approve the proposed project; since the permitting of hydrokinetic facilities is typically complex, this may be a preferred course of action.

Individual ERPs are generally issued for five years; however, the term may be extended to be concurrent with other project authorizations (such as a FERC license) as long as reasonable assurances are provided.

Legal Authority: Rule 62-343.090(2)(i), Florida Administrative Code, Section 120.60(1), Florida Statute, and Section 373, Part IV Florida Statutes.

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[3] For further contact information, visit the Southeast District Office's website: www.dep.state.fl.us/southeast/.
[4] The application and forms are online: https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/forms-environmental-resource.
[5] Except for certain non-water dependent activities that involve incidental uses, which may be approved on a case-by-case basis for public projects.
[6] The applicant has 90 days to submit the additional information. If an applicant needs more than 90 days, they may notify DEP of the circumstances, and the application will be held in active status for one additional period of up to 90 days.
[7] However, failure to satisfy these time frames would not result in approval by default.

12.5 Coastal Zone Management Act Federal Consistency Determination

In the CZMA, Congress created a federal-state partnership for management of coastal resources. Section 307 of the CZMA requires that federally licensed or permitted activities[8] be consistent with state coastal management policies (e.g., land use planning statutes, marine spatial planning, and water quality standards).[9] A consistency determination is the process used to implement this requirement for federal permits and licenses. Hydrokinetic projects will likely require a Section 404 Permit, a Section10 Permit, and/or a FERC license, all of which require a consistency review.

The State of Florida's coastal zone includes the entire state – all the area encompassed by the state's 67 counties and its territorial seas. [10] Under the Submerged Lands Act, Florida's territorial sea extends three nautical miles into the Atlantic Ocean and approximately nine nautical miles into the Gulf of Mexico.[11] The Florida Coastal Management Program (FCMP) consists of a network of 23 Florida Statutes, which are administered by nine state agencies and five water management districts. This framework allows the state to make integrated, balanced decisions for the proper use and protection of the state's natural resources.

Depending on the type of federal action being proposed, federal consistency reviews may be integrated into other review processes conducted by the State. For example, federal consistency reviews for activities requiring Section 404 and Section10 Permits from COE are conducted during the ERP review process. For hydrokinetic projects, it is likely that the ERP process will act as the state's final consistency review; in this case, the clearance letter will indicate the need for the applicant to coordinate with the appropriate state agencies to receive required permits for activities such as dredge and fill, transmission line installation, etc.

Lead Agency: The Florida State Clearinghouse, within the DEP Office of Intergovernmental Programs, is the lead for consistency evaluations. All consistency reviews are coordinated with the appropriate FCMP member agencies.[12] Each agency is given an opportunity to provide comments on the merits of the proposed action, address concerns, make recommendations, and state whether the project is consistent with its statutory authorities in the FCMP. In addition, the state's regional planning councils and local governments may participate in an advisory capacity by providing comments relating to consistency with local comprehensive plans, regional policy plans, and other local land planning issues.

To ensure timely review and response, applications should be submitted at the earliest feasible time, and applicants are strongly encouraged to contact the Clearinghouse prior to submitting an application to ascertain the specific information requirements and the number of copies needed.[13]

Information Requirements & Review Criteria: Along with the consistency determination, the following information and documentation should be provided: information regarding local government jurisdiction, zoning, water and sewer availability, flood zone and/or susceptibility to flooding, coastal high hazard area, storm water management, hydrology (including the presence of wetlands) and total acreage; and maps that show the precise site location, surrounding areas, and the proposed site plan. A proposed project is reviewed to determine whether it is in accordance with the following criteria: compatible and consistent with state laws, regulations, plans, programs; financially sound; protects water quality, historical/archaeological resources, and wildlife, and avoids adverse environmental impacts to the maximum extent practicable; and, is effective and efficient.

Review Process: Within three calendar days after receiving a complete application, the Clearinghouse logs the project into the database, distributes copies of the application and materials to the selected reviewers, and notifies the applicant of the estimated review period.

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[8] A federal license or permit includes any authorization, certification, approval, or other form of permission that any federal agency is empowered to issue to an applicant. 15 CFR § 930.51.
[9] The federal consistency review requirements and procedures are detailed in 15 CFR § 930.
[10] The only exceptions are lands the federal government owns, leases, holds in trust, or whose use is otherwise by law subject to the sole discretion of the federal government, its officers, or agents. Lands held by the Seminole and Miccosukee Indian Tribes are also exempted.
[11] In accordance with United States vs. Louisiana, et al., 364 US 502 (1960).
[12] A list of agencies in the network is online: https://floridadep.gov/rcp/fcmp/content/state-agency-partners.
[13] Contact information is available online: https://floridadep.gov/oip/oip/content/clearinghouse.

The reviewing agencies generally have a 30-day initial response deadline, based upon the date the Clearinghouse received the project.[14] The purpose of this initial deadline is to ensure that projects are reviewed in a timely manner and that any obvious deficiencies or concerns are identified as quickly as possible. By the comment due date, reviewers may choose to comment, request additional time for their review, or not to comment on the project. In special circumstances (e.g., complex issues), a reviewing agency may request additional time to complete a review.[15]

Issuance or Denial of Consistency: Once comments have been received from all necessary reviewers, a consistency determination is issued. If a state agency determines that a proposed federal activity is inconsistent, the agency must explain the reason for the objection, identify the statutes the activity conflicts with and identify any alternatives that would make the project consistent. If the proposed project is found to be consistent with state plans, programs, procedures and objectives, the applicant receives a State Clearance Letter. This letter explains the criteria used for the review, summarizes comments from reviewers and, if relevant, provides determinations of compliance with the local comprehensive plan and consistency with the FCMP. If significant concerns were identified by reviewers, the applicant is informed of how those concerns could be resolved.

A Conditional Approval may be issued if the overall proposal is acceptable, but some aspect of it is unacceptable or requires further review; a Conditional Approval may also be issued if the Clearinghouse was not provided with sufficient information to make a determination of federal consistency or other compliance with state law. In these cases, the reviewers condition the approval on the performance of certain actions by the applicant. For example, the applicant may need to obtain specified permits or licenses, conduct more study work, or simply provide additional information. Conditionally approved projects do not need to be resubmitted for review.

Process Time: The standard review period is 60 days, beginning with the date the complete application and materials are received by the Clearinghouse.[16] However, if comments are received by all reviewing agencies prior to that time, the Clearinghouse issues the clearance letter as soon as the file is complete. If the Clearinghouse is unable to forward a clearance letter by the 60th day, the applicant is notified in writing that the clearance letter due date will be extended a maximum of 15 days, unless otherwise agreed to by the applicant.

Legal Authority: Coastal Zone Management Act (16 USC 1451 et seq., 15 CFR 930); Florida Coastal Management Program.

12.6 Clean Water Act Section 401 Water Quality Certification

The purpose of CWA Section 401 is for states to ensure that no federal license or permit authorizes an activity that would violate the state's water quality standards or become a future source of pollution. Section 401 WQC covers construction, operation, maintenance, and decommissioning of a proposed project, and conditions of the WQC become conditions of the federal license or permit. All aspects of the project, including energy production devices and any cables in, on, or under state waters (including wetlands) are considered in the review.

Lead Agency: DEP is the lead agency for Section 401 WQC certification.

Review Process: Along with the application form, project proponents must submit various supporting documents, studies and reports, as well as the appropriate fees. The application package submitted to DEP for the ERP and Submerged Lands Easement or Lease is also used for the state's Section 401 WQC review. When an application is received and deemed complete, the official Section 401 review begins.

Applications are reviewed to assess the impacts of the proposed activity on water quality, including impacts on designated uses, and the consistency of the activity with applicable water quality standards.

[14] If projects are sent out from the Clearinghouse later than three days after receipt, additional time will automatically be added to the reviewers' comment period.
[15] Generally, a 15-day comment extension may be provided to reviewers upon request.
[16] Failure to provide all necessary information or a sufficient number of copies in the project application will result in the project being considered an incomplete submittal and placed on hold until the necessary information is supplied, and the 60-day review timeframe may be restarted once all necessary information is received.

Certification – Certification is issued if the proposed project will comply with state and federal water quality standards and requirements. Terms, conditions, management practices, and operations and maintenance requirements may be imposed to mitigate potential impacts.

Denial – Certification is denied if the project does not comply with water quality standards or with procedural requirements. If certification is denied, the federal permit or license cannot be issued.

Process Time: Based on the *Hoopa* decision, a WQC determination must be made within one year.[17] Once DEP determines that an application is complete, it has 180 days to act on the certification, or the certification will be considered waived.

Legal Authority: Section 401 Clean Water Act; part IV of Chapter 373, F.S.

12.7 Endangered Species Review

The mission of FWC is to ensure healthy populations of all native species and their habitats on a statewide basis. To fulfill this mission, FWC undertakes numerous resource management and protection initiatives, including managing aquatic habitat for marine, estuarine, and freshwater systems to benefit a wide array of fish and wildlife. FWC is also responsible for enforcing the rules and regulations that relate to the state's fish and wildlife resources. FWC rules prohibit activities that may have a negative effect on protected fish and wildlife without a permit, which includes species listed as endangered, threatened or species of special concern.

Lead Agency: FWC uses a multi-disciplinary approach to develop and implement comprehensive management programs to improve the ecological health of freshwater, estuarine and marine habitats, and protection of state wildlife resources–including endangered species.

Review Process: For hydrokinetic projects, FWC will likely participate in the review of the project to identify and address potential impacts to wetland-dependent and fish and wildlife species, especially those that are listed by the State as endangered, threatened, or of special concern, and recommend measures to protect them. The review process usually involves coordination among FWC Divisions, Sections and Sub-Sections, consultants, other state agencies, federal agencies, and regional and local regulatory authorities. Some project permits may be conditionally issued, pending implementation of an approved management plan that demonstrates the permitted activities will not have adverse impacts to the affected species or their habitats. Other permits may be conditioned to require adherence to specific recommended permit conditions for the protection of fish and wildlife species and their habitats.

Process Time: Reviews typically coincide with the federal ESA review for a proposed project, which takes at least 4.5 months. However, this time frame could vary, based upon what information is provided for the review, as well as final comments that are incorporated into the ERP, which usually are not submitted until the application has been deemed complete.

Legal Authority: Coastal Zone Management Act (16 USC 1451 et seq., 15 CFR 930); Florida Coastal Management Program; Title XXIX, Chapter 403, F.S.; Title XXVIII, Chapter 379, F.S.; Title 68W.

12.8 State Fisheries Recommendations

FWC develops regulatory and management recommendations to ensure the long-term conservation of Florida's valuable fisheries resources and their habitats.

Lead Agency: One of the focus areas of FWC is the review of proposed development projects that may affect fisheries resources.

Review Process: When a project proponent submits an ERP application, DEP contacts FWC as part of its Federal Consistency and Permit 401 WQC reviews. FWC reviews the proposed project and provides CZMA determination of consistency/inconsistency and may provide permit conditions that are to be incorporated into the ERP.

[17] https://www.environmentallawandpolicy.com/2019/01/d-c-circuit-strikes-withdraw-resubmit-practice-state-quality-certifications/.

Process Time: This review occurs within ERP review process; therefore, fisheries conditions are issued concurrently with the ERP.

Legal Authority: Section 373.414(1)(a), F.S.; Coastal Zone Management Act (16 USC 1451 et seq., 15 CFR 930); Florida Coastal Management Program (which includes Title XXVIII, Chapter 379, F.S. and Title 68, Florida Administrative Code).

12.9 Other Relevant Authorities in Florida

In addition to the primary authorizations identified above, siting hydrokinetic projects in Florida involves various other relevant authorities; the list that follows includes authorities which may be involved in the siting process in some capacity.

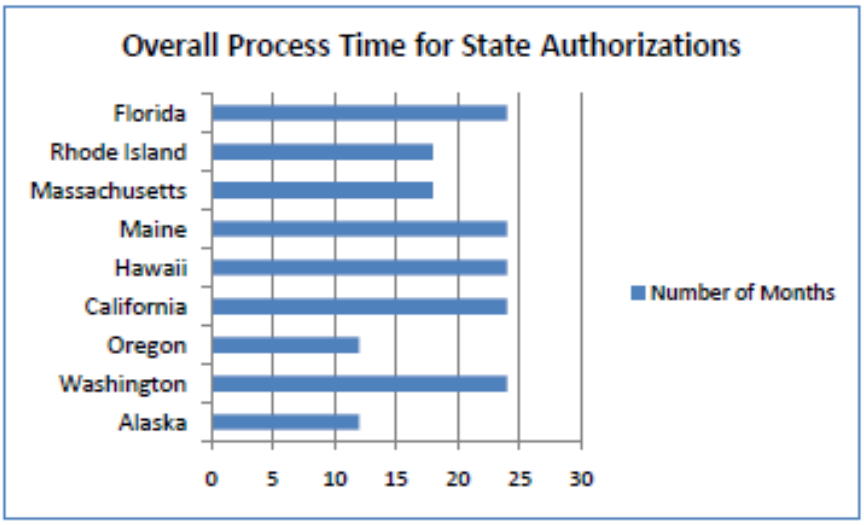
- Onshore components of hydrokinetic projects are likely to need local building permits, county wetlands permits, Land Use Determination authorizations, and/or zoning variances from county and city governments.
- If a project site includes, or is adjacent to, properties with historic buildings or structures, or is in an archaeologically sensitive area, including potentially archaeological resources that are beneath coastal waters, the Florida Division of Historical Resources performs a Section 106 National Historic Preservation Act Review during the National Environmental Policy Act review process for the proposed project.
- Pursuant to the Power Plant Siting Act (ss. 403.501 - 518, F.S.), DEP's Siting Coordination Office oversees state and local agencies' reviews of steam and solar electrical generating facilities of 75 MW and greater; the provisions of the Power Plant Siting Act do not apply to wave, tidal and ocean current projects.
- Under the Transmission Line Siting Act (403.52 - 403.5365, F.S.), the Siting Coordination Office is also responsible for coordinating reviews of cables that transfer power from production facilities to the electric grid. However, grid-connected hydrokinetic projects require a FERC license, which authorizes the facility and its transmission line(s). As such, hydrokinetic projects do not need to obtain the state Transmission Line Certification.

12.10 Florida Agency Contact Information

Agency	Web Address	Mailing Address	City	State	Zip	Phone
Department of Environmental Protection	https://floridadep.gov/	3900 Commonwealth Boulevard, M.S. 49	Tallahassee	FL	32399-3000	850.245.2118
DEP Office of Intergovernmental Programs	https://floridadep.gov/oip	3900 Commonwealth Boulevard, M.S. 47	Tallahassee	FL	32399-3000	850.245.2161
DEP Coastal Management Program	https://floridadep.gov/rcp/fcmp	3900 Commonwealth Boulevard, M.S. 47	Tallahassee	FL	32399-3000	850.245.2162
Fish & Wildlife Conservation Commission	http://myfwc.com/	Farris Bryant Building, 620 S. Meridian St.	Tallahassee	FL	32399-1600	850.488.4676

Appendix A: State Authorization Process Times

The purpose of this chart is to show the range of authorization process times among states based on the information in this document. Each bar on the chart depicts, by state, the total "best-case" expected time necessary for state agencies to review and issue decisions on their respective state authorizations for commercial scale, grid-connected hydrokinetic projects. These time frames reflect the review process from commencement to completion; however, they do not reflect time needed prepare application packages, which must be submitted in order for the review process to commence.[1]



As demonstrated in the chart above, process times for siting hydrokinetic facilities can vary significantly from state to state. Authorizations with particularly comprehensive review criteria or those which involve public comment periods and hearings inherently require more review time. For example, Washington, California, Hawaii, and Massachusetts each have "little NEPA" laws that provide for state agency environmental reviews. These state environmental review processes may extend the overall process time for several months or more.

Conversely, if a proposed project requires compliance with both a state environmental protection law and NEPA, it may be possible for the state and federal agencies to coordinate their environmental review processes. This type of coordination can provide for joint planning processes, joint environmental research and studies, joint public hearings, and preparation of joint environmental documents. If the environmental reviews occur separately, the state or federal environmental review process may utilize the documentation already prepared for the project instead of preparing duplicative documentation. For example, if NEPA documentation is prepared prior to the state's review *and* it complies with and fulfills the provisions of the state's environmental protection law, the State may choose to use the NEPA document in its review of the project. Further, NEPA expressly allows federal agencies to use environmental documents prepared by agencies with statewide jurisdiction.

In general, authorization process times are likely to be shorter in states with streamlined authorization procedures. California, Oregon, Washington, and Maine have each entered into MOUs with FERC to coordinate reviews of proposed hydrokinetic projects. These MOUs provide for state governments and FERC to implement key management measures, such as using joint schedules for authorization processing, as well as coordinated preparation and review of environmental documentation for proposed projects.

While each state's statutes and regulations influence the overall process time for hydrokinetic authorizations, the specific circumstances surrounding individual projects has the most impact on the time frame for reviewing authorization requests. Process times for particularly complex projects may be extended for several months or even

[1] These time frames reflect situations in which project proponents submit complete applications to the authorizing agency. Submittal of incomplete information will delay the review, prolonging overall process time.

years. Similarly, process times will likely be longer for projects proposed in areas that have numerous existing uses or areas with sensitive natural resources.

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