



Siting Methodologies for Hydrokinetics

Navigating the Regulatory Framework

Prepared by Pacific Energy Ventures, LLC on behalf of the U.S. Department of Energy
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Note

Various state and federal agency officials involved in the regulatory processes associated with siting hydrokinetic projects reviewed draft versions of this handbook and provided feedback on its accuracy, completeness and clarity. Reviewers were also asked to comment on how existing regulations apply specifically to hydrokinetics, and how the various authorizations connect to and integrate with each other. The feedback and recommendations provided by those who reviewed this document is greatly appreciated, and the content has been revised to reflect the reviewers' input as accurately as possible. While every effort has been made to ensure the accuracy of this document, readers should refer to official state and federal statutes, rules, and regulations and seek information from agency contacts to verify accuracy.

Readers should also keep in mind that this handbook provides a high-level summary of federal and state authorizations *most likely* to be applicable to hydrokinetic projects. 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 may also be applicable. Further, changes in statutes, rules, or regulations may have taken effect after publication of this handbook. Policy discussions are ongoing at all levels of state and federal government, and significant changes in the siting process are likely in the coming months and years.

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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 the renewable energy industry, the U.S. Department of Energy (DOE) is funding various market acceleration 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. In September 2008, DOE selected Pacific Energy Ventures (PEV) to implement a *Siting Methodologies* project that identifies regulatory issues associated with hydrokinetic development. A primary goal of this *Siting Methodologies* project is to help prepare hydrokinetic developers and stakeholders to work with regulatory officials to chart a reasonable course through the permitting process. To that end, this handbook is intended as an informational tool to support stakeholders in navigating the regulatory framework by providing clear, brief descriptions of the current federal and state regulatory requirements, outlining the authorization processes, and identifying the agencies involved in these processes.

1.1 Scope

This handbook describes regulatory procedures for siting hydrokinetic projects in state waters¹, which generally include the seabed, submerged lands, and waters extending three nautical miles seaward from shore.² The content includes the principle Federal authorizations for siting hydrokinetics, as well as the principle state authorizations for nine key states where hydrokinetic development is already underway or is likely to occur in the near future.

1.2 Handbook Organization

This handbook provides an overview of the federal and state regulatory framework for hydrokinetic projects. Federal authorizations for hydrokinetic projects are presented in Chapter 2, and the chapters that follow address applicable state authorizations for 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 process is also included, as applicable.

Each chapter begins with an *Introduction*, a *List of Acronyms*, and a *Summary Table of Authorizations*. Next, a description of each principle authorization is provided. These descriptions include the authorization's applicability to hydrokinetic projects, an overview 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 each 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 and state 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.

¹ The scope of this handbook does not include hydrokinetic development on the Outer Continental Shelf (OCS) because regulations for renewable energy on the OCS were not in place when this project commenced.

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

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.

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: those agencies responsible for coordinating with the action agency in reviewing the proposed action

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

Coordinating Parties: interested parties (such as tribal authorities, non-governmental organizations, or private citizens) who choose to participate in the consultation process of a project authorization

Relevant Agencies: may include, but are not limited to the following: FERC, MMS, COE, USFWS, NOAA, NMFS, USCG, BIA, EPA, NPS, USFS, ACHP, BOR, DOD, BLM, and tribal, state and local government authorities.

2 Fundamentals of the Regulatory Framework

Like most energy facilities, hydrokinetic projects are developed in phases. Site assessment is the first step, and once a site is selected the authorization (i.e., permitting and licensing) process begins. 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 alternative courses of action and/or mitigation measures 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 required will depend on the size, scale, and location of the proposed project. However, most authorization processes generally involve the following 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 circulates 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.⁵ 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 and stakeholders is a critical component of any licensing or permitting processes. Consultation generally involves analyzing a proposed project to determine the potential effects. It may also include developing effective studying and monitoring, mitigation, and adaptive management measures necessary to prevent, minimize and/or mitigate project effects. Consultation should start as early as possible to ensure that

⁵ Authorization approval may have conditions with which the project must comply, such as ongoing environmental studies and monitoring at the project site.

all issues are adequately addressed and that the environmental documentation contains sufficient information to support all the necessary authorizations.

Formal consultation is required by the regulatory procedures that guide an authorization process. This handbook describes how parties participate in formal consultation procedures for licensing and permitting hydrokinetics. 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.

2.3 Background on Federal Jurisdiction for Hydrokinetics

Traditionally, hydropower in the U.S. has been regulated primarily by the Federal Energy Regulatory Commission (FERC). However, development of new renewable energy technologies like hydrokinetics has necessitated new rules and regulations. The Energy Policy Act of 2005 (EPAcT) was signed into law on in August 2005, and one of its primary purposes was 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 of renewable energy on the Outer Continental Shelf (OCS).⁶ Specifically, EPAcT made FERC responsible for licensing, inspecting and overseeing environmental matters relating to hydrokinetic technologies. However, EPAcT also amended the Outer Continental Shelf Lands Act (OCSLA) to grant the Secretary of the

⁶ The OCS includes all submerged lands, subsoil, and seabed between the seaward extent of state waters and the seaward extent of U.S. jurisdiction (approximately 200 nautical miles from shore).

Interior discretionary authority to regulate the production, transportation, or transmission of renewable energy on the OCS. In March 2006, the Secretary delegated this new authority for renewable energy activities on the OCS to the Minerals Management Service (MMS), and the MMS subsequently developed rules for siting renewable energy projects on the OCS.

Essentially, EPAcT conferred regulatory authority for hydrokinetics to both FERC and MMS, but the law did not clearly specify the scope of each agency's jurisdiction. However, FERC and MMS collaborated to resolve the issue, and in April 2009, the Secretary of the Interior and the Chairman of FERC signed a Memorandum of Understanding (MOU) clarifying each agency's respective responsibilities for regulating renewable energy projects on the OCS.⁷

Under the agreement, FERC has the authority to issue licenses for all hydrokinetic projects—including those in state waters and on the OCS—and MMS has the authority to issue leases and easements for hydrokinetic projects located partially or wholly on the OCS. MMS and FERC also prepared a guidance document to explain and provide more detail about their respective roles in authorizing hydrokinetic activities on the OCS.⁸ As hydrokinetic projects are authorized, the guidance document will be updated to include additional information relating to requirements for project design, construction and operation

⁷ The MOU is available online: http://www.mms.gov/offshore/RenewableEnergy/PDFs/DOI_FERC_MOU.pdf

⁸ This guidance is available online: <http://www.ferc.gov/industries/hydropower/industry/hydrokinetics/pdf/mms080309.pdf>

3 Federal Authorizations

3.1 Introduction to Federal Agencies & Authorizations

As noted in the previous chapter, the **Federal Energy Regulatory Commission** (FERC) is responsible for licensing, inspecting and overseeing hydrokinetic projects. Depending on the proposed action, FERC may issue a Preliminary Permit or a Federal Hydroelectric License. A **Preliminary Permit** does *not* authorize construction or operation of a hydrokinetic project; rather, it gives the permit holder site priority for up to three years while project feasibility is determined. Project development activities are authorized by a **Federal Hydroelectric License**, which gives the licensee permission to construct and operate a hydrokinetic facility for the purposes of producing and transmitting electric power. FERC has various types of licensing processes for commercial scale, long-term projects, as well as a modified licensing process for pilot scale hydrokinetic projects, which provides for short-term testing of small scale projects that are removable or easily decommissioned.

Authorization from the **U.S. Army Corps of Engineers** (COE) is also required for siting hydrokinetic projects, even if the project does not require a FERC license.¹ A **Clean Water Act (CWA) § 404 Permit** is required for dredging associated with installing hydrokinetic facility components, such as subsea transmission cables and anchors. Also, structures placed in navigable waters (which could include all major components of a hydrokinetic facility), must be authorized by the COE with a **Rivers and**

Harbors Act § 10 Permit. Further, all obstructions to navigable waters must be marked to navigation aids, so hydrokinetic facilities will also need a **Private Aid to Navigation (PATON) Permit** from the **U.S. Coast Guard** (USCG).

In reviewing license and permit applications, federal action agencies like FERC and the 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 to provide documentation of that assessment. This process provides opportunities for agencies and stakeholders to review and comment on a proposed project and address environmental concerns and permitting issues. The 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 environmental protection statutes must be considered in regards to siting hydrokinetic projects. Pursuant to the **Magnuson-Stevens Fishery and Conservation Act** (MSA), project proponents must consult with the **National Marine Fisheries Service** (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 the **Fish and Wildlife Service** (FWS), regarding fish and wildlife impacts under the **Fish and Wildlife Coordination Act** (FWCA).

Under **§ 7 of the Endangered Species Act** (ESA), project proponents must also consult with NMFS and the FWS to evaluate impacts on

¹ Hydrokinetic projects that transmit power to the electric grid require a FERC license.

endangered species and critical habitats. Similarly, the **Marine Mammal Protection Act** (MMPA) requires project proponents to consult with NMFS and the FWS regarding potential impacts to marine mammals, and the **Migratory Bird Treaty Act** (MBTA) calls for consultation with the FWS regarding potential impacts to migratory birds. Impacts to the human environment, which includes commercial and recreation activities, as well as cultural and historic resources, must also be considered. For example, **§ 106 of the National Historic Preservation Act** (NHPA) requires federal action agencies to identify and assess potential effects on historic resources.

Finally, hydrokinetic projects must comply with two federally delegated statutes. Pursuant to **§ 307 of the Coastal Zone Management Act** (CZMA), federal actions (e.g., a FERC license) must be reviewed to ensure consistency with state coastal management policies. Additionally, **§ 401 of the Clean Water Act** (CWA) requires that federally authorized activities be reviewed to ensure they will not violate state water quality standards.

3.2 List of Federal Acronyms

ACHP	Advisory Council on Historic Preservation	LOA	Letter of Authorization
ALP	Alternative Licensing Process	MBTA	Migratory Bird Treaty Act
APE	Area of Potential Effect	MMPA	Marine Mammal Protection Act
BA	Biological Assessment	MOA	Memorandum of Agreement
BLM	Bureau of Land Management	MSA	Magnuson-Stevens Fishery Conservation Act
BO	Biological Opinion	MSRA	Magnuson-Stevens Fishery Conservation & Reauthorization Act
CFR	Code of Federal Regulations	NEPA	National Environmental Policy Act
COE	U.S. Army Corps of Engineers	NHPA	National Historic Preservation Act
DOE	U.S. Dept of Energy	NMFS	National Marine Fisheries Service
EA	Environmental Assessment	NOI	Notice of Intent
EFH	Essential Fish Habitat	NOAA	National Oceanic Atmospheric Administration
EIS	Environmental Impact Statement	NPS	National Park Service
EPA	Environmental Protection Agency	OCS	Outer Continental Shelf
EPAct	Energy Policy Act of 2005	PAD	Preliminary Application Document
ESA	Endangered Species Act	PATON	Private Aids to Navigation
FERC	Federal Energy Regulatory Commission	ROW	Right-of-Way
FR	Federal Register	RPA s	Reasonable and Prudent Alternatives
FONSI	Finding of No Significant Impact	THPO	Tribal Historic Preservation Office
FPA	Federal Power Act	SHPO	State Historic Preservation Office
FWCA	Fish and Wildlife Coordination Act	TLP	Traditional Licensing Process
FWS	U.S. Fish and Wildlife Service	USCG	U.S. Coast Guard
HPMP	Historic Properties Management Plan	USFS	U.S. Forest Service
IHA	Incidental Harassment Authorization		
ILP	Integrated Licensing Process		
ITS	Incidental Take Statement		

3.3 Summary Table of Federal Authorizations

Permit/Approval	Primary Legal Authority	Lead Agency	Other Agencies ¹⁰	Anticipated Process Time
Federal Hydroelectric License	Federal Power Act, Energy Policy Act of 2005	FERC	COE, MMS, USFWS, NOAA, USCG, BIA, EPA, NPS, USFS, ACHP, USGS, BLM; tribal governments; other relevant federal, state, and/or local agencies	1-4 years
Preliminary Permit				At least 60 days
CWA § 404 Permit	§ 404 Clean Water Act	COE	EPA, USFWS, NMFS	60-120 days, more if EIS needed
COE § 10 Permit	§ 10 Rivers & Harbors Act	COE	USFWS, NMFS	60-120 days, more if EIS needed
Private Aids to Navigation Permit	Coast Guard Regulations	USCG	COE, state resource agencies	Average 3 months
NEPA Analysis (ROD, FONSI, Categorical Exclusion)	National Environmental Policy Act	FERC	EPA, NOAA, other relevant federal and state agencies	2-6 months EA, 1yr EIS ¹¹
§ 7 ESA Consultation¹²	Endangered Species Act	NMFS, USFWS	FERC, COE, USCG, NMFS	135+ days ¹³

¹⁰ 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.

¹¹ Process time is per NEPA document; multiple NEPA documents may be required.

¹² One coordinated review may occur, but multiple ESA consultations could be required.

¹³ Process time is per consultation; multiple consultations may be required.

Permit/Approval	Primary Legal Authority	Lead Agency	Other Agencies	Anticipated Process Time
Marine Mammal Consultation	Marine Mammal Protection Act	NMFS & USFWS	None specified	120 days or 6-24 months ¹⁴
Essential Fish Habitat Assessment	Magnuson-Stevens Act	NMFS	Regional Fisheries Management Council	30-60 days ¹⁵
Fish and Wildlife Coordination Act Consultation	Fish and Wildlife Coordination Act	USFWS	FERC, NMFS, others	Varies
Migratory Bird Consultation	Migratory Bird Treaty Act	USFWS	FERC, COE, state resource agencies	Varies
§ 106 NHPA Consultation	National Historic Preservation Act	Advisory Council on Historic Preservation	FERC, COE, state resource agencies	At least 30 days for each stage of consultation ¹⁶
CZMA Federal Consistency Determination	§ 307 Coastal Zone Management Act	Designated State Agency	Relevant federal and state agencies	up to 6 months
Water Quality Certification	§ 401 Clean Water Act	Designated State Agency	Relevant federal and state agencies	1 year ¹⁷

¹⁴ Process time will vary depending on complexity and the NEPA documentation required.

¹⁵ Process time may vary if the review is concurrent with an ESA Biological Opinion.

¹⁶ NHPA Consultation stages: (1) Concurrence on APE; (2) No adverse effect to cultural resources; and/or (3) Concurrence on mitigation measures.

¹⁷ State agencies are often unable to make a certification decision within the one year review period. This is explained in detail within the CWA 401 section of this chapter.

3.4 Federal Hydroelectric License

A Federal Hydroelectric License, which may be issued for a term of up to 50-years, gives the licensee authority to construct and operate a hydroelectric project for the purposes of producing and transmitting electric power. There are three main licensing processes: Integrated Licensing Process (ILP), Traditional Licensing Process (TLP), and Alternative Licensing Process (ALP).¹⁸ Although the default licensing process is the Integrated Licensing Process (ILP), this handbook focuses on utilizing the TLP and a Settlement Agreement (SA) for hydrokinetic projects.¹⁹

This approach is depicted because it allows for a higher level of stakeholder involvement in project planning and siting. Specifically, utilizing the TLP in conjunction with a SA provides a framework within which all parties can collaboratively discuss and address the issues associated with a proposed project. Parties to settlement then have the opportunity to develop effective studying and monitoring, mitigation, and adaptive management measures to account for these issues during project construction, operations, and decommissioning.

In addition to the ILP, TLP and ALP, the ***Hydrokinetic Pilot Project Licensing Process*** was recently established, which is a modified

licensing process designed to provide an opportunity to prove emerging hydrokinetic technology devices, determine appropriate sites, and gather information on environmental and other effects of the devices while maintaining oversight and agency input. Projects eligible to use this process must be small, short-term, removable or able to shut down on short notice, and may not be located in waters with “sensitive designations.” Projects licensed under this pilot process will have rigorous environmental monitoring and safeguards.²⁰

Lead Agency: The Federal Energy Regulatory Commission (FERC) is an independent agency that regulates the interstate transmission of electricity, natural gas, and oil. All hydrokinetic projects that produce and transmit energy to the electric grid must be licensed by FERC. FERC’s extensive licensing system provides the framework for obtaining many other local, state, tribal, and federal approvals.

Review Process: The first phase of the licensing process is the “Pre-Filing” process. Pre-Filing officially begins when a project proponent files a Notice of Intent (NOI) and a Draft License Application (DLA), which should include a proposed monitoring plan. After receiving these documents, FERC will issue a notice to announce the availability of the NOI and DLA for review and will solicit tribal consultation. A comment period will follow, during which time agencies, stakeholders and interested parties have the opportunity to file comments on the proposed project. If necessary, FERC may hold

¹⁸ The ILP is the default process. A license applicant must request FERC to approve the use of the TLP or ALP.

¹⁹ If another type of FERC licensing process (i.e., the ILP or ALP) is used then the sequence of events and timeframes will vary from those outlined in this document. Also, if a Conditioned License is issued, then some of the required authorizations (e.g., 401 Water Quality Certification, CZM Consistency Determination) may not be issued until after the conditioned FERC license is issued.

²⁰For detailed information, including the *Hydrokinetic Pilot Project Criteria and Draft Application Checklist*, please refer to FERC’s website <http://www.ferc.gov/industries/hydropower/industry-act/hydrokinetics/energy-pilot.asp>

a public meeting or technical conference for further review of the DLA. After the comment period and public meeting (if applicable), FERC will notice the conclusion of the Pre-Filing process and will make a decision on the requested process plan (i.e., TLP, ILP, ALP).

The next phase of the licensing process is called “Post-Filing” because the activities occur after the license application is filed. The applicant will file the license application, which should include a revised monitoring plan (per the pre-filing comments and recommendations), a draft Biological Assessment (DBA), and the CZMA and 401 applications. After receiving the license application, FERC will conduct NEPA Scoping to determine whether (1) the proposed action is categorically excluded from detailed environmental review, or (2) the proposed activity requires a detailed environmental review and documentation that includes likely environmental effects and possible alternative actions. During the NEPA Scoping period, FERC will issue a Ready for Environmental Analysis (REA) Notice, and agencies and stakeholders can file recommendations, conditions, and comments on the application.

If a categorical exclusion does not apply, then FERC prepares either an Environmental Assessment (EA) or an Environmental Impact Statement (EIS), depending on the quantity and complexity of the issues identified during scoping.²¹ Also, pursuant to § 10(j) of the FPA, FERC must include measures to protect fish and wildlife resources and to mitigate damages to those resources that may be affected by a project. These measures are based on recommendations from the NMFS, FWS, and

state fish and wildlife agencies.²² A FERC license application must include a summary of the recommendations, a discussion of how the applicant addressed the recommendations, and an explanation of how the proposed project complies with section 10(j) of the FPA.

Once the environmental documentation is complete, FERC will issue the Draft EA/EIS for review and agencies and other parties may submit comments on it. After responding to comments and resolving any issues that come up, FERC will issue a Final EA/EIS. Once the Final EA/EIS is complete, FERC will issue the license order.

In addition to the FERC license and environmental permitting requirements, project proponents must also obtain land rights and other authorizations needed to construct, operate, and maintain the hydroelectric project. Applicants must provide evidence of compliance with all applicable state and local requirements before implementing an action authorized by a FERC license.

Consultation: Consultation periods and procedures will vary depending on the type of process used and the size and scope of the project. Each of the licensing processes will entail a substantial level of consultation. Please refer to FERC’s *“Handbook for Hydroelectric Project Licensing”* for details.²³

Process Time: Varies depending on project size, location, and the type of licensing process. Under the ILP, pre-filing consultation and studies are generally conducted over two to three years. Once a license application is

²¹ FERC may prepare a single EA, or a draft and a final EA depending on the scope of the issues.

²² Pursuant to the Fish and Wildlife Coordination Act.

²³ http://www.ferc.gov/industries/hydropower/gen-info/handbooks/licensing_handbook.pdf

deemed complete, it generally takes one to two years for issuance of an original license. For pilot projects, FERC has indicated that a license may be issued within six to twelve months from the filing of a complete application.²⁴

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

3.5 Preliminary Permit

Before seeking a hydroelectric license, a project proponent has the option of first applying for a preliminary permit.²⁵ A preliminary permit, issued for up to three years, maintains priority to apply for a license on that site while the permit holder determines the project's feasibility, consults with stakeholders, performs baseline studies and prepares to apply for a license. However, a preliminary permit 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. 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 are key factors in successful project development.

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.²⁶ When a

²⁴ Federal Energy Regulatory Commission. White paper on Hydroelectric Pilot License Process, April 14 2008.

²⁵ Although the Preliminary Permit is included in this handbook, it is not required for submission of a FERC license application.

²⁶ <http://www.ferc.gov/industries/hydropower/industry-act/hydrokinetics.asp>

project proponent applies for a preliminary permit, all relevant agencies should be notified.

Consultation: Formal consultation is not required when applying for a preliminary permit. However, anyone may submit comments or a motion to intervene in accordance with the requirements of Rules of Practice and Procedure.²⁷ FERC will consider all comments filed in making its decision 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 proceeding. Any 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.

Once the preliminary permit has been granted, the project proponent must submit regular reports to FERC including a schedule of activities and target dates and periodic, detailed reports on the status of its studies. FERC's "strict scrutiny" approach to issuing preliminary permits for hydrokinetic projects may mean that permit holders will be required to comply with additional performance criteria. Detailed information about preliminary permit filing requirements and commenting procedures is available on the FERC website.²⁸

Process Time: At least 60 days.

Legal Authority: *Federal Power Act (Title 18 CFR), § 4(f) of the FPA*

²⁷ 18 CFR §§ 385.210, 211, and 214.

²⁸ <http://www.ferc.gov/industries/hydropower/gen-info/licensing/pre-permits.asp>

3.6 Clean Water Act § 404 Permit

Enacted to conserve and restore the quality of the nation's waterways, § 404 of the Clean Water Act (CWA) requires authorization for dredge and fill activities for activities in waters of the U.S., including certain wetlands. The § 404 permit program is administered jointly by EPA and the Army Corps of Engineers (COE).

Lead Agency: The COE handles the actual issuance of permits, and it determines whether a particular area of land is a wetland or water of the U.S. The COE also has primary responsibility for ensuring compliance with permit conditions, although EPA plays a role in compliance and enforcement.²⁹ Other agencies involved in reviewing applications for and ensuring compliance with § 404 permits include NMFS, FWS, and state agencies.

The COE can authorize dredge and fill activities 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, the COE will make a determination on what type of permit review and authorization is appropriate. Authorizations expire 2-5 years from the date of issuance; however, they may be renewed if the COE is notified at least one month prior to expiration.³⁰ 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 § 404 permit.

²⁹ For example, EPA can object to COE issuance of a 404 permit if serious disagreements arise.

³⁰ The permit renewal process will take into account whether significant changes have occurred to the project area or facility.

Consultation: In its application review, the COE will consult 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, the COE will provide a 15 to 30 day public notice period. Also, the 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 the COE must consult with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) before issuing an authorization.³¹ Additionally, the project applicant may be required to submit a Biological Evaluation.³²

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

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

3.7 Rivers & Harbors Act § 10 Permit

The Rivers and Harbors Act expressly prohibits the obstruction or alteration of navigable waters of the U.S.. As such, any structures or activities (e.g., anchoring cables, aids to navigation) occurring in or affecting the navigable waters of the U.S., including the

³¹ <http://www.fws.gov/laws/lawsdigest/ESACT.html>

³² 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.

Territorial Seas and the Outer Continental Shelf,³³ are subject to authorization by the Army Corps of Engineers (COE).

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

The 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, the 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 aids are approved by and installed in accordance with requirements of the U.S. Coast Guard (33 CFR § 330.5(a)(1)). However, if the COE can exercise its authority through mandatory FPA § 4(e) conditions to the license, it is possible that structures and activities that are part of a project authorized by a FERC license may not require a § 10 permit.³⁴

Consultation: The Fish and Wildlife Coordination Act (16 USC § 2901 et seq) authorizes the USFWS to review and comment on the effects of fish and wildlife of activities proposed to be undertaken or permitted by the

COE.³⁵ Therefore, if a project may affect threatened or endangered species (or their designated critical habitat), then the 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, the COE will provide a 15- to 30-day public notice period. Also, the COE must provide notice of and opportunity for public hearings before issuing a permit.

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

Legal Authority: § 10 *Rivers and Harbors Act (33 USC § 403); 33 CFR § 322, Permits for Structures or Work in or Affecting Navigable Waters of the United States.*³⁶

3.8 Private Aids to Navigation Permit

Because hydrokinetic devices are located in the marine environment, these projects will need to comply with U.S. navigation standards. Before deploying any structure, the owner/operator must apply 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 *Private Aids to Navigation (PATON)*.

Lead Agency: The United States Coast Guard (USCG) is responsible for PATON permitting.

³³ Areas that are leased from the MMS may or may not require a Section 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)

³⁴ Since "Section 4(e) of the Federal Power Act provides for approval of plans for hydroelectric power projects", this approval by FERC "normally will obviate the need for a Department of Army permit under section 10 of the 1899 River and Harbor Act." 33 CFR § 221(f)(1).

³⁵ 16 USC § 661-667e.

³⁶ Describes the special policies, practices and procedures to be followed by the COE in review of applications for a § 10 Permit <http://www.fws.gov/laws/lawsdigest/riv1899.html>

However, the COE will likely be involved in reviewing proposed projects that need a PATON permit because the COE must approve the project's § 404 and § 10 permits *before* navigational aids will be considered.

Review Process: In order 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.³⁷

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*³⁸

3.9 NEPA Analysis & Documentation

The purpose of the National Environmental Policy Act (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.³⁹

³⁷ www.uscg.mil/d13/dpw/docs/PATONGuide12Jul06.pdf

³⁸ Part 62 defines U.S. Aids to Navigation System; Part 64 explains the required Marking of Structures; and Part 66 authorizes the USCG to regulate PATON.

³⁹ <http://www.epa.gov/Compliance/nepa/index.html>

Lead Agency: The federal action agency for the proposed project will be the lead agency for the NEPA process. For grid-connected hydrokinetic projects, 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 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.⁴⁰

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 will prepare a Scoping Document (SD) 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 activity requires a detailed environmental

⁴⁰ http://www.ferc.gov/industries/hydropower/gen-info/guidelines/eaguide.pdf#xml=http://search.ato.mz.com/search/pdfhelper.tk?sp_o=2,100000,o

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 Environmental Assessment (EA) or an Environmental Impact Statement (EIS), depending on the quantity and complexity of the issues identified during scoping.

If substantial issues are not identified in the scoping process, agency staff will prepare an EA indicating that project is not likely to have significant effects, along with a Finding of No Significant Impact (FONSI). If substantial issues are identified, the agency will prepare an EIS.⁴¹ 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 and the public. Government agencies participate officially as either the action agency or a cooperating agency.⁴² It is important that applicants consult with all relevant agencies *before* to preparing NEPA documentation. For example, project proponents should consult with the 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 EIS. 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.

⁴¹ 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.

⁴² CEQ Regulations § 1501.6.

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.⁴³

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 §§1500-1508.*

⁴³ Intervening to become a party to the proceeding is a required step to establishing legal standing. Intervenor can still provide substantial review and recommendations for NEPA analyses, which the action agency can address at its discretion.

3.10 Endangered Species Act § 7 Consultation

The Endangered Species Act (ESA) is a federal statute designed to protect and conserve endangered and threatened fish, wildlife, and plant species and their habitats.

Lead Agency: The 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, the U.S. Forest Service (USFS), NPS, and other relevant agencies may also participate in an ESA consultation for a proposed hydrokinetic project.

Pursuant to § 7 of the ESA, 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.”⁴⁴ 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.

⁴⁴http://www.fws.gov/endangered/consultations/sec7_faq.html

Consultation⁴⁵: Generally, an applicant will prepare a draft biological assessment (BA)⁴⁶ under the supervision of the action agency⁴⁷ and in cooperation with the Service. Once complete, the applicant will submit 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.⁴⁸

⁴⁵ 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.

⁴⁶ The BA must be completed within 180 days after its initiation. 50 CFR § 402.12(i).

⁴⁷ 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).

⁴⁸ 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

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 (ITS) 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.⁴⁹

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” (RPAs) to the action that would prevent adverse impacts. Issuance of the BO concludes formal consultation. If no RPA can be developed, the action cannot move forward. However, the applicant or the action agency may apply to the ESA Committee for an exemption from the results of the ESA § 7 consultation.⁵⁰

Process Time: 135 days, with extensions that can allow the process to last a year or more.⁵¹

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).

⁴⁹ If a marine mammal is listed as a threatened or endangered species under the ESA, an MMPA 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.

⁵⁰ See 50 CFR § 450.

⁵¹ Details on duration and extension of formal consultation may be found in 50 CFR § 402.14(e).

Legal Authority: § 7 of the Endangered Species Act (16 USC § 1536)⁵²

3.11 Marine Mammal Consultation

The Marine Mammal Protection Act (MMPA) makes it illegal to “take” or “harass” any marine mammal without prior authorization.⁵³ 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 will perform 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 will prepare its own NEPA document for the issuance of an MMPA permit.

An *Incidental Harassment Authorization (IHA)* authorizes harassment to marine mammals from short-term activities as long as impacts on the species or stock are negligible. An IHA is

⁵² <http://www.epa.gov/lawsregs/laws/esa.html>

⁵³ Take is defined as harassing, hunting, capturing, or killing, or attempting to harass, hunt, capture, or kill any marine mammal. Harassment is defined as any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or to disrupt a marine mammal’s behavior patterns (i.e., migration, breathing, nursing, breeding, feeding, or sheltering).

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 is required to comply with an IHA.

A *Letter of Authorization (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 Federal Register, 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 will then prescribe 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 months⁵⁴

Legal Authority: Section 101(a)(5)(A)-(D) of the *Marine Mammal Protection Act (16 USC § 1361 et seq)*⁵⁵

3.12 Essential Fish Habitat Assessment

One of the primary purposes of the Magnuson-Stevens Fishery and Conservation Act (MSA) is to promote the protection of essential fish habitat (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.⁵⁶

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

⁵⁴ 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.

⁵⁵ http://www.nmfs.noaa.gov/pr/pdfs/laws/mmpa_regs_216.pdf

⁵⁶ Stakeholders should contact their regional Fishery Management Council for information on EFH in the area. <http://www.nmfs.noaa.gov/councils.htm>

affect (i.e., reduce the quality or quantity of) EFH. Regional Fisheries Management Councils and the federal action agency will also be 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.⁵⁷

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.⁵⁸ Any EFH that may be affected by a proposed project must be documented in the EA/EIS that accompanies a FERC license application.⁵⁹ 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

⁵⁷ MSA §305(b)(2).

⁵⁸ A Guide to EFH Consultation is available online www.nmfs.noaa.gov/habitat/habitatprotection/pdf/efh/EFH%20Consultation%20Guidance%20v1-1.pdf

⁵⁹ The consultation process may be streamlined by consolidating, where appropriate, environmental review procedures required by other statutes such as NEPA. If an ESA biological opinion (BO) is required for the proposed project, NMFS will often include its EFH recommendations in the BO.

Once the EFH assessment is complete, NMFS will provide *Conservation Recommendations*. If NMFS finds that the proposed project would adversely impact any EFH, then it will recommend 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);⁶⁰ Magnuson-Stevens Fishery Conservation & Management Reauthorization Act (MSRA).⁶¹

3.13 Fish & 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 construction, maintenance, and operation of a facility is in

⁶⁰ MSA § 306 gives authority to the states of Washington, Oregon, and California to manage the Dungeness Crab Fishery. See note, 16 USC § 1856.

⁶¹ 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.

accordance with the FWCA to prevent the loss of or damage to fish or wildlife resources.

Lead Agency: The USFWS 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 & Wildlife Coordination Act (16 USC § 2901 et seq)*⁶²

3.14 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 U.S., Mexico, and Central and South America. The original Migratory Bird Treaty Act of 1918 (MBTA) implemented the 1916 Convention between the U.S. and Great Britain (for Canada) for the protection of migratory birds. Later amendments to the MBTA implemented treaties between the U.S. and Mexico, the U.S. and Japan, and the U.S. and Russia.

Lead Agency: The USFWS 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

⁶²<http://www.fws.gov/laws/lawsdigest/fwcoord.html>

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)*

3.15 National Historic Preservation Act § 106 Consultation

The National Historic Preservation Act (NHPA) requires each federal agency to identify and assess the effects of its actions or actions it authorizes on historic resources.⁶³ The NHPA also requires federal agencies to afford the Advisory Council on Historic Preservation (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 State Historic Preservation Office (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 the ACHP,

⁶³<http://www.achp.gov/aboutachp.ht#1>

the USFS, 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 will seek concurrence from the SHPO or the ACHP at each stage of analysis under the NHPA.⁶⁴

I. Initiation of Consultation (60 days)- First, the action agency initiates a 30-day consultation period with other relevant agencies to identify 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.⁶⁵ Concurrence on project APE is then sought from the SHPO, tribal governments, and other agencies involved. If no historic properties are present or if listed properties will not be affected, then the action agency notifies the SHPO. The § 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 § 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 the 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)⁶⁶ 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).

FERC typically incorporates the PA (or MOA) into the project license, which defines the APE and requires the licensee to develop and implement a Historic Properties Management Plan (HPMP)⁶⁷ 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 the 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.

⁶⁴ The federal action agency must take the objection or opinion of the other agencies into account but may still proceed based on its finding.

⁶⁵ 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.

⁶⁶ Others may be invited to join the MOA, but if they fail to do so then the MOA stands.

⁶⁷ The HPMP is often completed before a FERC license is issued, but may be developed post-licensing.

In general, it takes approximately 12 months for an MOA and approximately 24 months for a PA.

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

3.16 CZMA Federal Consistency Determination

Section 307 of the Coastal Zone Management Act (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 Ocean and Coastal Resource Management (OCRM) program at NOAA provides a general overview of the federal consistency review requirements and procedures on its website.⁶⁸ 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.⁶⁹

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.⁷⁰ Certification generally consists of four main phases:

- i. Applicant prepares consistency certification along with necessary data and information⁷¹;
- ii. State agency performs an application completeness review;
- iii. State agency conducts the consistency review;
- 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

⁶⁹ NOAA's Office of Ocean and Coastal Resource Management (OCRM) will provide mediation in the case of a CZMA dispute.

⁷⁰ Federal consistency review requirements and procedures are detailed in 15 CFR § 930.

⁷¹ 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.

⁶⁸ <http://coastalmanagement.noaa.gov/consistency/welcome.html>

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)

3.17 Clean Water Act § 401 Water Quality Certification

The purpose of § 401 of the Clean Water Act (CWA) is for states to use the water quality certification 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 U.S. 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.⁷²

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

⁷² Applicants for a FERC license must file evidence of a request for water quality certification with FERC within 60 days of FERC's notice requesting terms, conditions, and recommendations.

with the applicable water quality standards and provisions.

Certification: A § 401 Water Quality Certification (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.⁷³ 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 water quality certification, 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.

⁷³ 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.

Process Time: States are provided one year to issue a certification decision. However, State agencies are often unable to make a certification decision within one year because the administrative record is inadequate to support issuance of a certification. In such a case the state agency will often give applicants the option of letting the state make a “reasonable assurance” determination. This action allows the applicant to withdraw and resubmit the application once it contains adequate information. If the applicant does not choose to withdraw and resubmit the application, then the state agency will have to deny the certification request. In either case, one year review period starts over. It is possible for this process to repeat several times before the state agency has an administrative record that will support WQC.

Legal Authority: *Clean Water Act § 401 (33 USC § 1341)*⁷⁴

3.18 Authorizations Relating to Federally Managed Lands⁷⁵

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 the National Park Service (NPS),

the U.S. Forest Service (USFS), the Bureau of Land Management (BLM), the Bureau of Reclamation (BOR), the Bureau of Indian Affairs (BIA), or the Department of Defense (DOD), then additional federal regulations and guidelines may apply.

Under § 4(e) of the Federal Power Act, 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 (e.g., Department of the Interior (DOI)) 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 jurisdiction of the NPS.

Further, § 6(f) of the Land and Water Conservation Fund (L&WCF) Act ensures that federal investments in L&WCF assistance are maintained in public outdoor recreation use. Therefore, NPS-managed land cannot be converted from public recreation use to use for other purposes unless the NPS approves it.⁷⁶

The Bureau of Reclamation 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,

⁷⁴ <http://www.epa.gov/lawsregs/laws/cwa.htm>

⁷⁵ 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.

⁷⁶ 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. See 40 USC § 550 (b), (e); 41 CFR § 102-75.625 through 75.690.

facilities, and water surfaces.⁷⁷ The BOR will grant use authorizations only when the proposed use is compatible with BOR purposes and is consistent with applicable Resource Management Plans; further, the 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.

The Bureau of Indian Affairs 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 Act⁷⁸ authorizes the DOI to enter into "Tribal Energy Resource Agreements" with Indian tribes. Together, the 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.

⁷⁷ Directives and Standards, LND 08-01.

⁷⁸ Title V of the Energy Policy Act (EPAct) of 2005.

3.19 Federal Authorizations Roadmaps

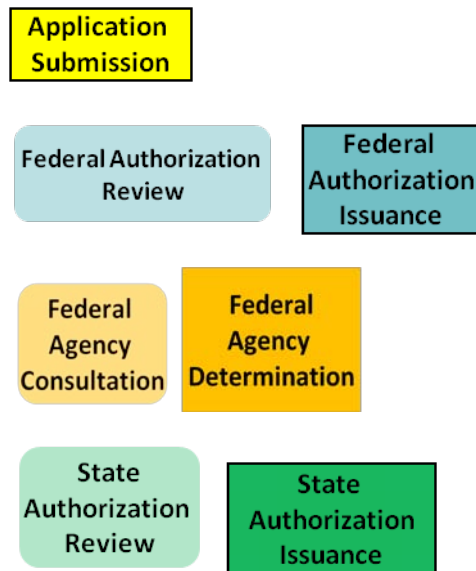
The following roadmaps are process schematics which show the approximate timing and sequence of the principle federal licensing, permitting and environmental review processes involved in siting hydrokinetic projects. The roadmaps represent three scales of project development:

3-A Non-Grid Connected, Pilot Project: Small-scale hydrokinetic projects that are not connected to the electric grid do not require a license FERC, as no electricity is being transmitted. Projects of this scale are generally used for the purposes of testing and collecting data on device performance in the marine environment. This roadmap shows all the principle federal authorization processes *except* the FERC licensing process. In this situation, the COE would be the lead federal agency for the project NEPA review.

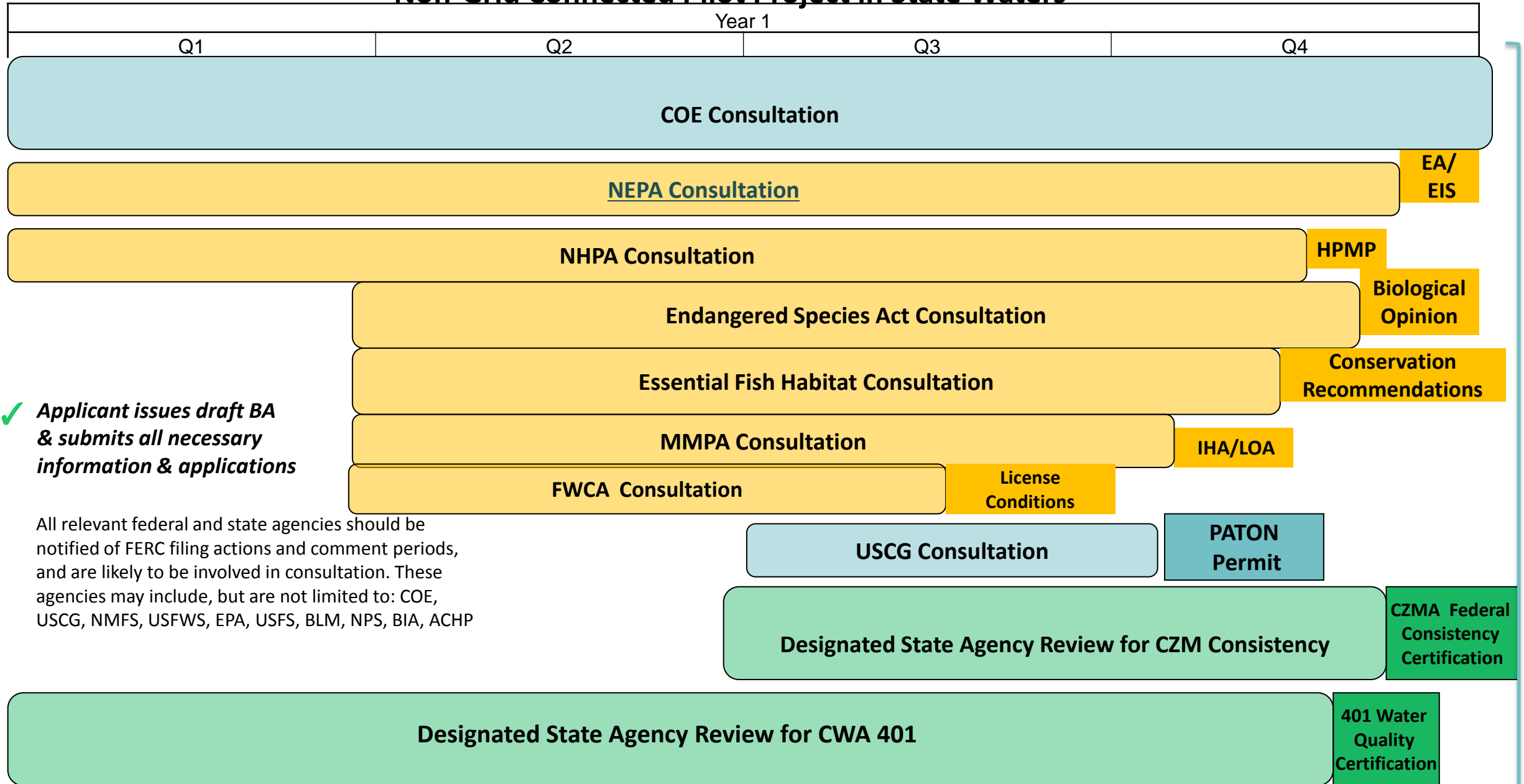
3-B Grid Connected, Pilot Project: Small-scale hydrokinetic projects that are connected to the electric grid may also be used to test and collect data on device performance in the marine environment. Since the project would be transmitting electricity, a FERC license is required. However, small-scale projects may be licensed under the FERC Pilot Process. This roadmap shows all the principle federal authorization processes, including the FERC Pilot Process. In this situation, FERC would be the lead federal agency for the project NEPA review.

3-C Grid Connected, Commercial Project: Commercial-scale hydrokinetic projects produce and transmit large amounts of electricity. This roadmap shows all the principle federal authorization processes, including the FERC Traditional License Process with Settlement Agreements. In this situation, FERC would be the lead federal agency for the project NEPA review.

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



Non-Grid Connected Pilot Project in State Waters



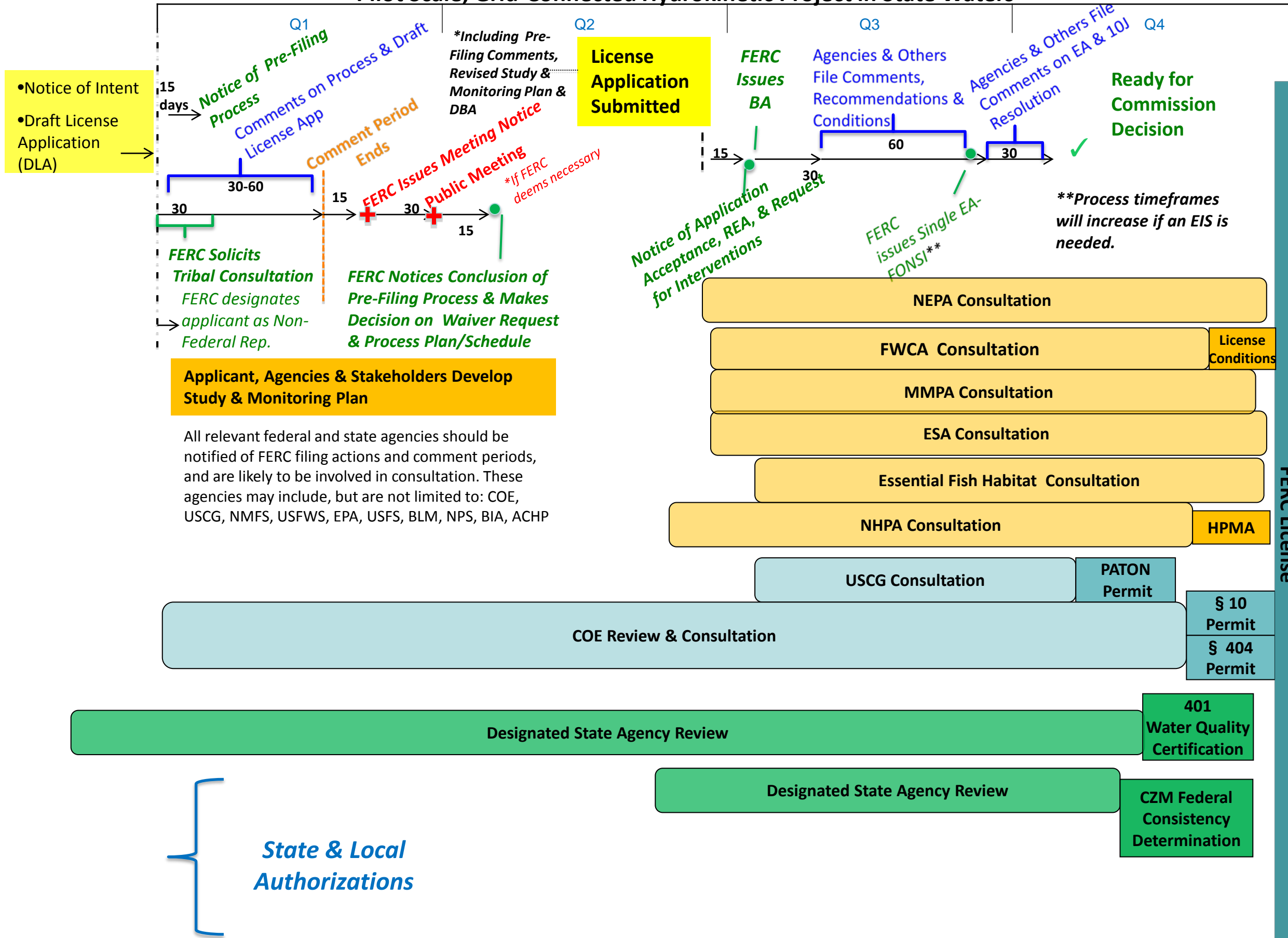
✓ **Applicant issues draft BA & submits all necessary information & applications**

All relevant federal and state agencies should be notified of FERC filing actions and comment periods, and are likely to be involved in consultation. These agencies may include, but are not limited to: COE, USCG, NMFS, USFWS, EPA, USFS, BLM, NPS, BIA, ACHP

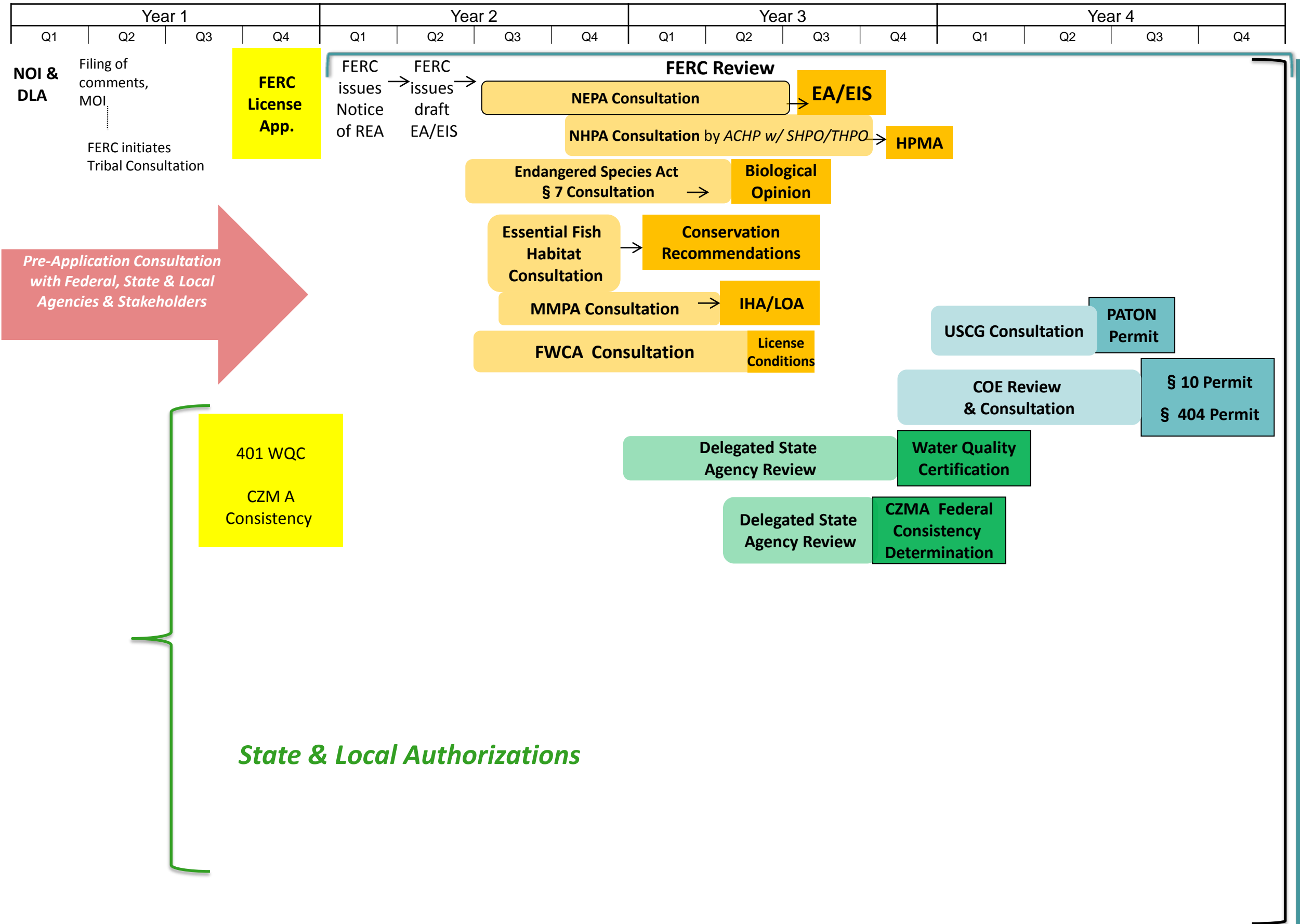
COE 404 & Section 10 Permits

State & Local Authorizations

Pilot Scale, Grid-Connected Hydrokinetic Project in State Waters



Commercial Hydrokinetic Project in State Waters



3.20 Federal Agency Contact Information

Agency	Web Address	Address	City	State	Zip	Phone
Advisory Council on Historic Preservation	www.achp.gov	1100 Pennsylvania Ave. NW, Ste 803, Old Post Office Building	Washington	D.C.	20004	202-606-8503
Bureau of Land Management	www.blm.gov	1849 C St. NW, Rm. 5644	Washington	D.C.	20004	202-208-5010
Environmental Protection Agency	www.epa.gov	Ariel Rios Building 1200 Pennsylvania Avenue, N.W.	Washington	D.C.	20004	202-272-0167
Federal Energy Regulatory Commission	www.ferc.gov	888 First St., NE	Washington	D.C.	20426	202-502-6769
National Marine Fisheries Service	www.nmfs.noaa.gov	1315 East West Highway	Silver Spring	MD	20910	301 713-2334
National Oceanic Atmospheric Administration	http://coastalmangement.noaa.gov/backmatter/contacts.htm	1315 East West Highway	Silver Spring	MD	20910	301-713-3155 x200
State Historic Preservation Office	http://www.achp.gov/shpo.html#top	Differs By State				
Tribal Historic Preservation Office	http://www.achp.gov/shpo.html#top	Differs By State				
U.S. Army Corps of Engineers	www.usace.army.mil	441 G. Street, NW	Washington	D.C.	20314-1000	202-761-5903
U.S. Coast Guard	www.uscg.mil/	2100 Second Street, SW,	Washington	D.C.	20593	By District
U.S. Dept of Energy	www.energy.gov	1000 Independence Ave., SW	Washington	D.C.	20585	800-342-5363
U.S. Fish and Wildlife Service	www.fws.gov	4401 North Fairfax Drive ARLSQ 840	Arlington	VA	22203	703-358-2161
U.S. Forestry Service	www.fs.fed.us	1400 Independence Ave., SW	Washington	D.C.	20250	800-832-1355
United States Geological Survey	www.usgs.gov	12201 Sunrise Valley Drive	Reston	VA	20192	703-648-4000

4 Alaska

4.1 Introduction to Alaska Agencies & Authorizations

Alaska has three state agencies primarily responsible for managing its natural resources: the **Department of Natural Resources** 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** serves to safeguard the public health and environment from human uses; and the **Department of Fish and Game** manages the state's fish and wildlife and their habitats. Each of these agencies has authority to permit specific activities. However, Alaska has coordinated the permitting process so that if a project requires authorization from more than one state agency or authorization from a federal agency, applicants have a single point of contact.

This single point of contact is the **Division of Coastal and Ocean Management** (DCOM), within the DNR. DCOM is responsible for the overall administration and operation of the Alaska Coastal Management Plan (ACMP). In this role, DCOM provides assistance to applicants, coastal districts, and state agencies carrying out their duties and responsibilities under the ACMP. DCOM uses a multiple agency, coordinated system for reviewing and coordinating all resource-related permits required for projects in or affecting coastal areas of Alaska. This system, called "project consistency review," is based on the ACMP.⁷⁹ Proposed projects are reviewed to determine consistency with both the standards of the ACMP and the enforceable policies of approved

district coastal management programs. Another federally delegated authorization that will likely be required for hydrokinetic projects is the Clean Water Act § 401 Water Quality Certification (WQC). The **Department of Environmental Conservation** (DEC) is the lead agency for WQC for projects requiring a FERC license.

The Alaska **Department of Fish and Game, Division of Habitat** (Habitat) works to preserve the state's fish and wildlife resources by protecting the areas they need to complete their life cycles. Habitat generally reviews and authorizes instream activities; however, depending on the site and specifications, hydrokinetic projects could require a permit. Project proponents are encouraged to contact the Habitat office with geographic responsibility for a particular project site to assist with determinations on permit requirements.

In addition to the state agencies responsible for resource management, coastal districts also have resource management authority. Coastal districts are generally local governments, such as cities and boroughs, which contain a portion of Alaska's coastal area. In coastal areas outside the boundaries of local government, coastal districts called Coastal Resource Service Areas (CRSA) may be formed. Most coastal districts develop a coastal management program that contains enforceable policies to guide development affecting the coastal resources within its boundaries. Approved district coastal management programs are incorporated into the ACMP.

⁷⁹ See also <http://www.alaskacoast.state.ak.us/>

4.2 List of Alaska Acronyms

ACMP	Alaska Coastal Management Program	DMLW	Dept. of Mining, Land and Water
CPQ	Coastal Project Questionnaire	DNR	Department of Natural Resources
CRSA	Coastal Resource Service Area	Habitat	Alaska Department of Fish and Game, Division of Habitat
DCOM	Division of Coastal and Ocean Management	ROW	Right of Way
DEC	Department of Environmental Conservation		
DFG	Department of Fish and Game		

4.3 Summary Table of Alaska Authorizations

Authorization/ Review	Primary Legal Authority	Lead Agency	Anticipated Process Time
CZMA Federal Consistency Determination	CZMA § 307, ALASKA STAT. § 46.39-40 (Alaska Coastal Management Program)	Department of Natural Resources, Division of Coastal and Ocean Management	Up to six months from receipt of complete application
§ 401 Water Quality Certification	Clean Water Act §401	Department of Environmental Conservation	Up to one year
Land Use Permit, Right-of-Way	ALASKA STAT. § 38.05850; ALASKA ADMIN. CODE tit. 11, § 51	Department of Natural Resources, Division of Mining, Land & Water	Varies by project
Tidelands Lease	ALASKA STAT. § 38.05070-.05075; ALASKA ADMIN. CODE tit. 11, § 62		Up to one 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 tit. 5, § 95.420		Varies by project

4.4 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 activities⁸⁰ be consistent with state coastal management policies (e.g., land use planning statutes, marine spatial planning, and water quality standards).⁸¹ A *consistency determination* is the process used to implement this requirement for federal permits and licenses. Hydrokinetic projects will likely require a §404 Permit, a §10 Permit, and/or a FERC license, all of which require a consistency review. In Alaska, CZMA consistency determinations are reviewed in accordance with the Alaska Coastal Management Program (ACMP).

Lead Agency: The ACMP is housed within the Department of Ocean and Coastal Management (DCOM) within the Department of Natural Resources (DNR); however federal consistency reviews are not performed by one single agency. Rather, DCOM coordinates a collaborative process review involving Alaska's natural resource agencies. Participants in the coastal consistency review process include the applicant, state agencies, the affected coastal district(s), interested members of the public, and relevant federal agencies.

Review Process: The ACMP consistency process is designed to advance projects through review and approval in a timely fashion. Applicants

⁸⁰ 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.

⁸¹ The federal consistency review requirements and procedures are detailed in 15 CFR § 930.

have a single, primary point of contact and reviewers benefit by comprehensively reviewing a project only once. A project in the coastal zone must receive an ACMP consistency determination before other agencies can issue some permits for the project.

The ***Coastal Project Questionnaire*** (CPQ) serves as the application for getting a project started in the consistency review process. The CPQ helps identify which state and federal permits will be required for a project; and a completed CPQ provides reviewers with a description of the project and certifies that the project will be conducted in a manner consistent with the ACMP. Applicants should submit the CPQ packet to the DCOM. The CPQ packet will inform the project proponent of the necessary forms and fee schedules.⁸²

Before an applicant finalizes project plans or submits the CPQ and other information for a complete application packet, the state can arrange a pre-application meeting with the applicant and other review participants to discuss the draft plans. This meeting identifies concerns and information needs and promotes a mutual understanding of the project. Applicants may contact the coordinating agency to arrange a pre-application meeting. Once an application is received and determined to be complete, the coordinating agency initiates the required public notices.

The coordinating agency circulates the application packet to review participants and issues a deadline for reviewer and public comments. During the review, the coordinating agency tracks the project and provides

⁸² There is no charge for the ACMP consistency review process. However, associated permits may have fees.

opportunity to participate within the designated time frames. The coordinating agency will notify the applicant of the review start date, review number, review schedule, and any other pertinent information. After receiving comments from participants during the review process, the coordinating agency tries to resolve any issues.

The coordinating agency then develops a **Proposed Consistency Determination**. The proposed determination is shared with the applicant, state resource agencies, and the affected coastal district for concurrence. The proposed consistency determination may include project modifications- called alternative measures- that are necessary to bring it into compliance with the ACMP. These alternative measures are attached to permits issued for the project.⁸³ If concurrence cannot be reached by the review deadline, an “elevation” can be requested by the applicant or certain review participants.⁸⁴

Elevation- If an applicant, a resource agency, or an affected coastal district disagrees with the proposed determination they may request elevation (further review) to DNR Commissioner. This request must be in writing, it must explain the requestor’s concerns with the proposed consistency determination or consistency response, and it must propose a modification to the project. The commissioner invites the coordinating agency, the resource agencies, the applicant and any affected coastal district to attend the elevation meeting to resolve the requestor’s specific ACMP concern.

⁸³ Applicants and reviewers may discuss or negotiate alternative measures for the final determination.

⁸⁴ Instances of elevation are low; in fact, statistics show that less than one percent of proposed consistency determinations receive requests for elevation.

After the elevation meeting and within 45 days, the Commissioner issues a written decision.

A **Final Consistency Determination** is issued when the applicant and the project reviewers concur with the proposed determination, including any alternative measures.⁸⁵ Once the final consistency determination is completed, some state agencies issue permits covered by the determination within five days. However, most agencies normally find that additional time is necessary to fulfill its statutory requirements.⁸⁶

Process Time: Generally, the state must complete the consistency review of a project 90 days after the start date. Although most projects require a 50-day review, the actual time frame may be extended under certain circumstances (e.g., federal activities may require a different review schedule).⁸⁷ Reviewers may request an extension for an applicant to provide additional information on the project that is needed for their analysis.⁸⁸

⁸⁵ An objection to a consistency determination involving a federal authorization may be appealed to the Secretary of Commerce. 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.

⁸⁶ DNR leases and right-of-way easements generally require additional time, as do many DEC authorizations.

⁸⁷ Increased interest in renewable energy in Alaska could delay reviews of proposed projects as more and more applications are submitted. Applicants can help avoid delays by contacting agency staff *early* so they have strong, complete applications and supporting information for their project review.

⁸⁸ The project review may be stopped until that information is received. Reviewers will notify the applicant whether the additional information is adequate within seven days of its receipt.

Reviewers may also request an extension to perform a field review to coordinate with DNR's process for authorizing use of state land or resources, or for a public hearing held as part of the review process.

Legal Authority: *Coastal Zone Management Act (16 USC § 1451 et seq); Alaska Coastal Management Program (ALASKA STAT. § 46.39-40)*

4.5 Clean Water Act § 401 Water Quality Certification

The purpose of § 401 of the Clean Water Act (CWA) is for states to use this 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. A § 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 FERC license are reviewed by the Department of Environmental Conservation (DEC).⁸⁹ In cases where a project is subject to exhaustive environmental review as part of the FERC licensing process, the 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.⁹⁰

Review Process: When an application is received and deemed complete⁹¹ the DEC will commence 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, the DEC will issue its decision. DEC may *not* issue a WQC until the ACMP final consistency determination is issued.

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

⁹⁰ DEC will determine whether a WQC is necessary on a case-by-case basis.

⁹¹ 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.

⁸⁹ <http://www.dec.state.ak.us/index.htm>

certification. If certification is denied, the federal permit or license cannot be issued.

Process Time: States are provided up to one year to issue a certification decision.⁹²

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

4.6 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 Division of Mining, Land and Water (DMLW). The type of authorization needed will vary 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.

Land use permits and Rights-of-Way (ROW) are authorizations issued to use state land, on a

⁹² The one-year time frame commences upon the state’s receipt of a complete application. States are often unable to make a certification decision within the one year review period because the administrative record is inadequate to support issuance of a certification. In such a case the state will often give applicants the option of letting the state make a “reasonable assurance” determination, allowing the applicant to withdraw and resubmit the application once it contains adequate information. If the applicant chooses not to do this, then the state will have to deny the certification request. In either case, the one-year review period starts over. It is possible for this process to repeat several times before the state has an administrative record that will support water quality certification.

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 the Department of Natural Resources, the DMLW⁹³ manages all state-owned land⁹⁴ except for trust property and units of the Alaska State Park System. Since wave and tidal projects will fall within the coastal zone, project proponents should also submit an application for the appropriate authorization with a Coastal Project Questionnaire (CPQ) to the Division of Coastal and Ocean Management (DCOM).

Review Process: Once the forms, fees, and other necessary documents are received, the application will be reviewed by the DMLW, the DCOM, 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.

Fees: Applications for land use permits and ROWs require an application fee set by

⁹³ <http://www.dnr.state.ak.us/mlw/index.htm>

⁹⁴ 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 tit. 11, § 62.010. Elevation varies by location. Contact the nearest DNR regional office for assistance.

regulation. The 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. § 38.05850, ALASKA ADMIN. CODE tit. 11, § 51.*

4.7 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 non-competitively, 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.⁹⁵

Lead Agency: DMLW manages Alaska's 65 million acres of tidelands, shorelands, and submerged lands, including some 34,000 miles of coastline;⁹⁶ therefore, DMLW is also the lead agency for Tidelands Leases. Since wave and tidal projects will fall within the coastal zone, applicants should submit an application for the appropriate land use authorization along with the CPQ to the DCOM.

⁹⁵ 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.

⁹⁶ *Tidelands* are that portion of the intertidal zone below the elevation of mean high water. *Submerged lands* are those below the lowest tidal elevation.

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 U.S. 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 (\$100), and development plan are received, the lease proposal will be reviewed by the DMLW, the DCOM, 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.⁹⁷

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

⁹⁷ 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.

rental value; a fee for each user; other compensation acceptable to the Commissioner; or a combination of these options. If a lease is issued non-competitively, 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 non-competitively, 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.⁹⁸

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 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 non-competitively, 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

⁹⁸ The size of non-competitive leases may also be limited by the value of the land being leased.

least one year in advance of the date they need the lease.⁹⁹ DMLW may not finalize a lease or land use permit until the ACMP final consistency determination has been issued.

Legal Authority: ALASKA STAT. § 38.05070-.05075; ALASKA ADMIN. CODE tit. 11, § 62

4.8 Special Area Permit

The Alaska State Legislature has classified certain areas as being essential to the protection of fish and wildlife. These areas are designated as refuges, critical habitat areas, or sanctuaries (collectively known as Special Areas). A few 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 is likely to have a significant effect on vegetation, drainage, water quality, soil stability, fish, wildlife, or their habitat, or which disturbs fish or wildlife in a Special Area. Construction or placement of structures, damaging or clearing vegetation, surface/shoreline altering activities, natural resource development, and energy exploration all require authorization.

Lead Agency: DFG, Division of Habitat (Habitat) oversees land and water use activities in Special Areas.¹⁰⁰ Habitat authorizes land and water use activities with a *Special Area Permit*.

Review Process: Application¹⁰¹ instructions may be obtained from the Habitat office with geographic responsibility for a project location.

⁹⁹ The application process can be delayed if the development plan does not provide sufficient information.

¹⁰⁰ Except sanctuaries which are regulated by the Division of Wildlife Conservation.

¹⁰¹

<http://www.habitat.adfg.alaska.gov/sapermit.php>

Public notice and hearings are not required. No application fee is required.

Process Time: Varies by project. Habitat is generally ready to make a decision on permit applications upon completion of the project's CZMA consistency review. Habitat may not issue a fish habitat permit or a special area permit until the ACMP final consistency determination has been issued.

Legal Authority: *ALASKA STAT. § 16.20.010-690; ALASKA ADMIN. CODE tit. 5, § 95*

4.9 Fish Habitat Permit

Alaska's Fishway Act¹⁰² requires that activities within or across a stream used by fish must be authorized if such uses or activities could affect the efficient passage of fish. Any construction, placement, deposition, or removal of any material or structure below the ordinary high water mark¹⁰³ requires approval from Habitat.

Similarly, the state's Anadromous Fish Act requires that project proponents provide prior notification and obtain approval from Habitat for all activities within or across a specified anadromous waterbody, as well as instream activities affecting a specified anadromous waterbody.¹⁰⁴ Construction activities, use of

vehicles or equipment in the waterway, and the placement, excavation, deposition, or removal of any material in a waterway used or affected by anadromous fish all require authorization.

Lead Agency: DFG, Division of Habitat (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.

Process Time: Varies by project. Habitat is generally ready to make a decision on permit applications upon completion of the project's CZMA consistency review; Habitat may not issue a fish habitat permit or a special area permit until the ACMP final consistency determination has been issued.

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

¹⁰²

http://www.habitat.adfg.alaska.gov/regs.php#as84_o_86o

¹⁰³ For an explanation of the ordinary high water mark,

<http://www.habitat.adfg.alaska.gov/glossary.php#ordinaryhwmark>

¹⁰⁴ The location of specified anadromous waterbodies is contained in the "Catalog of Waters Important for the Spawning Rearing or Migration of Anadromous Fishes." The Catalog is updated annually after public review. The Catalog may be viewed at

<http://www.sf.adfg.state.ak.us/SARR/AWC/index.cfm/FA/maps.interactive>

4.10 Alaska Roadmaps

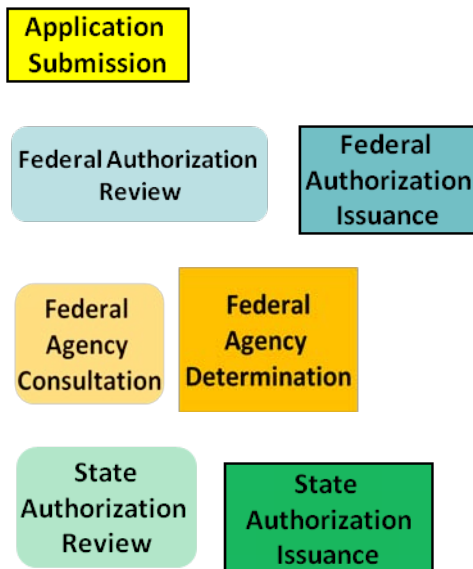
The following roadmaps are process schematics which show the approximate timing and sequence of the principle licensing, permitting and environmental review processes involved in siting hydrokinetic projects in the State of Alaska. Alaska’s state processes are overlaid with the federal processes in these roadmaps to show the relation of timing and sequence between of the state and federal authorizations. These roadmaps represent three scales of project development:

4-A Non-Grid Connected, Pilot Project: Small-scale hydrokinetic projects that are not connected to the electric grid do not require a license FERC, as no electricity is being transmitted. Projects of this scale are generally used for the purposes of testing and collecting data on device performance in the marine environment. This roadmap shows all the principle federal and state authorization processes *except* the FERC licensing process. In this situation, the COE would be the lead federal agency for the project NEPA review.

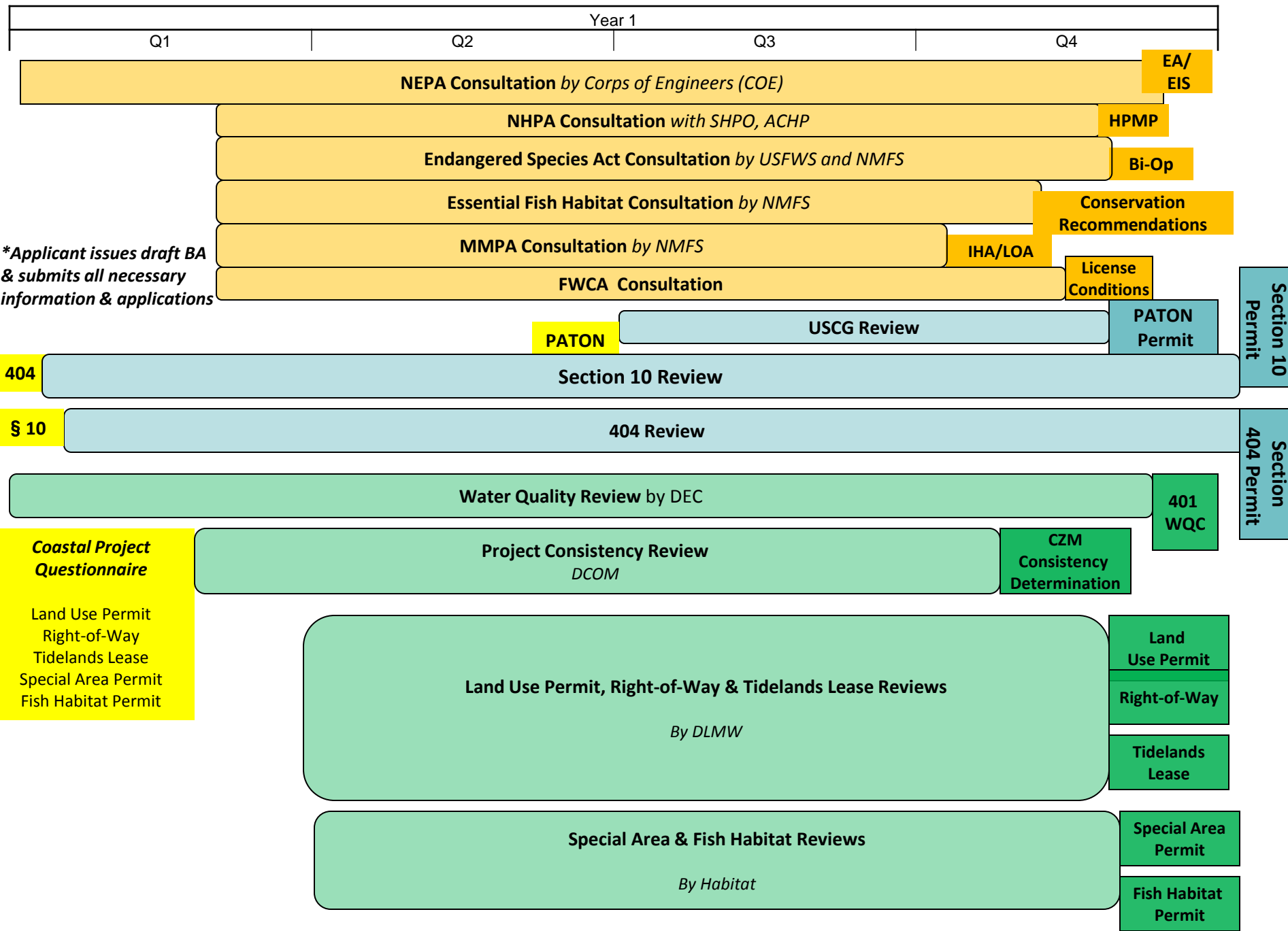
4-B Grid Connected, Pilot Project: Small-scale hydrokinetic projects that are connected to the electric grid may also be used to test and collect data on device performance in the marine environment. Since the project would be transmitting electricity, a FERC license is required. However, small-scale projects may be licensed under the FERC Pilot Process. This roadmap shows all the principle federal and state authorization processes, including the FERC Pilot Process. In this situation, FERC would be the lead federal agency for the project NEPA review.

4-C Grid Connected, Commercial Project: Commercial-scale hydrokinetic projects produce and transmit large amounts of electricity. This roadmap shows all the principle federal and state authorization processes, including the FERC Traditional License Process with Settlement Agreements. In this situation, FERC would be the lead federal agency for the project NEPA review.

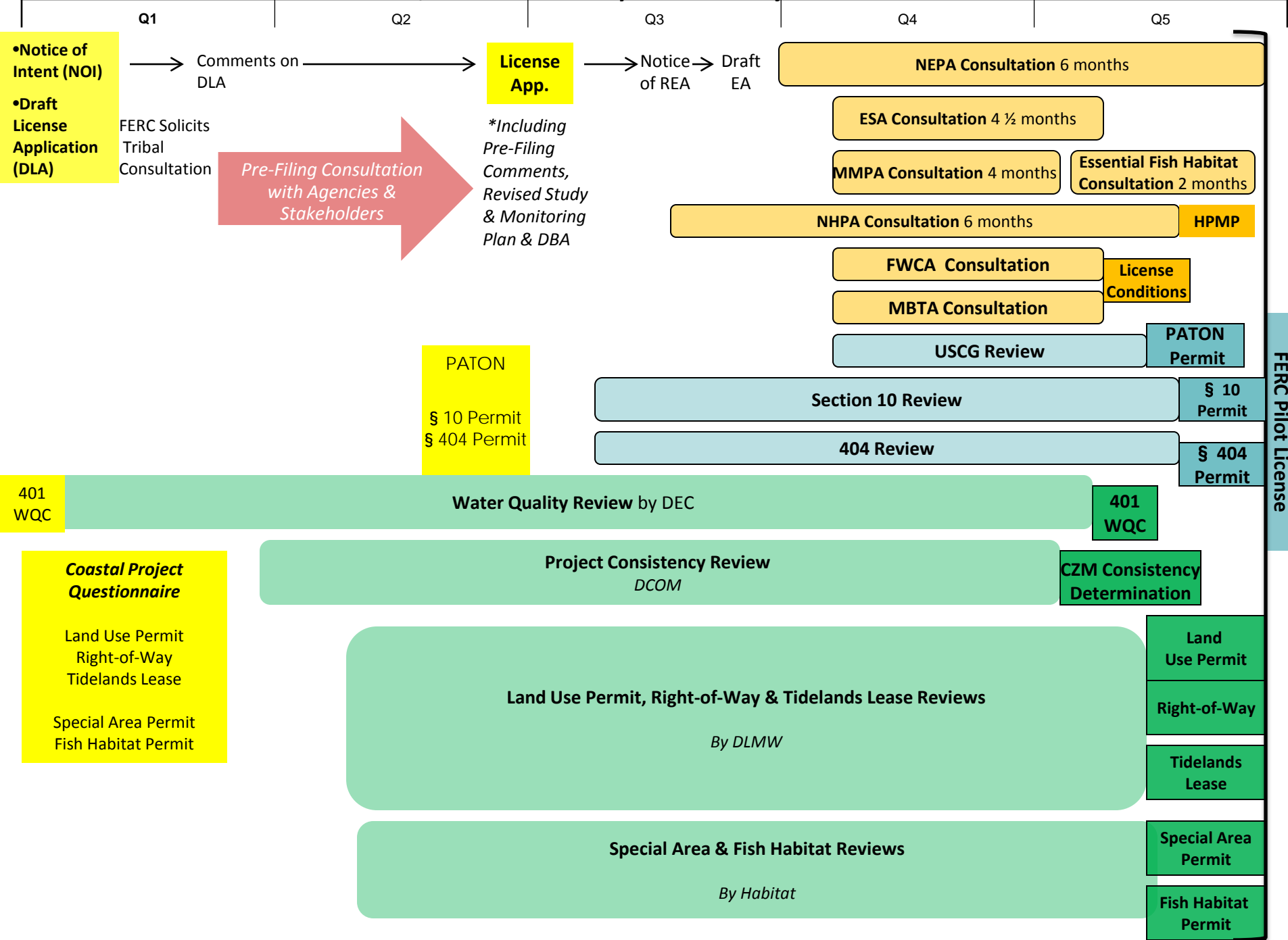
The types of authorizations are color coded in the roadmaps as follows:



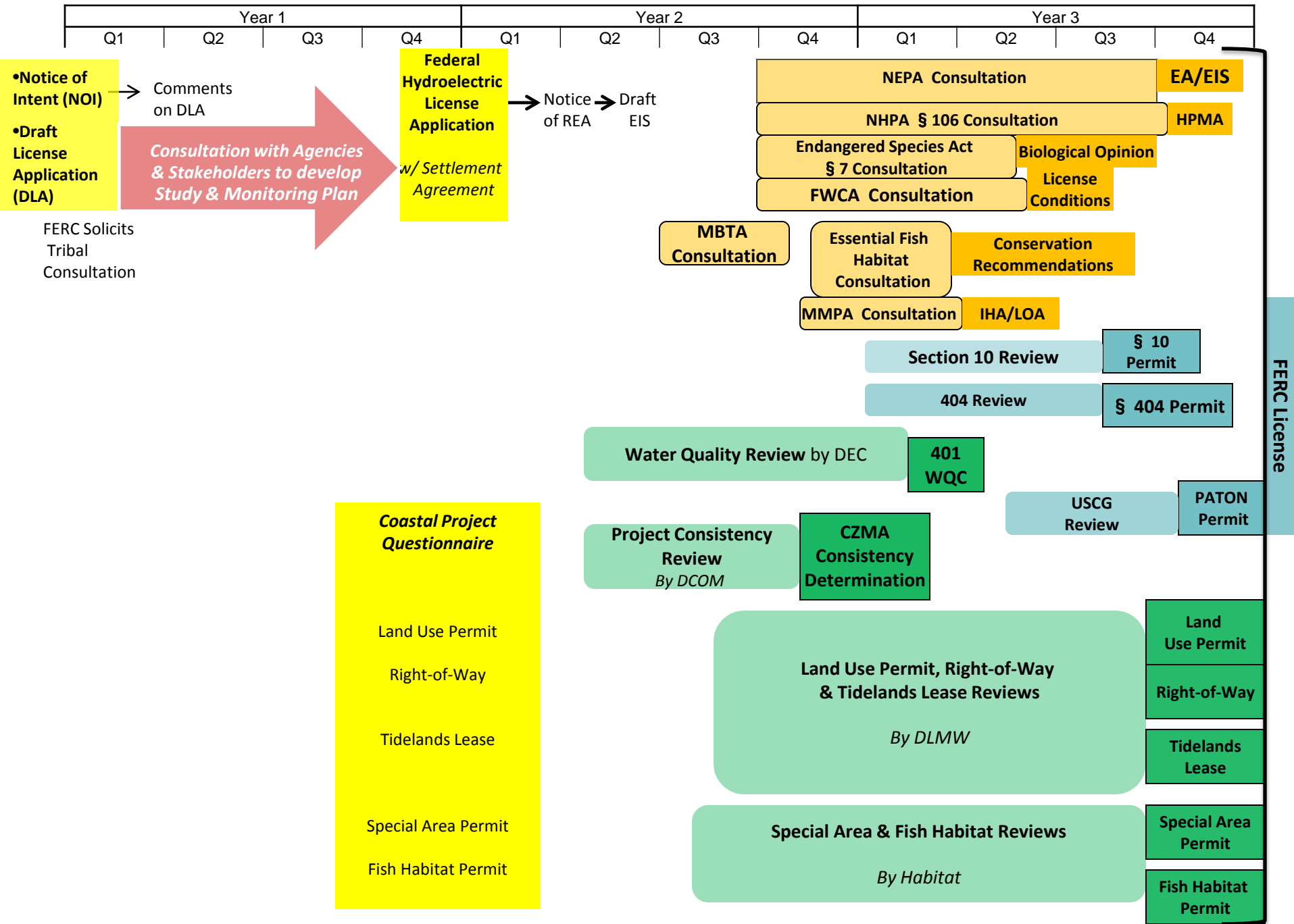
Non-Grid Connected, Pilot-Scale Hydrokinetic Project in Alaska State Waters



Pilot-Scale, Grid-Connected Hydrokinetic Project in Alaska State Waters



Commercial Hydrokinetic Project in Alaska State Waters



4.11 Alaska Agency Contact Information

Agency	Web Address	Mailing Address	City	State	Zip	Phone
Alaska Department of Fish and Game, Division of Habitat	www.habitat.adfg.alaska.gov	P.O. Box 115526, 1255 W. 8th St.	Juneau	AK	99811-5526	907-465-1852
Department of Environmental Conservation	www.dec.state.ak.us	410 Willoughby Ave., Suite 303	Juneau	AK	99811-1800	907 465-5180
Department of Fish and Game	www.adfg.state.ak.us	PO Box 115526	Juneau	AK	99811	907 465-4100
Dept. of Nat. Resources, Division of Mining, Land and Water	www.dnr.alaska.gov/mlw	550 West 7th Ave., Ste 900C	Anchorage	AK	99501	907-269-8503
Division of Coastal and Ocean Management	www.dnr.alaska.gov/coastal	P.O. Box 111030	Juneau	AK	99811-1030	907 465-3562

5 Washington

5.1 Introduction to Washington State Agencies & Authorizations

The State of Washington has consolidated the application process for environmental permitting with its Joint Aquatic Resources Permit Application (JARPA). The 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
- CWA § 401 Water Quality Certification from the Washington Department of Ecology
- CWA § 404 and Rivers and Harbors Act § 10 permits from the U.S. Army Corps of Engineers
- Shoreline Management Act Permit from participating local city or county agencies

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; Instruction B: Help and Guidance; and a completed example of JARPA.

The JARPA may also be obtained from the Governor's Office of Regulatory Assistance (ORA), which provides statewide environmental permit information. Project proponents can find out which environmental permits are required for a proposed activity by calling the ORA or accessing its website. The ORA 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 the ORA 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, the Federal Energy Regulatory Commission (FERC) signed an agreement with the State of Washington to coordinate their reviews of proposals for water power projects in Washington state waters. Under the Memorandum of Understanding (MOU), officials at FERC and in Washington agree 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 comply with the schedules;
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 matters; and
4. If Washington prepares a comprehensive plan on the siting of hydrokinetic projects, FERC will take this plan into consideration when issuing a license for any hydrokinetic project.

5.2 List of Washington Acronyms

DNR	Department of Natural Resources	ORMA	Ocean Resource Management Act
DNS	Determination of Non-Significance	SDP	Shoreline Substantial Development Permit
Ecology	Department of Ecology	SEPA	State Environmental Policy Act
EFSEC	Energy Facility Site Evaluation Council	SMA	Shoreline Management Act
EIS	Environmental Impact Statement	WCZMP	Washington Coastal Zone Management Program
HPA	Hydraulic Project Approval	WDFW	Washington Department of Fish and Wildlife
JARPA	Joint Aquatic Resource Permits Application		
ORA	Office of Regulatory Assistance		

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 ¹⁰⁵	Clean Water Act, §401; State Water Quality Rule	Department of Ecology	1 yr
State Environmental Policy Act Review	WA State Environmental Policy Act	Local or State Agency ¹⁰⁶	Variable ¹⁰⁷
Aquatic Use Authorization ¹⁰⁵	Aquatic Land Use Authorization, Aquatic Lands Management Guidelines	Department of Natural Resources	6-12 months
Hydraulic Project Approval ¹⁰⁵	Hydraulic Code Rules, Construction Projects in State Waters	Department of Fish & Wildlife	Up to 45 days
Shoreline Permit (Variance, Conditional Use, or Substantial Development) ¹⁰⁵	Shoreline Management Act	Local government, Department of Ecology	Determined by local govt. & Ecology

¹⁰⁵ 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 Joint Aquatic Resources Permit Application (JARPA).

¹⁰⁶ 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.

¹⁰⁷ If a Determination of Non-Significance (DNS) can be issued, then process time may only take three to six months; however, if an Environmental Impact Statement (EIS) is required, then process time may take up to 24 months or more.

5.4 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 activities¹⁰⁸ be consistent with state coastal management policies (e.g., land use planning statutes, marine spatial planning, and water quality standards).¹⁰⁹ A *consistency determination* is the process used to implement this requirement for federal permits and licenses. Federal agency actions affecting coastal resources in any of the fifteen coastal counties¹¹⁰ in Washington require certification that the project is consistent with the Washington Coastal Zone Management Program (WCZMP). Hydrokinetic projects will likely require a §404 Permit, a §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 consistency 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 parties¹¹¹ 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 the CWA § 401 certification, shoreline permit, and SEPA determination- *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 information¹¹²;
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.¹¹³

Ecology can attach mandatory conditions to the project in a conditioned concurrence. If those conditions are acceptable to the federal action agency, they will be incorporated into the

¹⁰⁸ 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.

¹⁰⁹ The federal consistency review requirements and procedures are detailed in 15 CFR § 930.

¹¹⁰ Clallam, Grays Harbor, Island, Jefferson, King, Kitsap, Mason, Pacific, Pierce, San Juan, Skagit, Snohomish, Thurston, Wahkiakum, and Whatcom counties are all coastal counties.

¹¹¹ Interested parties may include government agencies, tribal authorities, NGOs, and private citizens

¹¹² 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.

¹¹³ If the state or its designated agency fails to furnish the required notification within six months after receipt of its copy of the applicant's certification, the state's concurrence with the certification is presumed.

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.¹¹⁴

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); Shoreline Management Act; Energy Facility Site Evaluation Council Law; Ocean Resource Management Act*

5.5 Clean Water Act § 401 Water Quality Certification

The purpose of § 401 of the Clean Water Act (CWA) is for states to use its 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. A § 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. 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 U.S. 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: In Washington, the Department of Ecology (Ecology) will issue a WQC in the form of an administrative order.

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 water quality certification 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*, the 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. If not, Ecology will issue a Letter of Verification indicating that no WQC is required for the project.¹¹⁵

If Ecology grants a water quality certification, it is in effect saying that the proposed activity will comply with state water quality standards. Additionally, 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

¹¹⁴ NOAA's Office of Ocean and Coastal Resource Management will provide mediation in the case of a CZMA dispute.

¹¹⁵ If the COE cannot determine whether the proposed project meets the conditions of an Ecology-approved Nationwide Permit, then Ecology will determine whether a WQC is necessary.

state and federal water quality standards. If Ecology denies certification, the federal action agency is prohibited from authorizing the project.¹¹⁶ Alternatively, Ecology may waive water quality certification 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 usually coordinated with the COE as a joint notice and provides for a 30- day comment period. Ecology may consult with any interested parties (such as government agencies, tribal authorities, NGOs, or private citizens) who choose to participate in the public outreach component of the review.

Process Time: States have up to one year to issue a certification decision.¹¹⁷

¹¹⁶ 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, the PCHB may not hear the case for six months or more.

¹¹⁷ It may take longer than one year to issue a decision, depending on the complexity of the project. The one-year time frame commences upon the agency's receipt of a complete application. State agencies are often unable to make a certification decision within the one year review period because the administrative record is inadequate to support issuance of a certification. In such a case the state agency will often give applicants the option of letting the state make a "reasonable assurance" determination. This action allows the applicant to withdraw and resubmit the application once it contains adequate information. If the applicant does not choose to withdraw and resubmit the application, then the state agency will have to deny the certification request. In either case, the one-year review period starts over. It is possible for this process to repeat several times before the state

Legal Authority: *Clean Water Act § 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

The Washington State Environmental Policy Act (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 will be the city or county where the project is located. The lead agency¹¹⁸ 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

agency has an administrative record that will support water quality certification.

¹¹⁸ 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.

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.

If the proposed project requires a FERC license, then the SEPA process can be streamlined or even deemed unnecessary if the NEPA documentation satisfies the requirements of SEPA.¹¹⁹ To help streamline the environmental review process, state and local agencies will often submit specific comments on FERC's draft EA/EIS so that the final NEPA document satisfies SEPA requirements. The lead agency will decide what the most appropriate approach is on a case-by-case basis.

If the proposed project is not exempt, the applicant will usually be 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 will be 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 will review the checklist and other information about the proposal. If the lead agency needs additional information to evaluate the proposal, they 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.

¹¹⁹ However, if FERC's NEPA document does not satisfy SEPA, then a SEPA review will likely be required. This can add a significant amount of time to the project's permitting processes, as most state and local authorizations cannot be issued until the SEPA review is complete.

If the lead agency has enough information to determine that the proposal is unlikely to have a significant adverse environmental impact, the agency will issue a determination of non-significance (DNS). If the information indicates the proposal is likely to have a significant adverse environmental impact, the lead agency will require the preparation of an environmental impact statement (EIS) for the SEPA review.¹²⁰ The EIS will include 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 will provide information to all agencies that must approve the proposal. The environmental information will be 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 EIS. In rare cases, an agency may deny a proposal when an EIS shows that the proposal is likely to have significant adverse environmental impacts that cannot be reduced to an acceptable level.

Process Time: Variable¹²¹

Legal Authority: *State Environmental Policy Act, (WASH. REV. CODE § 43.21C)*

¹²⁰ As noted above, the NEPA documentation may satisfy the requirements of SEPA.

¹²¹ If a Determination of Non-Significance (DNS) can be issued, then process time may only take three to six months; however, if an Environmental Impact Statement (EIS) is required, then process time may take up to 24 months or more.

5.7 Aquatic Use Authorization

The purpose of an Aquatic Use Authorization, or an “Aquatic Lease,” is to protect and manage the use of state owned aquatic lands. Any activity that takes place on state-owned aquatic lands will require this authorization.

Lead Agency: An applicant will first complete an application for Authorization to Use State-Owned Aquatic Lands and submit it to the WA Department of Natural Resources (DNR).¹²² Any other authorizations that the project requires must be also submitted with the application.¹²³

Review Process: Once DNR receives an application, it will be forwarded to the project-site Land Manager, who reviews the application for completeness. Once the application is complete, the Land Manager determines whether or not the land is available for lease. If so, the Land Manager evaluates the proposed uses. During this evaluation, DNR will send the applicant a letter detailing requirements needed to complete the application process. Once the applicant completes these requirements, the Land Manager drafts a lease contract and calculates the rents. The applicant and Land Manager will then discuss and review the lease terms and may modify the contract. Once it is finalized, the lease contract packet is mailed to the applicant who signs, notarizes, and returns the packet, along with the pre-bill payment, to the DNR regional office.

¹²² 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).

¹²³ 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.

Upon receipt at the regional office, the DNR Assistant Region Manager will review the lease conditions and rent. If the Assistant Region Manager disagrees with the contract terms, then the Land Manager and applicant will review and modify the contract until it is approved by the Assistant Region Manager. Once the Assistant Region Manager agrees to the lease conditions and rent, the project may be authorized and the lease may be granted to the applicant.¹²⁴

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.

Legal Authority: *Aquatic Land Use Authorization (WASH. ADMIN. CODE § 332-30-122); Aquatic Lands Management Guidelines (WASH. REV. CODE § 79.105.030)*

5.8 Hydraulic Project Approval

A Hydraulic Project Approval (HPA) is required for any construction activity that will use, divert, obstruct, or change the bed or flow of state waters.¹²⁵ For example, major saltwater activities requiring an HPA may include construction of bulkheads, fills, boat launches, piers, dry docks, artificial reefs, dock floats, and marinas, as well as placement of utility lines, pile driving, and dredging.

Lead Agency: The HPA is issued by the Washington Department of Fish and Wildlife (WDFW). By applying for and following the provisions of the HPA, most construction

¹²⁴ The applicant may appeal the proposed rent within 30 days of receiving an authorized lease with notification of the rent due.

¹²⁵ State waters include all marine waters and fresh waters of the state, except those watercourses that are entirely artificial, such as irrigation ditches, canals and storm water run-off devices.

activities that affect the bed or flow of state waters can be allowed with little or no adverse impact on fish or shellfish.

Review Process: SEPA compliance must be completed before WDFW will review an HPA application, so applicants must first submit SEPA compliance documents to the lead agency. Then the applicant will prepare and submit its application (which may be submitted via the JARPA form) and Notice of Compliance with SEPA to the WDFW. Generally, project proponent must submit *two copies* of the JARPA to the WDFW.

HPA applications are assigned to a WDFW Area Habitat Biologist. In most cases, the biologist will visit the project site and will try to meet with the applicant to identify fish habitat needs and how the project may affect that habitat. The biologist will work with the applicant to help achieve the project objective while protecting fish, shellfish, and their habitat.

If the project as proposed will adversely affect fish habitat, it may be approved with certain conditions attached, such as timing and construction methods, to prevent damage. If the project cannot be accomplished without significant adverse impacts on fish, shellfish, or their habitat, it may be denied.¹²⁶ A complete application consists of (1) general plans and specifications for the project, (2) complete plans and specifications for work within the ordinary high water line,¹²⁷ and (3) complete plans and specifications for the proper protection of fish life. Applications for

¹²⁶ Of the approximately 6,000 applications received per year, less than one percent are denied.

¹²⁷ An Area Habitat Biologist can help applicants determine the location of the ordinary high water line and the necessary steps to protect aquatic life from project impacts.

emergency and expedited HPAs may be submitted to regional offices or directly to the Area Habitat Biologist.

Process Time: The Hydraulic Code allows the WDFW 45 days to act on an application; however, WDFW processes most complete applications (including application form and Notice of Compliance with SEPA) within 30 days of receipt.

Legal Authority: *Washington Hydraulic Code (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; or Substantial Development Permit. Shoreline permits may be applied for with the Joint Aquatic Resources Permit Application (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, and Ecology participates in the process as a coordinating party.

Process Time: The local permit time frame is determined by local government. Ecology's decision will be issued within 30 calendar days of receiving a complete permit package from the local government.

Legal Authority: *WASH. ADMIN. CODE § 173-27; WASH. REV. CODE § 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 before it issues a shoreline variance.

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 Conditional Use Permit.

Shoreline Conditional Use Permits are 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 it issues a shoreline conditional use permit.

5.9.3 Shoreline Substantial Development Permit

A Shoreline Substantial Development Permit (SDP) is a written permit issued by local government for development on the shoreline. An applicant should ask the local government to determine if a permit or exemption is required. 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 \$5,718 of fair market value, then an SDP 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 SDP decision or the final SDP, Ecology simply informs local governments and permit applicants of the SDP filing dates.

5.10

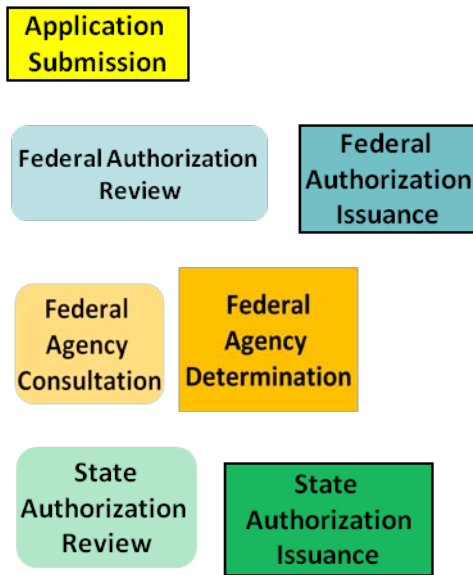
5.11 Washington Roadmaps

The following roadmaps are process schematics which show the approximate timing and sequence of the principle licensing, permitting and environmental review processes involved in siting hydrokinetic projects in the State of Washington. Washington’s state processes are overlaid with the federal processes in these roadmaps to show the relation of timing and sequence between of the state and federal authorizations.

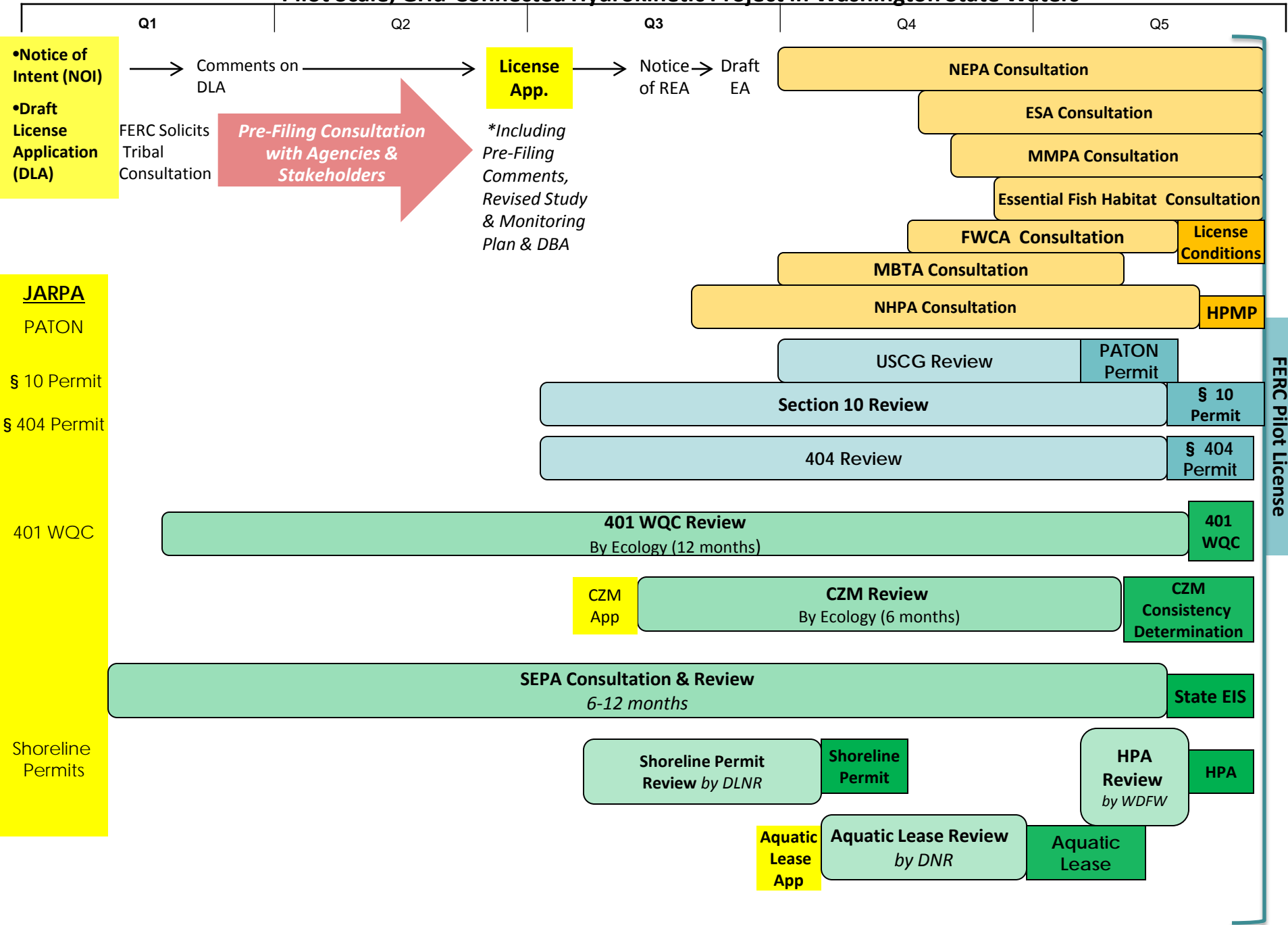
5-A Grid Connected, Pilot Project: Small-scale hydrokinetic projects that are connected to the electric grid may also be used to test and collect data on device performance in the marine environment. Since the project would be transmitting electricity, a FERC license is required. However, small-scale projects may be licensed under the FERC Pilot Process. This roadmap shows all the principle federal and state authorization processes, including the FERC Pilot Process. In this situation, FERC would be the lead federal agency for the project NEPA review.

5-B Grid Connected, Commercial Project: Commercial-scale hydrokinetic projects produce and transmit large amounts of electricity. This roadmap shows all the principle federal and state authorization processes, including the FERC Traditional License Process with Settlement Agreements. In this situation, FERC would be the lead federal agency for the project NEPA review.

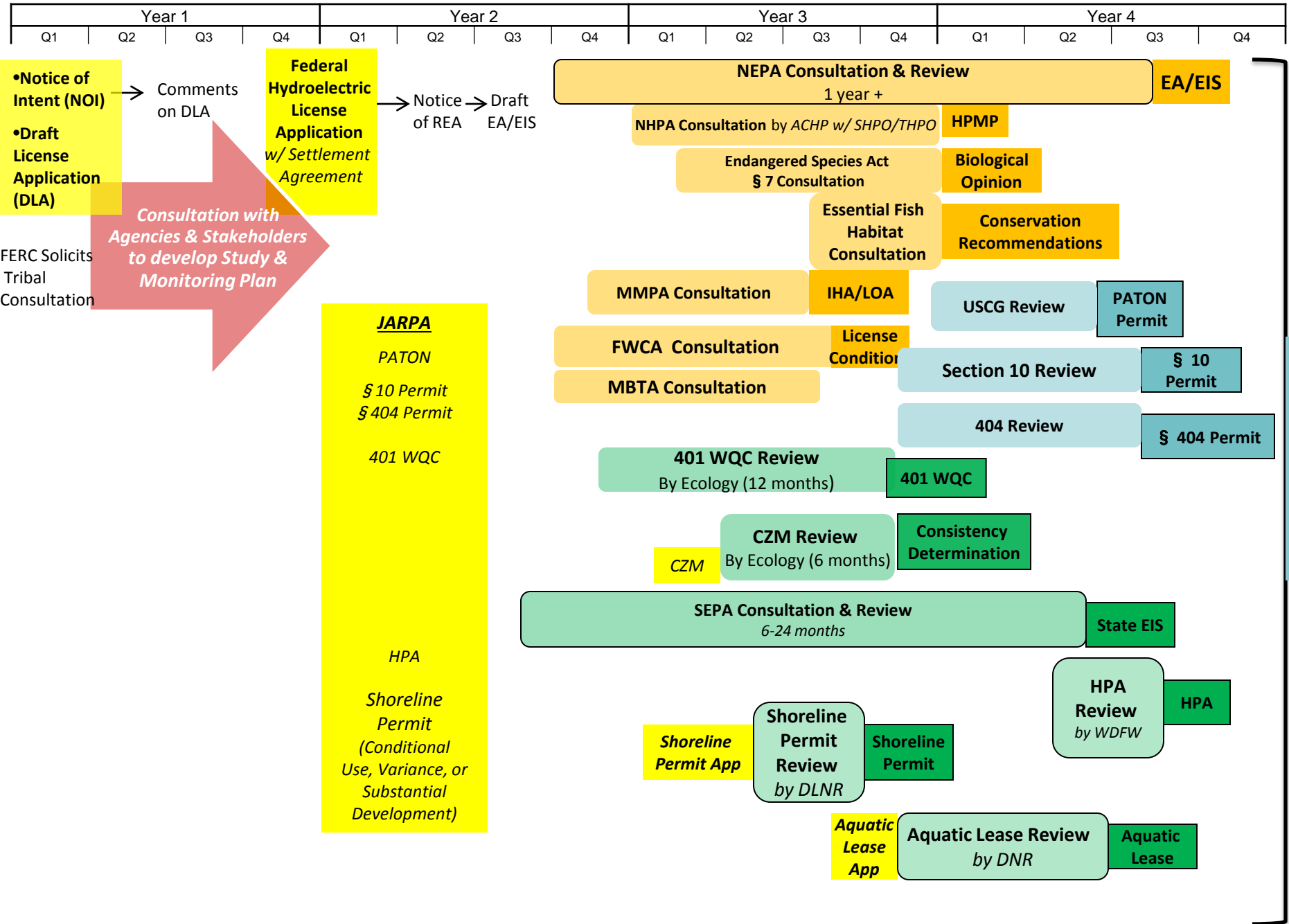
The types of authorizations are color coded in the roadmaps as follows:



Pilot Scale, Grid-Connected Hydrokinetic Project in Washington State Waters



Commercial Hydrokinetic Project in Washington State Waters



5.12 Washington Agency Contact Information

Agency	Web Address	Mailing Address	City	State	Zip	Phone
Department of Ecology	www.ecy.wa.gov	P.O. Box 47600	Olympia	WA	98504-7600	360-407-6000
Department of Natural Resources	www.dnr.wa.gov	P.O. Box 47000, 1111 Washington St. SE	Olympia	WA	98504-7000	360-902-1000
Energy Facility Site Evaluation Council Law	www.efsec.wa.gov	905 Plum St., P.O. Box 43172	Olympia	WA	98504-3172	360-956-2121
Office of Regulatory Assistance	www.ora.wa.gov	300 Desmond Dr. SE	Lacey	WA	98503	800-917-0043
Washington Department of Fish and Wildlife	www.wdfw.wa.gov	600 Capitol Way N.	Olympia	WA	98501-1091	360-902-2156

6 Oregon

6.1 Introduction to Oregon Agencies & Acronyms

Oregon adopted its Territorial Sea Plan¹²⁸ in 1994 as a detailed, management-oriented guide for evaluating uses of the state's territorial waters. Recently, the Land Conservation and Development Commission directed the Department of Land Conservation and Development to initiate a Territorial Sea Plan administrative rulemaking project. The project is intended to produce mandatory policies that will 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.¹²⁹ The principle authorizations currently required for constructing and operating a hydrokinetic facility in Oregon are listed in the table on the following page, and each is explained in detail later in the chapter. New or amended administrative rules are anticipated from LCDC as early as December 2009.

Five agencies in Oregon have primary responsibility for processing applications and issuing state authorizations for offshore energy projects. The **Oregon Water Resources Department (OWRD)** has jurisdiction over the licensing of hydroelectric facilities in the state. Although hydrokinetic projects off the Oregon coast will not be required to go through the state's Energy Facility Siting Council, each project will be required to have a state hydroelectric license from OWRD. The OWRD

¹²⁸http://www.oregon.gov/LCD/OCMP/Ocean_TSP.shtml

¹²⁹ A description of the project, reports and draft administrative rules are available on the Territorial Sea Plan Advisory Committee's website: <http://www.oregon.gov/LCD/tspac.shtml>

also coordinates with the **Oregon Department of Environmental Quality (DEQ)** on the issuance of Clean Water Act § 401 Water Quality Certifications. However, the DEQ independently certifies all hydroelectric (and likely hydrokinetic) projects licensed by FERC.

The **Oregon Department of State Lands (DSL)** authorizes several aspects of marine hydrokinetic projects. Initially, project developers will 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 & demonstration. The DSL also reviews applications for Removal-Fill Permits. For hydrokinetic projects, Removal-Fill Permits will likely be required for any anchoring structures and for transmission cables attaching onshore and offshore project components.

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

6.2 List of Oregon Acronyms

AEAU	Alternative Energy and Alternative Use Program	ODFW	Oregon Department of Fish and Wildlife
DEQ	Oregon Department of Environmental Quality	ODOJ	Oregon Department of Justice
DLA	Draft License Application	OPRD	Oregon Parks and Recreation Department
DLCD	Oregon Department of Land Conservation and Development	ORS	Oregon Revised Statutes
DOGAMI	Department of Geology and Mineral Industries	OWRD	Oregon Water Resources Department
DSL	Department of State Lands	PFMC	Pacific Fisheries Management Council
OAR	Oregon Administrative Rules	PPA	Preliminary Permit Application
OCMP	Oregon Coastal Management Program	SHPO	State Historic Preservation Office

6.3 Summary Table of Oregon Authorizations

Permit/Approval	Primary Legal Authority	Lead Agency	Anticipated Process Time
State Hydroelectric License	ORS § 543, Hydroelectric Projects	Oregon Water Resources Department	At least 8 months
Ocean Energy Facility Lease	OAR 141-140	Dept. of State Lands	Up to 6 months
Temporary Use Permit			
Removal-Fill Permit	ORS § 196.795-990	Dept. of State Lands	90-120 days
Ocean Shore Alteration Permit	ORS § 390, OAR 736-020	Oregon Parks and Recreation Dept.	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 six months
§ 401 Water Quality Certification	Clean Water Act § 401	Department of Environmental Quality	1 year ¹³⁰

¹³⁰ State agencies are often unable to make a certification decision within the one year review period because the administrative record is inadequate to support issuance of a certification. In such a case the state agency will often give applicants the option of letting the state make a “reasonable assurance” determination. This action allows the applicant to withdraw and resubmit the application once it contains adequate information. If the applicant does not choose to withdraw and resubmit the application, then the state agency will have to deny the certification request. When an application is withdrawn and resubmitted, the one year review period starts over. It is possible for this process to repeat several times before the state agency has an administrative record that will support water quality certification.

6.4 State Hydroelectric License

A state hydroelectric license authorizes the licensee to acquire and hold the right to use waters within the state, including waters over which the state has concurrent jurisdiction. The license also authorizes the construction, maintenance, and operation of dams, reservoirs, power houses, conduits, transmission lines, and all other works and structures necessary or convenient for the use of the waters in the generation and utilization of electricity. State law sets minimum standards for development of hydroelectric power and public interest considerations in the state and establishes a high level of protection for Oregon's natural resources.

A license may be issued to any qualified person for a period not exceeding 50 years. If the project is subject to regulation by FERC, the term will be concurrent with and expire upon expiration of the federal license for the project. Any person who proposes to operate a hydroelectric project in Oregon will apply for a state preliminary permit, which should be done concurrently with applying to FERC for a preliminary permit, if applicable.

Lead Agency: The Oregon Water Resources Department (OWRD) issues state hydroelectric licenses. The ODFW, DLCD, OPRD may also be involved.

Review Process: After receiving an application, OWRD has 15 days to determine whether the application is complete. If complete, then OWRD has 30 days to determine that the proposed use is not prohibited, assign a priority date, and complete an initial review determination. The OWRD then sends this to the applicant, and the applicant has 14 days to stop the process and get a refund.

After the 14 days, the clock officially starts, and OWRD has a maximum of 180 days to issue a final order. During the 180 days, OWRD must issue a public notice of the initial review determination, conduct and complete an agency review, issue a proposed final order, allow for a protest period, and issue a final order. If the proposed final order is protested, OWRD will hold a contested case hearing and issuance of a final order will take an additional 180 days (if simple) or 270 days (if complex).¹³¹

State law requires OWRD to make a determination of cumulative impacts of proposed hydroelectric projects and undertake a consolidated review of projects. No activity may result in a net loss of wild game fish, recreational opportunities, or natural resources. The consolidated review will be used to support OWRD's decision to approve or deny an individual application. In Oregon, a wave energy project is exempt¹³² from regulation under ORS §543.014 if:

1. The project generates electricity from wave energy;
2. The project is located within Oregon's Territorial Sea;
3. The nominal electric generating capacity of the project does not exceed five megawatts; and
4. A FERC license is *not* required to construct or operate the project.¹³³

Process Time: At least 8 months.

¹³¹ The Water Resources Commission uses the rules under *OAR 690-051* to process applications for permits to appropriate water for hydroelectric projects, preliminary permits, and hydroelectric licenses.

¹³² Except as provided in ORS §§ 543.050(3), 543.055, and 543.060

¹³³ A FERC license is not be required if the project is not connected to the electric grid.

Legal Authority: *Hydroelectric Projects (ORS § 543); ORS 543.255; Exemption for Wave Energy Projects (ORS § 543.014); OAR 690-051.*

6.5 Ocean Energy Facility Lease

An Ocean Energy Facility Lease is a written authorization to use a specific area of state-owned submerged and submersible land for one or more ocean energy conversion devices comprising a commercial operation. The lease term will be concurrent with and expire upon expiration of the federal license or authorization for the project.

Lead Agency: The Oregon Department of State Lands (DSL) issues Ocean Energy Facility Leases. The Oregon Department of Justice (ODOJ) and the 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 will 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 Territorial Sea Plan.

Once submitted, DSL will circulate the application to various local, state and federal agencies, other interested stakeholders including, but not limited to tribal governments, port districts, business and community organizations, fisher, recreationist and

conservation groups, and the holders of Department-issued authorizations within or immediately adjacent to the requested area for review and comment.

Legal Authority: *Rules Governing the Placement of Ocean Energy Conversion Devices On, In or Over State-Owned Land in the Territorial Sea*¹³⁴; *ORS 141-140.*¹³⁵

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

6.6 Temporary Use Permit

A Temporary Use Permit is a written authorization to use a specific area of state-owned submerged and submersible land for placement of ocean energy monitoring equipment or energy conversion devices for a research or demonstration project.

Lead Agency: The DSL is responsible for reviewing applications and issuing Temporary Use Permits. Other agencies likely to be involved in the review process include ODOJ, ODFW, and the SHPO.

The holder of a Temporary Use Permit 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 30 calendar days of the expiration date of the temporary use authorization, then it will expire. The term of a temporary use permit is the same as the term

¹³⁴

http://www.oregon.gov/DSL/LW/docs/final_wave_energy_rules_07.pdf

¹³⁵ Governs placement of ocean energy monitoring equipment, conversion devices, and associated equipment.

http://arcweb.sos.state.or.us/rules/OARS_100/OAR_141/141_140.html

of the authorization granted by FERC for the demonstration project.¹³⁶

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

Legal Authority: *OAR 141-140*¹³⁷

6.7 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 the Department of State Lands (DSL). A Removal-Fill Permit allows short-term use, usually less than one year, of a specific area of publically owned submerged and/or submersible land for a specific use under specific terms and conditions. For hydrokinetic projects, this permit will likely be required to set the anchoring structures and cables associated with any ocean energy project. Projects that require a DSL Removal-Fill Permit and a federal permit from the U.S. Army Corps of Engineers (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)*

¹³⁶ Except for educational/research institutions conducting a research project.

¹³⁷ http://arcweb.sos.state.or.us/rules/OARS_100/OAR_141/141_140.html

6.8 Ocean Shore Alteration Permit

An Ocean Shore 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 Shore 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.

Lead Agency: Generally, this permit is issued by the Oregon Parks and Recreation Department. However, if another agency is authorizing a transmission line (or other alteration) that will cross the ocean shore, then that agency will act as the lead for the Ocean Shore Alteration Permit and the OPRD should be included as a participating agency on the authorization decision. All affected federal, state and local government agencies (depending on the location, size and scope of the project) may also take part, including the COE, DSL, DOGAMI, DLCD, ODFW, SHPO, and Indian Tribes..

OPRD has the authority to regulate ocean shore alterations that may be needed for the onshore component of a wave energy facility, including the construction of shoreline protective structures, dune grading and other sand alterations, and the routing of pipelines and cables beneath the ocean shore.

Process Time: At least sixty days, but up to 105 days if a public hearing is required.¹³⁸

Legal Authority: *ORS § 390; OAR 736-020*

¹³⁸ 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.

6.9 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. § 307 of the CZMA requires that federally licensed or permitted activities¹³⁹ be consistent with state coastal management policies (e.g., land use planning statutes, marine spatial planning, and water quality standards). A *consistency determination* is the process used to implement this requirement for federal permits and licenses. 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 actions affecting coastal resources in Oregon must be consistent with the Oregon Coastal Management Plan (OCMP), as well as the enforceable policies and programs that have been incorporated into the OCMP (e.g., Removal-Fill Law, Oregon Beach Bill).

Lead Agency: The Department of Land Conservation and Development (DLCDC) 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 DLCDC often coordinates with other state resource agencies in determining consistency with the enforceable policies of the state, such as ODFW, DSL, DEQ,

¹³⁹ 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.

OWRD, and OPRD. Relevant federal agencies may also participate in the review.¹⁴⁰

Review Process: Oregon state law establishes the interagency coordination process and the decision implementation framework that applies to the siting and regulation of wave energy facilities in state waters. A consistency determination 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 certification should include all relevant environmental and biological documents.¹⁴¹ The certification process generally consists of four phases:

- i. Applicant prepares consistency certification along with necessary data and information¹⁴²;
- ii. DLCDC reviews the application for completeness;
- iii. DLCDC conducts the consistency review;
- iv. DLCDC issues a concurrence or an objection.¹⁴³

Instead of issuing an objection or a concurrence, the DLCDC 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,

¹⁴⁰ NOAA's Office of Ocean and Coastal Resource Management will provide mediation in the case of a CZMA dispute.

¹⁴¹ Therefore, the review process generally does not begin until NEPA and ESA documents (DEIS, BA) are available.

¹⁴² All "necessary data and information" includes copies of all federal, state, and local license and permits applications.

¹⁴³ If DLCDC fails to furnish the required notification within six months after receipt of its copy of the applicant's certification, the state's concurrence with the certification will be presumed.

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.

Process Time: Reviews generally take 45-90 days, but can take up to six months¹⁴⁴

Legal Authority: Coastal Zone Management Act, (16 USC § 1451, et seq); Ocean Resources Management Act (ORS § 196.405-515); OAR 660-015-0010(4)¹⁴⁵

6.10 6.10 Clean Water Act § 401 Water Quality Certification

The purpose of § 401 of the Clean Water Act (CWA) is for states to use its 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. A § 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. 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 U.S. 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 the Oregon Department of Environmental Quality (DEQ). The state Water Resources Department and the ODFW may participate in the WQC review process. Applications for certification must be filed with the Department of Environmental Quality (DEQ), except for applications filed with the COE pursuant to OAR 340-048-0032. DEQ coordinates its application review with the OWRD, but issues the certification independently for all hydroelectric projects licensed by FERC.

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. Public notice takes place when DEQ is ready to issue or deny the certification. If DEQ grants water quality certification, it is in effect saying that the proposed activity will comply with state water quality standards. Additionally, a DEQ may "conditionally grant" certification by placing limitations or conditions on the certification to ensure compliance with the water quality requirements.

DLCD 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.

¹⁴⁴ Reviews will not commence until all applications for other federal, state and local permits have been submitted and are actively being processed.

¹⁴⁵ www.oregon.gov/LCD/docs/goals/goal19.pdf

Oregon may also waive water quality certification, either affirmatively or involuntarily. If the state fails to act on a certification request within one year after receipt of a complete certification request, then it forfeits its authority to grant or deny certification.

Process Time: Upon receipt of a complete application, DEQ has up to one year to make a decision.¹⁴⁶

Legal Authority: *Clean Water Act § 401 (33 USC § 1341); OAR 340-048*¹⁴⁷

¹⁴⁶ However, rather than risk a rejection, applicants may withdraw and resubmit an application at DEQ's request to allow the agency another year to review.

¹⁴⁷ http://arcweb.sos.state.or.us/rules/OARs_300/OAR_340/340_048.html

6.11 Oregon Roadmaps

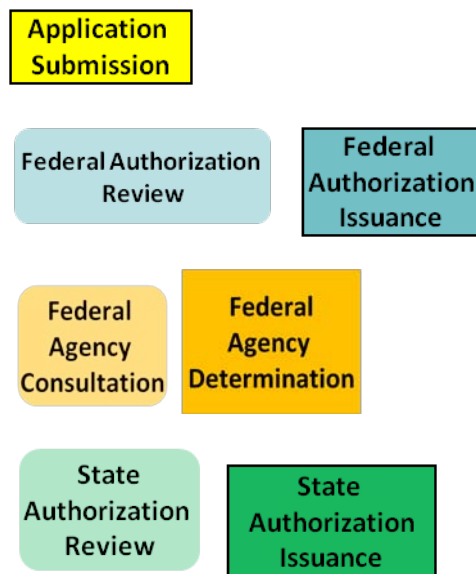
The following roadmaps are process schematics which show the approximate timing and sequence of the principle licensing, permitting and environmental review processes involved in siting hydrokinetic projects in the State of Oregon. Oregon’s state processes are overlaid with the federal processes in these roadmaps to show the relation of timing and sequence between of the state and federal authorizations. These roadmaps represent three scales of project development:

6-A Non-Grid Connected, Pilot Project: Small-scale hydrokinetic projects that are not connected to the electric grid do not require a license FERC, as no electricity is being transmitted. Projects of this scale are generally used for the purposes of testing and collecting data on device performance in the marine environment. This roadmap shows all the principle federal and state authorization processes *except* the FERC licensing process. In this situation, the COE would be the lead federal agency for the project NEPA review.

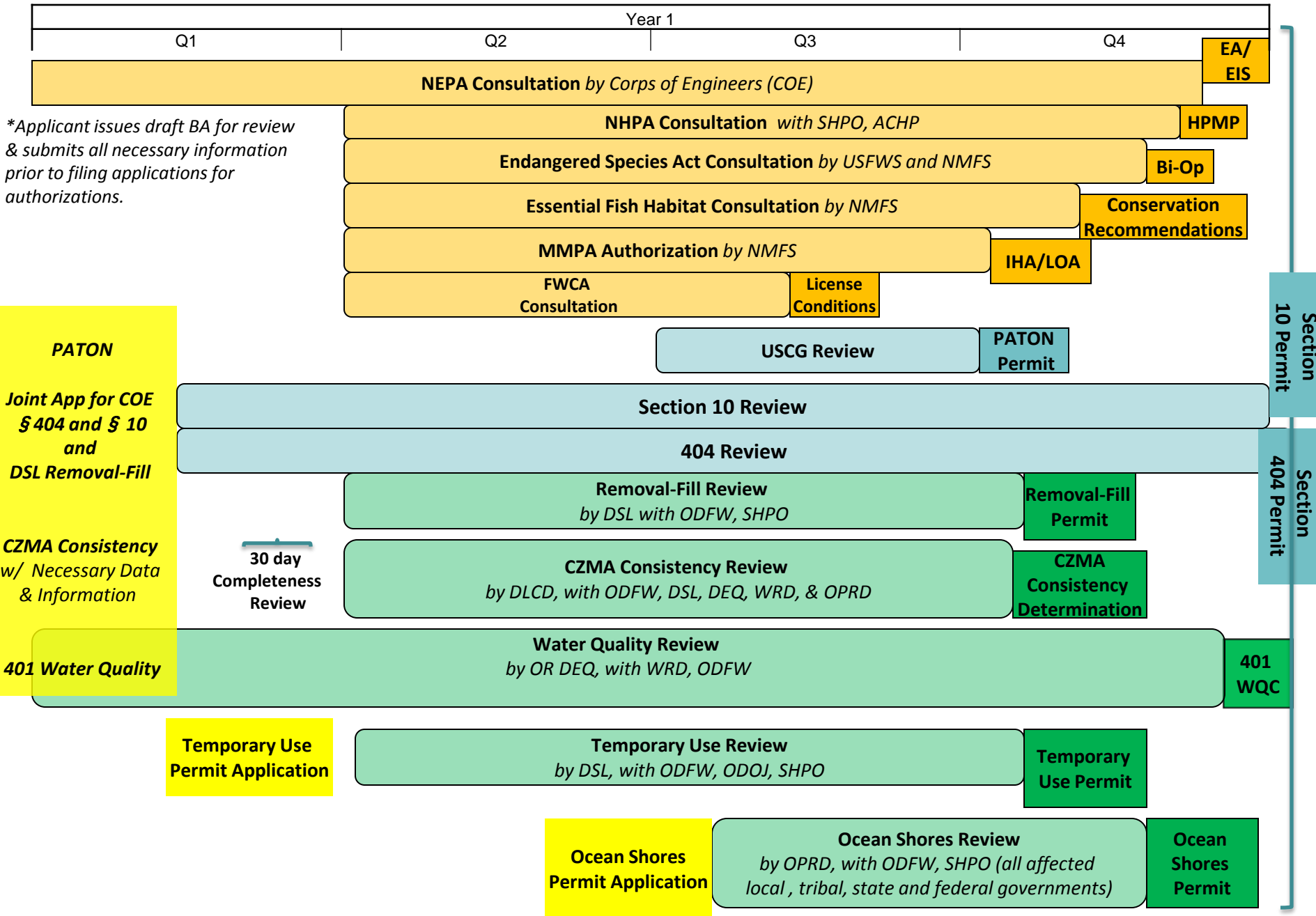
6-B Grid Connected, Pilot Project: Small-scale hydrokinetic projects that are connected to the electric grid may also be used to test and collect data on device performance in the marine environment. Since the project would be transmitting electricity, a FERC license is required. However, small-scale projects may be licensed under the FERC Pilot Process. This roadmap shows all the principle federal and state authorization processes, including the FERC Pilot Process. In this situation, FERC would be the lead federal agency for the project NEPA review.

6-C Grid Connected, Commercial Project: Commercial-scale hydrokinetic projects produce and transmit large amounts of electricity. This roadmap shows all the principle federal and state authorization processes, including the FERC Traditional License Process with Settlement Agreements. In this situation, FERC would be the lead federal agency for the project NEPA review.

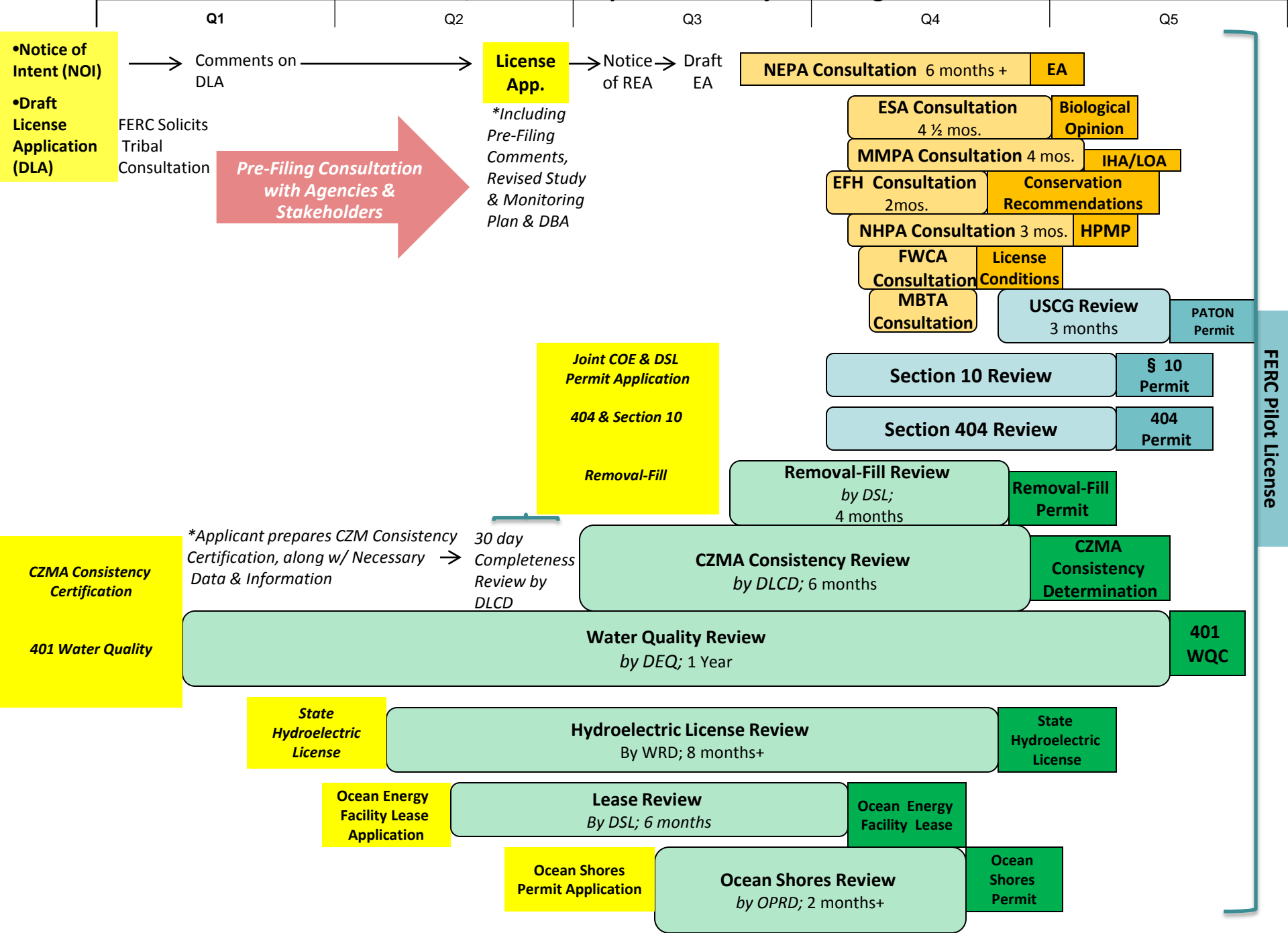
The types of authorizations are color coded in the roadmaps as follows:



Non-Grid Connected, Hydrokinetic Pilot Project in Oregon State Waters

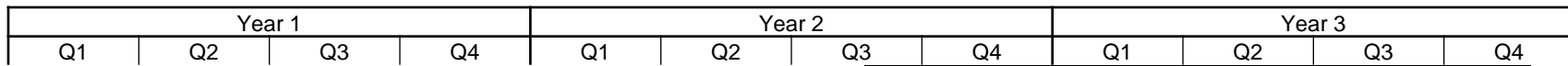


Grid-Connected, Pilot-Scale Hydrokinetic Project in Oregon State Waters



FERC Pilot License

Commercial Hydrokinetic Project in Oregon State Waters



•Notice of Intent (NOI)
•Draft License Application (DLA)

Comments on DLA

Consultation with Agencies & Stakeholders to develop Study & Monitoring Plan

FERC Solicits Tribal Consultation

Federal Hydroelectric License Application w/ Settlement Agreement

Notice of REA → Draft EIS

NEPA 1 Year+ EA/EIS

NHPA § 106 Consultation HPMP

ESA Consultation 4 ½ mos. Biological Opinion

EFH 2mos. Conservation Recommendations

MBTA Consultation FWCA Consultation License Conditions

MMPA 4 mos. IHA/LOA

USCG Review PATON Permit

Joint COE & DSL Permit Application
404 & Section 10
Removal-Fill

Section 10 Review § 10 Permit

404 Review 4 months § 404 Permit

Removal-Fill Review By DSL; 4 months Removal-Fill Permit

CZMA Consistency Certification
401 WQC

*Applicant prepares CZM Consistency Certification & all Necessary Data & Information → 30 day Completeness Review by DLCD

CZMA Consistency Review By DLCD; 6 months CZM Consistency Determination

Water Quality Review By DEQ; 1 Year 401 WQC

State Hydroelectric License Hydroelectric License Review by WRD; 8 months State Hydroelectric License

Ocean Energy Facility Lease Application Lease Review By DSL; 6 months Ocean Energy Facility Lease

Ocean Shores Permit Application Ocean Shores Review By OPRD; 3 mos Ocean Shores Permit

FERC License

6.12 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. #28, Ste. 965	Portland	OR	97232	971-673-1555
Department of State Lands	http://www.oregon.gov/DSL/index.shtml	775 Summer St. NE, Ste 100	Salem	OR	97301-1279	503-986-5200
Dept. of Land Conservation and Development	www.lcd.state.or.us	635 Capitol St., Ste. 150	Salem	OR	97301-2540	503-373-0050
Oregon Dept. of Environmental Quality	www.deq.state.or.us	811 SW 6th Ave.	Portland	OR	97204	800-452-4011
Oregon Dept. of Fish and Wildlife	www.dfw.state.or.us	3406 Cherry Avenue N.E.	Salem	OR	97303	503-947-6000
Oregon Dept. of Land Conservation and Development	www.lcd.state.or.us	635 Capitol St. NE, Ste. 150	Salem	OR	97301-2540	503-373-0050
Oregon Parks and Recreation Dept.	www.oregon.gov/OPRD	725 Summer St. NE, Ste. C	Salem	OR	97301	800-551-6949
Oregon Water Resources Dept.	www.wrd.state.or.us	725 Summer St. NE, Ste. A	Salem	OR	97301	503-986-0900
Pacific Fisheries Management Council	www.pcouncil.org	7700 NE Ambassador Pl., Ste. 101	Portland	OR	97220-1384	866-806-7204
State Historic Preservation Office	http://egov.oregon.gov/OPRD/HCD/	725 Summer St. NE, Ste. C	Salem	OR	97301	800-551-6949
U.S. Fish and Wildlife Service	www.fws.gov	911 NE 11th Ave	Portland	OR	97232	503-231-6118

7 California

7.1 Introduction to California Agencies & Authorizations

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.¹⁴⁸ 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. The CCC is responsible for issuing coastal development permits and federal 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 Quality Control Boards (WQCB) 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 WQCB implements the state Water Quality Certification.

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. The SLC is responsible for authorizing the use of the state's sovereign submerged lands with State Tidelands Leases, and it is also responsible for ensuring that proposed projects comply with the California Environmental Quality Act (CEQA).

Within the Department of Fishing and Game, 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 the Department of Fish and Game 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.

7.2 List of California Acronyms

CCC	California Coastal Commission
CCMP	California Coastal Management Program
CDFG	California Department of Fish and Game
CDP	Coastal Development Permit
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
EIR	Environmental Impact Report
ESHA	Environmentally Sensitive Habitat Areas
LCP	Local Coastal Programs
SLC	State Lands Commission

¹⁴⁸ 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.

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. tit. 23, § 3.28	State or Regional Water Quality Control Board	Up to one year
CZMA Federal Consistency Determination	Coastal Zone Management Act §307	California Coastal Commission	Up to six 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	Up to one year for EIR; up to 105 days for Negative Declaration ¹⁴⁹
State Tidelands Lease	California Public Resources Code		Varies
California Endangered Species Consultation	California Endangered Species Act	Department of Fish and Game, Habitat Conservation Planning Branch	Varies

¹⁴⁹ 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.

7.4 Clean Water Act § 401 Water Quality Certification

The purpose of § 401 of the Clean Water Act (CWA) is for states to use its 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. A § 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 California, WQC applications for projects requiring a FERC license are reviewed by the State Water Resources Control Board (State Board) so WQC applications for commercial-scale hydrokinetic projects will likely be reviewed by the State Board as well.¹⁵⁰

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 will be reviewed by the Regional Water Resources Control Board (Regional Board).

Review Process: When an application for certification is received and deemed complete¹⁵¹ the State or Regional Board will

commence its review. In its application, a project proponent must identify all the local, state and federal authorizations required for the projects, 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 the California Environmental Quality Act (CEQA) must 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.¹⁵²

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

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.

¹⁵² 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.

¹⁵⁰ 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/progr_ams/cwa401/index.shtml

¹⁵¹ A complete WQC application must include an application fee, deposit, and all information required by state law. Upon receipt, the certifying Board will

any recommendations from interested stakeholders, the Board will issue its decision.

Certification – A WQC is issued if the proposed project will 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.

Denial - The State will deny a WQC application if the project will 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.¹⁵³

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: States are provided up to one year to issue a WQC decision.¹⁵⁴

¹⁵³ 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 CA State Water Control Board.

¹⁵⁴ The one-year time frame commences upon the agency’s receipt of a complete application. State agencies are often unable to make a certification decision within the one year review period because the administrative record is inadequate to support

Legal Authority: *Clean Water Act § 401 (33 USC § 1341); CAL. CODE REGS. tit. 23, §§ 3830-3869*¹⁵⁵

7.5 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 activities¹⁵⁶ be consistent with state coastal management policies (e.g., land use planning statutes, marine spatial planning, and water quality standards).¹⁵⁷ A *consistency determination* is the process used to implement this requirement for federal permits and licenses. Hydrokinetic projects will likely require a §404 Permit, a §10 Permit, and/or a FERC license, all of which require a consistency review.

issuance of a certification. In such a case the state agency will often give applicants the option of letting the state make a “reasonable assurance” determination. This action allows the applicant to withdraw and resubmit the application once it contains adequate information. If the applicant does not choose to withdraw and resubmit the application, then the state agency will have to deny the certification request. In either case, the one-year review period starts over. It is possible for this process to repeat several times before the state agency has an administrative record that will support water quality certification.

¹⁵⁵http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/401regs.pdf

¹⁵⁶ 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.

¹⁵⁷ The federal consistency review requirements and procedures are detailed in 15 CFR § 930.

Lead Agency: For the California coast, except San Francisco Bay,¹⁵⁸ the state agency responsible for implementing the CZMA is the California Coastal Commission (CCC or Coastal Commission). The Coastal Commission, 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 agency¹⁵⁹ 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.

Review Process: First, an applicant must submit its consistency certification to the CCC along with the necessary data and information.¹⁶⁰ The CCC then reviews the certification for completeness. Upon determining that the

¹⁵⁸ In San Francisco Bay, the administering agency is the San Francisco Bay Conservation and Development Commission.

¹⁵⁹ The federal action agency is the agency with the authority issue a license or permit for the proposed action.

¹⁶⁰ 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.

consistency certification is complete, the review period begins.¹⁶¹

After reviewing the applicant's consistency certification, CCC staff will prepare a report and recommendation for CCC action.¹⁶² At this point, the CCC will issue a public notice. After the public notice, during a public hearing, the CCC will decide whether to concur with or to object to the consistency certification.

The 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 the CCC's conditional concurrence will be treated as an objection.

If the 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 the 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 the CCC will identify the additional information and the reason it is necessary.

If the CCC objects to the consistency certification, then the federal action agency

¹⁶¹ If the CCC does not receive a complete consistency certification, then within 30 days of its receipt of the incomplete information the CCC will notify the applicant and the federal permitting agency that its consistency certification is incomplete and that the review period has not begun. The CCC's notice will identify the missing information.

¹⁶² If the 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.

cannot issue a permit or license for the proposed project. The applicant has 30 days from receipt of an objection letter to file an appeal to the Secretary of Commerce.¹⁶³

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 the 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*¹⁶⁴; *California Coastal Act (PUB. RES. CODE §§ 30200 - 30265)*

7.6 Coastal Development Permit

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 zone¹⁶⁵.

¹⁶³ 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.

¹⁶⁴ All consistency documents are reviewed for consistency with the California Coastal Management Program (CCMP). The Coastal Commission'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. The Commission believes that this process allows it to authorize federal activities in manner that minimizes impacts to coastal resources and is consistent with the CCMP. <http://www.coastal.ca.gov/fedcd/fedcndx.html>

¹⁶⁵ In California, the coastal zone extends seaward to the state's outer limit of jurisdiction (approximately

New development in the coastal zone that requires a permit from the Coastal Commission 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: The 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 the CCC.¹⁶⁶ 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 will require a permit from the Coastal Commission as well as a permit from the local government.

LCPs contain the ground rules for future development and protection of coastal resources in the 74 coastal cities and counties. The 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 unique characteristics of individual local coastal communities, regional

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.

¹⁶⁶ However, coastal development permits in the San Francisco Bay area are administered by the San Francisco Bay Conservation and Development Commission, not the California Coastal Commission.

and statewide interests and concerns must also be addressed to conform with California Coastal Act goals and policies.¹⁶⁷

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 requirements of an LCP 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 (ESHA), 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.

Coastal Commission staff is also generally available to answer questions concerning interpretation and application of an LCP in specific situations. To apply for a CDP, contact the appropriate CCC office for information on the application process.¹⁶⁸ 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, EIR or EIS),¹⁶⁹ and verification of all other permits,

permissions or approvals applied for or granted by local, state or federal agencies.

Once a coastal development permit 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 coastal 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 the Coastal Commission.

Process Time: Once the CCC staff deems an application complete, then the proposal will be presented to the Coastal Commission within 49 days, unless the applicant waives this deadline.¹⁷⁰ The time required to receive authorization to proceed with construction will depend 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)*¹⁷¹

7.7 California Environmental Quality Act

The basic goal of the California Environmental Quality Act (CEQA) is to develop and maintain a high-quality environment now and in the future. The CEQA requires California’s public agencies to identify the significant

¹⁶⁷ Upon request or on its own motion, the Commission may amend a certified LCP to accommodate energy and public works projects if the local government refuses to do so (PRC 30515).

¹⁶⁸ <http://www.coastal.ca.gov/cdp/cdp-forms.html>

¹⁶⁹ For more information see the next section in this chapter on California’s Environmental Quality Act.

¹⁷⁰ Review times vary for coastal permits from local jurisdictions.

¹⁷¹ <http://www.coastal.ca.gov/coastact.pdf>

environmental effects of their actions¹⁷² 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 will be the city or county where the project is located.¹⁷³ 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 Environmental Impact Report (EIR). Additionally, each responsible agency must consider the lead agency's CEQA documentation prior to issuing their approval for the project. The lead agency's determination will be final and conclusive.¹⁷⁴

The CEQA is implemented according to the *CEQA Guidelines*, which are regulations that explain and interpret the law for both the public

¹⁷² Public agencies' actions involve issuing permits for private projects, constructing public facilities, or adopting regulations, policies or plans.

¹⁷³ 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.

¹⁷⁴ Exceptions include: (1) the decision is successfully challenged, (2) circumstances or conditions change, or (3) a responsible agency becomes a lead agency.

agencies responsible for administering the 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 will 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 & 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 documentation¹⁷⁵ if the EIS or FONSI will be prepared before an EIR or Negative Declaration would be completed and the 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 that the lead agency will need 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

¹⁷⁵ 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.

preparation of the joint document so that the federal agency will not need to prepare a separate document for the same project.¹⁷⁶

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 will be 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 NEPA document.

CEQA Review Process: In cases where a NEPA review is not required, the CEQA review process will proceed 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

¹⁷⁶ 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.

lead agency will determine if the activity qualifies as a project subject to the CEQA.¹⁷⁷ 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 the CEQA, then formal environmental evaluation commences.

Initial Study: For projects subject to the CEQA, the lead agency will first perform an initial study to identify environmental impacts of the project and determine whether the identified impacts are “significant.”¹⁷⁸ As soon as a lead agency determines that an initial study is required, the lead agency 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 Environmental Impact Report). Based on its finding of significance, the lead agency will prepare either a Negative Declaration or an EIR.¹⁷⁹

Negative Declaration: If the agency does not find any significant impacts, it will prepare a Negative Declaration. If the agency finds

¹⁷⁷ 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.

¹⁷⁸ 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.

<http://www.califaep.org/userdocuments/File/2009%20CEQA%20Statute%20and%20Guidelines2.pdf>

¹⁷⁹ 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.

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 will give public notice and provide 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 will make a decision on the project and file a Notice of Determination to document its decision.¹⁸⁰

Environmental Impact Report (EIR): If the agency finds significant impacts, it will prepare 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 environmental impact report is required for a project, the lead agency issues a Notice of Preparation stating that an environmental impact report will be prepared. This notice will be sent to all involved agencies.¹⁸¹

Within 30 days of receiving the Notice of Preparation, each involved agency must respond to the lead agency with specific details

¹⁸⁰ Local agencies file Notice of Determination with the County Clerk, and state agencies file Notice of Determination with the Office of Planning and Research.

¹⁸¹ 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.

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.¹⁸² 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.¹⁸³

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 will last at least 30 but not more than 60 days. After the public review period, the lead agency will prepare 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 will make a decision on the project and file a Notice of Determination to document its decision.¹⁸⁴

¹⁸² Such meetings will be convened by the lead agency no later than 30 days after the meetings are requested. On request, the OPR will assist in convening meetings that involve state agencies.

¹⁸³ 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.

¹⁸⁴ Local agencies file a Notice of Determination with the county clerk, and state agencies file a Notice of Determination with the Office of Planning and Research.

Process Time: Up to one year for an EIR; up to 105 days for a Negative Determination.¹⁸⁵

Legal Authority: *California Environmental Quality Act (PUB. RES. CODE § 21000 et seq)*¹⁸⁶; *CEQA Guidelines (CAL. CODE REGS. tit. 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: The State Lands Commission (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). The 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 the SLC.

¹⁸⁵ 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.

¹⁸⁶ <http://ceres.ca.gov/ceqa/>

The SLC has broad mandates for protection of California's natural environment. A 1983 California Supreme Court ruling¹⁸⁷ 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. The 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.

The Commission staff often prepares Environmental Impact Reports (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 the California Coastal Commission, the San Francisco Bay Conservation and Development Commission, and the COE.

Review Process: The 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 the 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

¹⁸⁷ Nat'l Audubon Soc'y v. Superior Court, 33 Cal. 3d 419 (1983).

cross a transmission line, the lease or easement will likely requires approval from the California Public Utilities Commission, 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 \$25 filing fee, as well as a processing fee for SLC services competed.

Additionally, the SLC issues leases competitively through a bidding process. The SLC will issue a Notice of Intent¹⁸⁸ 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. The SLC will then (at the specified time and place) publicly open or have opened the sealed bids and will award the highest or lowest responsible bidder, as appropriate. However, if the 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 §§ 6501-6509.

¹⁸⁸ 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

The California Endangered Species Act (CESA)¹⁸⁹ generally parallels the main provisions of the federal Endangered Species Act (ESA); like the ESA, the CESA prohibits the "taking" of listed species except as otherwise provided in state law.¹⁹⁰ 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 the California Department of Fish and Game (CDFG)¹⁹¹ State lead agencies are required to consult with CDFG to ensure that any action it undertakes is 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 § 7 consultation. If a biological opinion is required, is likely that the CDFG would work with the federal resource agencies involved in its development and then adopt the biological opinion through a consistency determination process. Alternatively, CDFG may authorize incidental

¹⁸⁹ 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.

¹⁹⁰ FISH & GAME CODE § 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

¹⁹¹ <http://www.dfg.ca.gov/habcon/>

take by issuing permit under FISH & GAME CODE § 2081. In either case, the conditions will be determined by CDFG 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 agency¹⁹² reviews the project for potential impacts on listed species and designated critical habitat. If the federal action agency is able to determine that this project is *not likely to adversely affect the federally-listed species or adversely modify designated critical habitat*, the agency will request that the appropriate resource agencies (e.g., NMFS,

¹⁹² 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).

USFWS, and CDFG) 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 will write a letter formalizing the *determination of not likely to adversely affect listed species or adversely modify designated critical habitat*.¹⁹³

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 consultation¹⁹⁴ then the resource agency will develop a Biological Opinion for the project, which will provide authority for (1) the incidental take of listed species (for CDFG this would likely be a permit under FISH & GAME CODE § 2081); (2) provide measures designed to avoid or minimize adverse effects; or (3) issue a jeopardy opinion.

If a project affects a state endangered species only, CDFG 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 occur the applicant must contact the Department of Fish and Game directly. In all cases, CESA emphasizes early consultation to avoid potential impacts and to develop appropriate mitigation planning.

¹⁹³ 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.

¹⁹⁴ Federal regulations allow 135 days to complete formal consultation under § 7 of the ESA.

Process Time: Varies; if it is concurrent with the federal ESA consultation, the generally anticipated process time is 4 ½ months.

Legal Authority: *California Endangered Species Act (FISH & GAME CODE § 2050 et seq)*¹⁹⁵

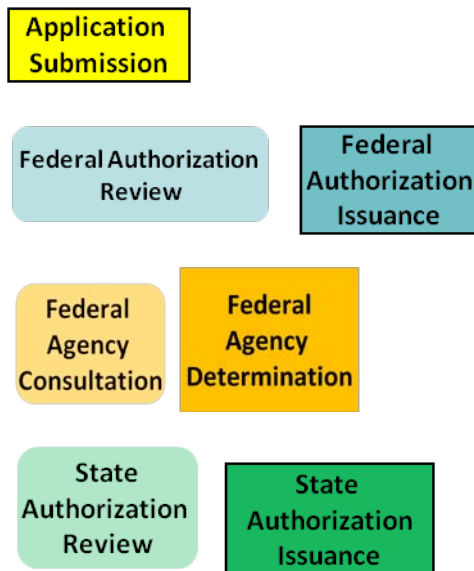
¹⁹⁵ http://www.dfg.ca.gov/habcon/cesa/incidental/Co deRegT14_783.pdf

7.10 California Roadmap

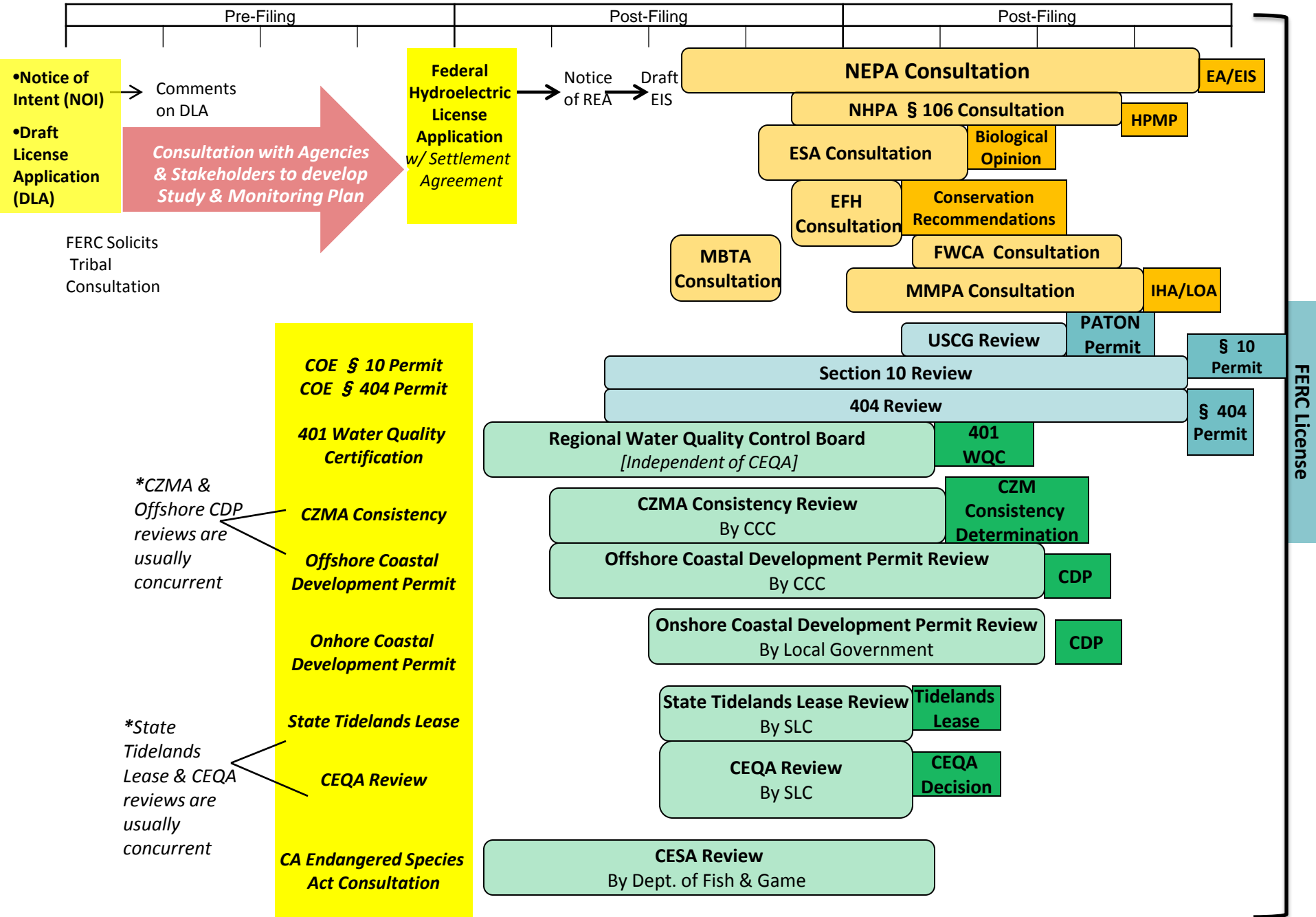
The following roadmap is a process schematic which shows the approximate timing and sequence of the principle licensing, permitting and environmental review processes involved in siting hydrokinetic projects in the State of California. Although the substantive review for a full-scale facility will likely be more comprehensive than the review for a pilot project, the review process for each will be very similar—same authorizations, same sequence, etc. Therefore, just one roadmap depicts both pilot and full-scale projects in California. Also, this roadmap does not include an overall time scale because process times can vary substantially on a case-by-case basis. Depending on project complexity, location and the information submitted, the various state and local reviews in California can take as little as a few weeks or up to several years.

7-A Grid Connected, Pilot or Commercial Project: This roadmap depicts the process for both pilot and commercial projects that transmit electricity to the grid, and it shows all the principle federal and state authorization processes. A FERC license is required in both cases, so FERC is the lead federal agency for the project NEPA review.

As with the other roadmaps, California’s state processes are overlaid with the federal processes in these roadmaps to show the relation of timing and sequence between of the state and federal authorizations. The types of authorizations are color coded in the roadmaps as follows:



Grid-Connected Hydrokinetic Project in California State Waters



7.11 California Agency Contact Information

Agency	Web Address	Mailing Address	City	State	Zip	Phone
California Coastal Commission	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/	50 California St # 2600	San Francisco	CA	94111-4728	415-352-3600
CA Natural Resources Agency (CEQA)	http://ceres.ca.gov/ceqa/	650 Capitol Mall. 5th Floor	Sacramento	CA	95814	916-445-5011
State Water Resources Control Board	http://www.swrcb.ca.gov/	1001 I Street	Sacramento	CA	95814	916-341-5455
Regional Water Resources Control Board	http://www.swrcb.ca.gov/about_us/contact_us/docs/rwgcb_directory.pdf	Varies by Region	Varies by Region	CA	Varies by Region	(916) 341-5455
California Dept. of Fish and Game	www.dfg.ca.gov	1416 9th St.	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

8 Hawaii

8.1 Introduction to Hawaii Agencies & 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.¹⁹⁶ 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 Coastal Zone Management Program (CZM) 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 Coastal

Zone Management Act (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 are 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.¹⁹⁷

Further, the Department of Hawaii Homelands has special regulatory authority on certain areas in the state, such as native Hawaiian burial grounds. Hydrokinetic developers should contact the Department of Hawaii Homelands when initiating consultation with state and county agencies.¹⁹⁸

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), which

¹⁹⁶ See Appendix A for a list of state and county agencies and offices and contact information.

¹⁹⁷ The Environmental Notice is available for public review on the 8th and 23rd of each month on OEQC's website:

http://oeqc.doh.hawaii.gov/Shared%20Documents/Environmental_Notice/current_issue.pdf

¹⁹⁸ <http://hawaii.gov/dhhl>

took effect on July 1, 2009, to establish a full-time, temporary renewable energy facilitator position within the Department of Business, Economic Development, and Tourism (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 facility¹⁹⁹ 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 will hold a public meeting on the island on which the renewable energy facility will 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.

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 (18) 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
- DBEDT** Department of Business, Economic Development and Tourism
- EIS** Environmental Impact Statement
- DEIS** Draft Environmental Impact Statement
- DLNR** Dept. of Land and Natural Resources
- DOH** Dept. of Health
- CWB** Clean Water Branch
- DOT** Department of Transportation
- EISPN** EIS Preparation Notice
- FEIS** Final Environmental Impact Statement
- LUC** Land Use Commission
- 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
- LUDBA** Land Use District Boundary Amendment

¹⁹⁹ 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.

8.4 Summary Table of Hawaii Authorizations

Authorization/ Review	Primary Legal Authority	Lead Agency	Anticipated Process Time
Water Quality Certification	Clean Water Act Section § 401; HRS 342D; HAR Title 11, Chapter 54	Clean Water Branch, Department of Health	Up to one year
CZMA Federal Consistency Determination	CZMA Section307; 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, Dept. of Land & Natural Resources (DLNR)	3 – 5 months
Shoreline Setback Area Permit	County Code	County Planning Department	Up to one year
State Environmental Impact Statement	HRS 343	Varies ²⁰⁰	6 – 18 months
Land Use District Boundary Amendment	HRS 205	State Land Use Commission (LUC), DBEDT	One year
Conservation District Use Permit	HRS 183C	Office of Conservation & Coastal Lands (OCCL), DLNR	6 months
State Ocean Lease, Right-of-Entry	HRS 190D, HRS 171-95	Land Division, DLNR	6 – 18 months

²⁰⁰ 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.

8.5 Clean Water Act § 401 Water Quality Certification

The purpose of § 401 of the Clean Water Act (CWA) is for states to use its 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. A § 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 (CWB) administers the § 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.²⁰¹

Review Process: Processing of § 401 WQC applications begins when an application for certification is received and deemed complete. A complete application must include an application fee of \$1000 and all information required by state law.²⁰² If the application is incomplete, the applicant shall be notified in writing of any additional information or action needed. The application information

²⁰¹<http://hawaii.gov/health/environmental/water/cleanwater/forms/wqc-index.html>

²⁰² The filing fee is not refundable if the application is terminated or if the WQC is denied.

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.

The DOH will review the application and draft an initial determination. If the DOH's initial determination indicates that the proposed activity can be certified, then the applicant must prepare a public notice. The DOH will issue 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 the DOH may issue the WQC.

If significant public interest does exist, then the applicant must publish a Notice of Public Hearing, and the DOH must hold a Public Hearing to address the concerns. If the concerns are adequately addressed and resolved through the Public Hearing, then the DOH may issue the WQC. However, if the public hearing does not adequately address the concerns, then the 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), the DOH will issue a final determination for issuance or denial of the § 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: DOH has up to one year to issue a certification decision.²⁰³ Project proponents should apply for WQC at least six months prior to the start of “discharge” activities.

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

8.6 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 activities²⁰⁴ be consistent with state coastal management policies (e.g., land use planning statutes, marine spatial planning, and

²⁰³ The one-year time frame commences upon the agency’s receipt of a complete application. State agencies are often unable to make a certification decision within the one year review period because the administrative record is inadequate to support issuance of a certification. In such a case the state agency will often give applicants the option of letting the state make a “reasonable assurance” determination. This action allows the applicant to withdraw and resubmit the application once it contains adequate information. If the applicant does not choose to withdraw and resubmit the application, then the state agency will have to deny the certification request. In either case, the one-year review period starts over. It is possible for this process to repeat several times before the state agency has an administrative record that will support water quality certification.

²⁰⁴ 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.

water quality standards).²⁰⁵ A *consistency determination* is the process used to implement this requirement for federal permits and licenses. Hydrokinetic projects will likely require a §404 Permit, a §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, the Office of Planning (OP) - located within the 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 the 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, Conservation District Use Applications, Special Management Areas Permits, and state environmental review documentation.

Review Process: Upon application for a federal license or permit, a project proponent must supply a copy of its consistency determination to the state. Hawaii’s Office of Environmental

²⁰⁵ The federal consistency review requirements and procedures are detailed in 15 CFR § 930.

Quality Control (OEQC) issues public notice of consistency reviews in *The Environmental Notice*.²⁰⁶

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 Water Quality Certification; 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, the 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.²⁰⁷

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

²⁰⁶ 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.

²⁰⁷ An objection to a consistency determination may be appealed to the Secretary of Commerce.

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 U.S.C. 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 they establish the types of uses allowed in various areas of the county, including designated Special Management Areas (SMA). To ensure that coastal land uses and activities comply with the CZM Program, each county regulates shoreline²⁰⁸ development through their own SMA permit system.²⁰⁹ 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.

²⁰⁸ "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)

²⁰⁹ 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.honolulu.gov/PermitInfo/; *Maui* www.co.maui.hi.us/; *Kauai* www.kauai.gov/default.aspx?tabid=61; *Hawaii* www.hawaii-county.com/directory/dir_plan.htm

Depending on the scope of the proposed activity, either a *minor*²¹⁰ or *major* SMA permit may be required. Most hydrokinetic projects will likely require a major SMA permit. An SMA Major 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 an SMA Major permit is subject to review by the respective County Planning Department.²¹¹

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 environmental assessment (EA) or an environmental impact statement (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.²¹² 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.²¹³

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 archeological 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 are notified of the proposed development activity and that public hearing notices are 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.²¹⁴ 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

²¹⁰ *SMA Minor* authorizes 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.

²¹¹ SMA Permits for activities in areas that fall within a Community Development District are administered by the Office of Planning.

²¹² Sequence of events varies by county.

²¹³ Except in Honolulu, where the City Council issues the final decision.

²¹⁴ Applications are available for review at the respective County Planning Department.

8.8 Shoreline Setback Areas

Within Special Management Areas (SMAs), the Hawaii CZM program also provides for shoreline setback areas (SSAs). The SSAs generally extends 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 shoreline setback areas. 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 the 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 this survey to DLNR with the certification application. A fee of \$75 must

accompany an application.²¹⁵ Applicants are also responsible for reimbursement of any costs incurred by the State for processing of the shoreline certification, such as travel costs for site inspections. DLNR will inform 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.²¹⁶

Once an application and the required materials are submitted and deemed complete, the state land surveyor will review 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

²¹⁵ 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.

²¹⁶ <http://www.state.hi.us/dlnr/land/Forms/SC-Application.pdf>

shoreline certification. Detailed information on how to file an appeal is available online.²¹⁷

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 their own Shoreline Setback Area (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 Shoreline Setback Area (SSA) Permits. Two types of SSA permits exist:

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 shoreline setback area 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 for shoreline permitting procedures:

Maui www.co.maui.hi.us/index.aspx?NID=696

Honolulu www.honolulu.gov/PermitInfo/

Hawaii www.co.hawaii.hi.us/forms/planforms.html

Kauai www.kauai.gov/default.aspx?tabid=61

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 affects 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

²¹⁷ <http://hawaii.gov/dlnr/land/administrative-rules/Ch13-222-Amend-Compil-Stand-Rev.pdf>

8.11 State Environmental Impact Statement

Hawaii state 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 include the use of state or county lands or funds; use of conservation district lands; use within a shoreline setback area; and use of an historic site or district²¹⁸.

The Office of Environmental Quality Control (OEQC) implements the state environmental review law, commonly known as the “Environmental Impact Statement Law.” For hydrokinetic projects, an environmental impact statement (EIS) will be required before a project may be implemented.²¹⁹ 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.²²⁰ Since most hydrokinetic projects will also require a NEPA review, the Hawaii state agencies will work with the federal agencies to coordinate the process by preparing joint environmental impact statements with concurrent public review and processing at the state and federal levels.²²¹

²¹⁸ Including sites listed in or under consideration for listing in the National or Hawaii Register (HRS 343-5).

²¹⁹ Any proposal to develop a renewable energy facility requires the preparation of a draft environmental impact statement (HRS 343-5).

²²⁰ <http://oeqc.doh.hawaii.gov/Shared%20Document/Forms/AllItems.aspx>

²²¹ The Environmental Impact Statement Law directs Hawaii offices and agencies to cooperate and

Lead Agency: The approving agency, which is 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. If there is a question as to which state or county agency is the approving agency, then the OEQC will consult with the affected agencies and designate the approving agency.

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 potential environmental effects and to request to become a consulting party.

After receiving comments on the EISPN, the applicant must prepare a Draft Environmental Impact Statement (DEIS) that discuss 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 periodic bulletin, and the public has 45 days from the date of its publication to comment on the DEIS.

Next, the applicant will prepare a Final Environmental Impact Statement (FEIS) that includes and responds to all comments made

coordinate to the fullest extent possible (HRS 343-5).

on the DEIS. Within 30 days of receiving the FEIS, the approving agency must issue its determination of acceptance or non-acceptance²²². 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.

Process Time: Six to eighteen months, depending on the project scope, size, location, etc.

Legal Authority: “Environmental Impact Statement Law” Chapter 343 HRS

8.12 State Land Use Law & 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 Hawaii Land Use law places all lands and waters in the state into one of four districts that are characterized by different permissible uses:

²²² 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 fifteen days.

URBAN DISTRICT- The Urban District generally includes 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- The Agricultural District includes 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 the Conservation District includes all sovereign submerged lands seaward of the shoreline. The Conservation District also includes 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 Land Use Commission (LUC), within DBEDT, is responsible for administering this state-wide zoning law. The LUC establishes the district boundaries for the entire State. The LUC is also responsible for authorizing land uses not explicitly allowed in a particular district.

Private landowners, developers, and state and county agencies may petition the LUC for boundary changes by applying for a Land Use District boundary Amendment (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 the LUC for a Special Use Permit to authorize activities.

However, 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).

The Conservation District is 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.²²³ 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.

²²³ As outlined in HAR Chapter 13-5, Subchapter 3 http://www.hawaii.gov/dlnr/occl/rules/Ch13_5.pdf

8.13 Conservation District Use Permit

Any use of land in the 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: The Office of Conservation and Coastal Lands (OCCL), within the DLNR, is responsible for CDUP review and issuance. OCCL provides a Conservation District Use Application (CDUA) that is specific to marine activities.²²⁴ The Marine CDUA form, along with detailed application instructions, is available on the OCCL website.²²⁵

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. The 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 Conservation District Use Applications.

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

²²⁴ "Marine activities" include "energy or water research, scientific, and educational activities in, on, or under state marine waters or submerged lands."

²²⁵ <http://hawaii.gov/dlnr/occl/documents-forms/applications-forms/CDUA-marine.pdf>

Natural Resources (BLNR).²²⁶ Detailed environmental review information is also required. The project's DIES should be attached to the CDUA, and the final EIS 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.²²⁷ 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.²²⁸

Notice of CDUA is published in the environmental bulletin. If the 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 the BLNR.

²²⁶ In situations where the state of Hawaii is the landowner, the application requires the signature of the Chairperson of the BLNR. Since advanced water power projects will be located in state waters, the state of Hawaii would be considered the landowner.

²²⁷ 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.

²²⁸ Information requirements for these plans are explained in the instructions section of the Marine CDUA form.

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 in ways that 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.²²⁹

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

²²⁹ <http://hawaii.gov/dlnr/land/>

negotiations with DLNR.²³⁰ Because hydrokinetic projects will 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 Dept. 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 (EIS) 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”

²³⁰ HRS Section 171-95

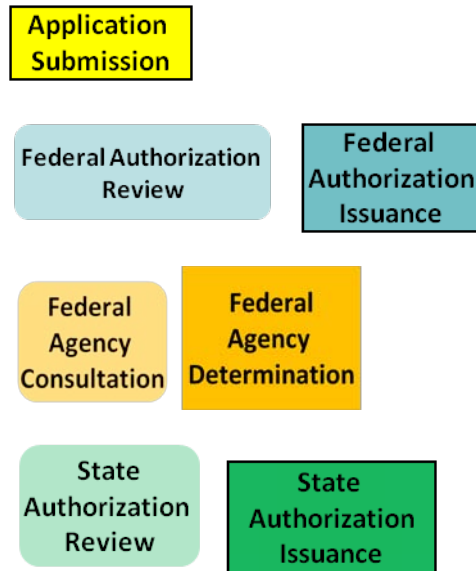
8.15 Hawaii Roadmaps

The following roadmaps are process schematics which show the approximate timing and sequence of the principle licensing, permitting and environmental review processes involved in siting hydrokinetic projects in the State of Hawaii. Hawaii’s state processes are overlaid with the federal processes in these roadmaps to show the relation of timing and sequence between of the state and federal authorizations.

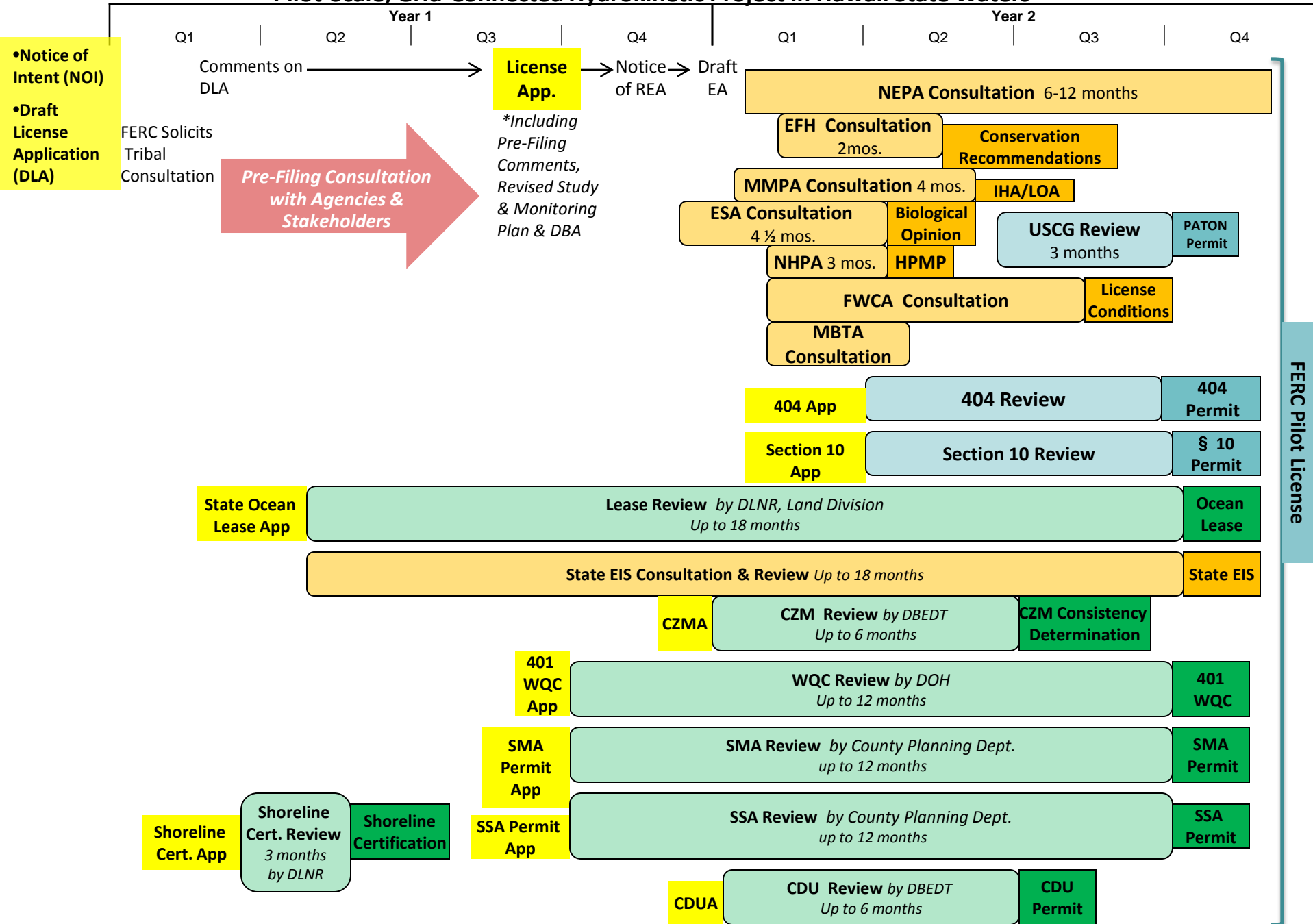
8-A Grid Connected, Pilot Project: Small-scale hydrokinetic projects that are connected to the electric grid may also be used to test and collect data on device performance in the marine environment. Since the project would be transmitting electricity, a FERC license is required. However, small-scale projects may be licensed under the FERC Pilot Process. This roadmap shows all the principle federal and state authorization processes, including the FERC Pilot Process. In this situation, FERC would be the lead federal agency for the project NEPA review.

8-B Grid Connected, Commercial Project: Commercial-scale hydrokinetic projects produce and transmit large amounts of electricity. This roadmap shows all the principle federal and state authorization processes, including the FERC Traditional License Process with Settlement Agreements. In this situation, FERC would be the lead federal agency for the project NEPA review.

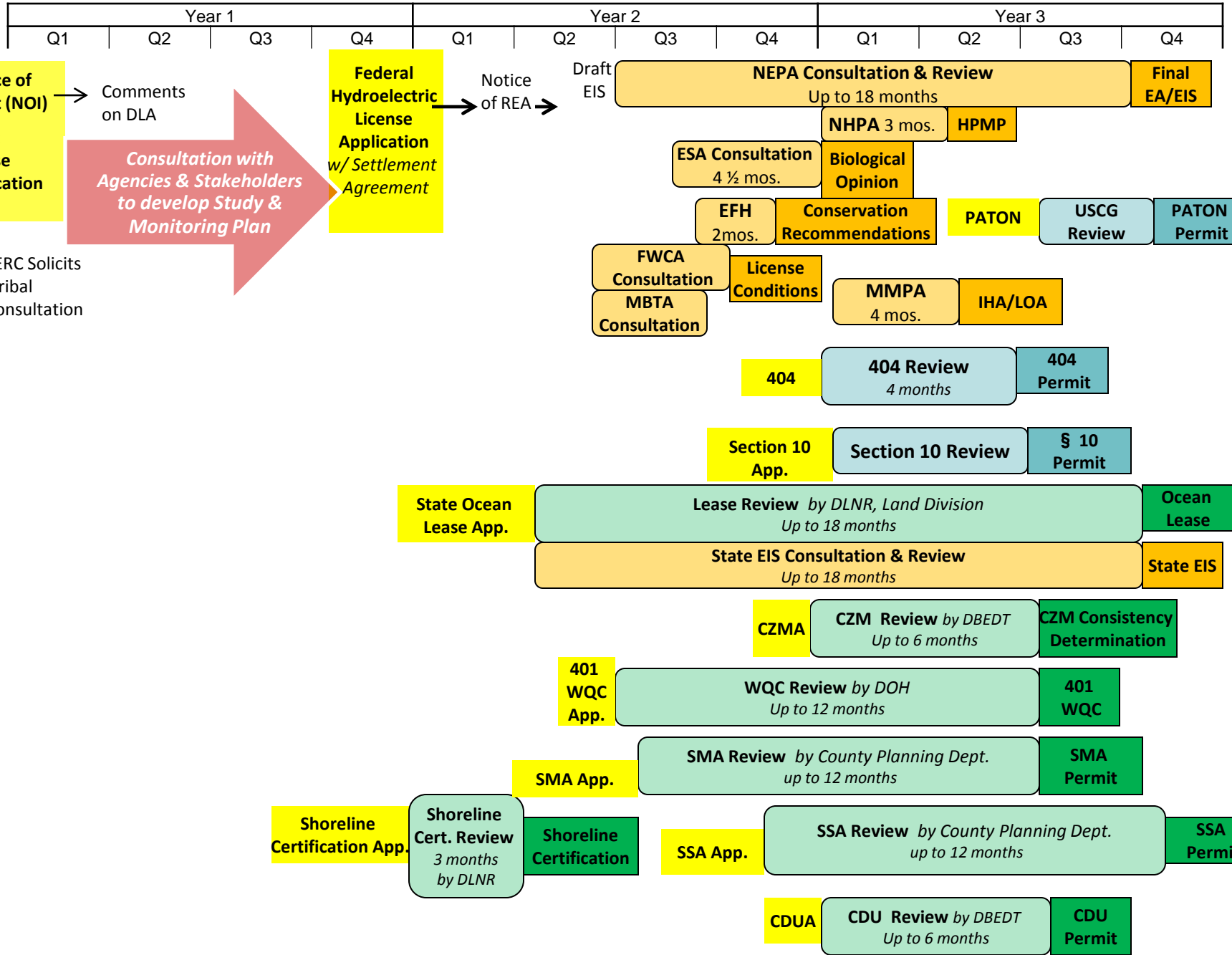
The types of authorizations are color coded in the roadmaps as follows:



Pilot-Scale, Grid-Connected Hydrokinetic Project in Hawaii State Waters



Commercial Hydrokinetic Project in Hawaii State Waters



FERC License

8.16 Hawaii Agency Contact Information

Agency	Web Address	Mailing Address	City	State	Zip	Phone
Department of Business, Economic Development and Tourism (DBEDT)	www.hawaii.gov/dbedt	P.O. Box 2359	Honolulu	HI	96804-2359	808-586-2423
DBEDT, Office of Planning	www.hawaii.gov/dbedt/op/	P.O. Box 2359	Honolulu	HI	96804-2359	808-587-2846
Department of Health (DOH)- Clean Water Branch	www.hawaii.gov/health/environmental/water/cleanwater/contact/cleanwater/index.html	P.O. Box 3378	Honolulu	HI	96801-3378	808-586-4309
DOH- Office of Environmental Quality Control	www.hawaii.gov/health/environmental/oeqc/index.html	235 South Beretania St. Suite 702	Honolulu	HI	96813	808-586-4185
Department of Land and Natural Resources (DLNR)	www.state.hi.us/dlnr	1151 Punchbowl St., Room 330	Honolulu	HI	96813	808-587-0400
DLNR- Land Division	http://hawaii.gov/dlnr/land/	1151 Punchbowl St., Room 220	Honolulu	HI	96813	808-587-0414
DLNR- Office of Conservation and Coastal Lands	http://hawaii.gov/dlnr/occl/	1151 Punchbowl St., Room 131	Honolulu	HI	96813	808-587-0377
Land Use Commission	www.luc.state.hi.us	P.O. Box 2359	Honolulu	HI	96804-2359	808-587-3822
Office of Planning Honolulu County	http://www.honoluluopp.org/	650 So. King St.	Honolulu	HI	96813	
Office of Planning Maui County	http://www.co.mauhi.us/index.aspx?nid=121	250 S. High St., Kalana Pakui Bldg Ste. 200	Wailuku	HI	96793	808-270-7735
Office of Planning Kauai County	www.kauai.gov/planning	4444 Rice St., Suite 473	Lihue	HI	96766	808-241-4050
Office of Planning Hawai'i County	http://www.co.hawaii.hi.us/directory/dir_plan.htm	101 Pauahi St. Ste. 3	Hilo	HI	96720	808-961-8288

9 Maine

9.1 Introduction to Maine Agencies & 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.²³¹ 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.

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.²³² Nearly

²³¹ 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 M.R.S.A., Sec. 632.3)

²³² For the purposes of this document, “Maine’s coastal waters” refers to marine waters between the mean low water line and the three-mile limit of state ownership. “Submerged lands” refers to lands beneath Maine’s coastal waters.

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.

For most hydrokinetic facilities, MWDCA permits and § 401 Water Quality Certifications are issued through the Department of Environmental Protection (DEP). The DMR may also act as a consultant to the DEP in authorizing changes to wetland areas through issuance of a § 401 WQC or a NRPA Permit. The DEP is responsible for any proposed project that uses tidal action as a source of power—regardless of location. The DEP will also administer these permitting processes for wave power projects in organized areas of the state (i.e., municipalities), while the Land Use Regulation Commission (LURC) will administer these processes for wave power projects in unorganized territories. However, it is likely that most hydrokinetic projects will be sited entirely or mostly in organized areas of the state.

Several other state agencies also have authority over siting hydrokinetic projects in Maine. The Department of Inland Fisheries and Wildlife (DIFW) and the Department of Marine Resources (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 Public Lands (BPL) in the Department of Conservation will be required, and the DMR acts as a consultant to BPL on potential impacts to existing uses. For the on-shore components of hydrokinetic projects, a Mandatory Shoreland Zoning Act Permit will likely be needed. Additionally, proposed projects that may be near historic or archeological resources will be reviewed by the Maine Historic

Preservation Commission (MHPC). Finally, a Coastal Zone Management Federal Consistency Certification, coordinated by the State Planning Office (SPO), will be required for all federally authorized hydrokinetic projects.

9.2 Ocean Energy Task Force

Over the last few years, numerous individuals, groups, and businesses have worked diligently to advance development of Maine's vast renewable ocean energy resources. In November 2008, Main Governor John Baldacci 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.²³³ One of the main elements of this group's mission is 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 is 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 the spring of 2009, the task force submitted initial recommendations regarding the enactment of state law to establish General Permits to facilitate ocean energy research and demonstration projects in limited areas of Maine's coastal waters. On

²³³ The State Planning Office established and is maintaining a project-specific website to keep the public informed of the task force's work. <http://www.maine.gov/spo/specialprojects/OETF> Meeting notices, minutes, presentations, and other related information are regularly posted.

June 4, 2009 the State of Maine 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. On August 19, 2009, the Federal Energy Regulatory Commission (FERC) and the State of Maine signed a Memorandum of Understanding (MOU) to coordinate procedures and schedules for review of tidal energy projects off the coast of Maine.²³⁴

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 said they will establish coordinated schedules for processing applications and will include specific milestones for each party to complete their respective processes. Further, FERC and Maine will work 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 task force continued through the spring and summer, and will

²³⁴ This MOU is the first of its kind on the East Coast; FERC has signed two similar agreements with Oregon and Washington.

culminate with the submission of a final report and recommendations by October 31st 2009.

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

DEP	Department of Environmental Protection
LURC	Land Use Regulatory Commission
BPL	Bureau of Public Lands
MHPC	Maine Historic Preservation Commission
SPO	State Planning Office
DIFW	Department of Inland Fisheries & Wildlife
DMR	Department of Marine Resources
ASC	Atlantic Salmon Commission
MSZA	Mandatory Shoreline Zoning Act
MESA	Maine Endangered Species Act
MWDCA	Maine Waterway Development & Conservation Act
NOI	Notice of Intent to File

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 & Conservation Act	Dept. of Environmental Protection or Land Use Regulation Commission	Up to 12 months
General Permit for Tidal Energy Demonstration Project		Dept. of Environmental Protection	2 months
Maine Endangered Species Act Review	Maine Endangered Species Act	Dept. of Marine Resources &/or Dept. of Inland Fisheries & Wildlife	4 ½ months
§ 401 Water Quality Certification	Federal Clean Water Act §§ 401	Dept. of Environmental Protection or Land Use Regulation Commission	Up to one year
CZMA Federal Consistency Determination	Coastal Zone Management Act, Coastal Management Policies Act	State Planning Office	Up to 6 months
Submerged Lands Lease	Submerged Lands Law 12 M.R.S.A. §§ 1861-1867	Dept. of Conservation, Bureau of Public Lands	2 months
Historic Review	27 M.R.S.A. §§ 501-503	Maine Historical Preservation Commission	3 months
Mandatory Shoreland Zoning Act Permit	Mandatory Shoreland Zoning Act 38 M.R.S.A. §§ 435-449	Municipality, DEP	35 Working Days from receipt of complete application

9.5 Maine Waterway Development & Conservation Act

Pursuant to the Maine Waterway Development and Conservation Act (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: The 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 the Department of Environmental DEP, and the LURC administers the permitting process for non-tidal power projects in unorganized territories.²³⁵

Review Process: Once an application is deemed complete, it is accepted for processing.²³⁶ DEP and LURC 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.²³⁷ Once submitted, the application is circulated among various State agencies and the DEP's Division of Environmental Assessment. The agencies are asked to review and comment on the application, taking into consideration of 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 LURC 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 standards²³⁸ will be met; and (3) that 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.²³⁹ 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.

²³⁵ 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 LURC jurisdiction.

²³⁶ 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.

²³⁷ Because each individual project is different, applicants are advised to consult with staff of the lead agency prior to submitting an application.

²³⁸ Please refer to the State's Water Classification Program (38 M.R.S.A. Sections 464-470) for a description of the applicable water quality standards and the classification of all waters of the State.

²³⁹ DEP has issued rules that further detail the statute's requirements (see DEP rules chapter 450).

Process Time: DEP will make a decision within 60 days accepting the application for processing.

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, the 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.

Lead Agency: DEP is the lead agency for all hydrokinetic projects that use tidal action as a source of power, regardless of location.²⁴⁰

Information Requirements: Along with the application to the DEP, project proponents must

²⁴⁰ Likewise, the DEP is the water quality certifying agency for all activities including the licensing and relicensing of existing hydropower projects.

provide written evidence that the applicant has submitted an application to FERC for a pilot project license, a copy of the FERC license application, a description of the waters of the State in which the proposed project will be located, a description of the project facilities, and information regarding the physical environment and anticipated environmental effects of the proposed project. The project proponent must also provide the DEP a copy of the Environmental Assessment issued by FERC.

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 Permit.²⁴¹ 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, nongovernmental organizations and members of the public likely to be interested in the project.

Review Process: Applications should be filed with the DEP. At least 30 days prior to filing an application, applicants must publish a Notice of Intent to File (NOI) 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

²⁴¹ 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.

“finding of no significant impact” pursuant to the National Environmental Policy Act.

After reviewing all application materials, supporting documentation, and agency comments, the DEP will make a decision as to whether or not the requirements for issuance of a General Permit under the MWDCR have been met. A General Permit is valid for the term of the FERC pilot project license issued for the project. The 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 accepting the application for processing, the DEP will make a decision as to whether or not a General Permit will be issued. If the DEP determines that the authorization requirements have not been met, it will notify the applicant in writing. If the 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 taking²⁴² 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.²⁴³

²⁴² The term “take” is broadly defined to include habitat alteration as well as more direct harm to protected species.

²⁴³ By definition, each of these species is also listed as threatened or endangered under the federal Endangered Species Act. Therefore, while state take provisions do not apply to marine listed species, the

Lead Agency: When reviewing applications for proposed projects, the 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 the Department of Inland Fisheries and Wildlife (DIFW) and the Department of Marine Resources (DMR).²⁴⁴ DEP seeks input and considers recommendations from both the DMR and the DIFW regarding potential impacts to endangered or threatened species.

Review Process: In the course of the state’s permitting process, DMR and DIFW will work, in cooperation with the 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., the Corps) 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 ESA review for a proposed project, which takes at least 4 ½ months.

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

federal ESA's incidental take provisions do cover these species.

²⁴⁴ Most inland endangered or threatened species fall under the jurisdiction of the DIFW, as do certain seabirds and shorebirds. Marine species on the State's threatened and endangered list fall under the jurisdiction of the DMR.

9.8 Clean Water Act § 401 Water Quality Certification

The purpose of § 401 of the Clean Water Act (CWA) is for states to use its 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. A § 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.

Hydrokinetic projects will likely require a §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 is the WQC agency for projects in organized municipalities, and LURC exercises this authority in unorganized areas of the State. LURC and DEP 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,²⁴⁵ project proponents must submit various supporting documents, studies and reports, as well as the appropriate fees. When an application is deemed complete, the official § 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, the 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 MWDC 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: States are provided up to one year to issue a decision.²⁴⁶ For demonstration

²⁴⁵ www.maine.gov/dep/blwq/docstand/dams/hydro_state_process/hydro1.pdf

²⁴⁶ The one-year time frame commences upon the agency's receipt of a complete application. State agencies are often unable to make a certification decision within the one year review period because the administrative record is inadequate to support issuance of a certification. In such a case the state agency will often give applicants the option of letting the state make a "reasonable assurance"

tidal projects, Maine will take action within 60 days of application for processing.²⁴⁷

Legal Authority: §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 activities²⁴⁸ be consistent with state coastal management policies (e.g., land use planning statutes, marine spatial planning, and water quality standards).²⁴⁹ A *consistency determination* is the process used to implement this requirement for federal permits and licenses. Hydrokinetic projects will likely require a §404 Permit, a §10 Permit, and/or a FERC license, all of which require a consistency review.

The Maine Coastal Program²⁵⁰ is a partnership among local, regional, and state agencies

determination. This action allows the applicant to withdraw and resubmit the application once it contains adequate information. If the applicant does not choose to withdraw and resubmit the application, then the state agency will have to deny the certification request. In either case, the one-year review period starts over. It is possible for this process to repeat several times before the state agency has an administrative record that will support water quality certification.

²⁴⁷ Pursuant to the State's August, 19 2009 MOU with FERC.

²⁴⁸ 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.

²⁴⁹ The federal consistency review requirements and procedures are detailed in 15 CFR § 930.

²⁵⁰ The SPO has prepared an excellent guide to the federal consistency review process

wherein no one agency or department is responsible for the entire coast; rather, a networked approach is used to manage Maine's coastal resources. The DEP, LURC, 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.²⁵¹

Lead Agency: Since the enforceable policies for the coastal program consist of various laws and regulations administered by different state agencies and municipalities, the State Planning Office (SPO) serves as the point of contact and coordinator for the federal consistency review process. The SPO 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 will 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 SPO to inform the State of the proposed action. This early coordination helps determine the scope of the review.

<http://www.maine.gov/spo/coastal/downloads/federalconsistencyguidebook.pdf>

²⁵¹ These are commonly referred to as "core laws" in Maine.

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) will review the applicant's submission for completeness and notify the applicant and federal agency within 30 days whether all necessary data and information has been provided.²⁵²

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, SPO 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, the SPO must notify the

²⁵² 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.

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.²⁵³ 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.²⁵⁴ If the State objects to the consistency certification, the federal agency cannot issue the license or permit.²⁵⁵

For more detailed information on filing procedures, information requirements, and public comment opportunities, applicants may contact SPO directly.²⁵⁶

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 U.S.C. 1451 *et seq.*, 15 CFR 930); Coastal Management Policies Act (38 MRS §1801)

²⁵³ 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.

²⁵⁴ 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.

²⁵⁵ Unless the Secretary of Commerce overrides the State's objection pursuant to 15 CFR Part 930, Subpart H.

²⁵⁶ Contact information is available at: <http://www.maine.gov/spo/contact/index.htm>

9.10 Submerged Lands Lease

Proposed projects that would be located in, on or under state-owned submerged lands²⁵⁷ 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 the Department of Conservation's Bureau of Public Lands (BPL).

Review Process: Project proponents must first make a written request for a lease or easement to the BPL, which will then send a Submerged Lands Application to the project proponent.²⁵⁸ 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.

The 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 will be a 30 day period during which any party may provide comments pertaining to the application.²⁵⁹

BPL will seek expert advice regarding potential impacts from State and Federal agencies such as DMR, DEP, SPO, 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 rights²⁶⁰ in, on, or over state-owned submerged lands.

To protect and/or compensate²⁶¹ for loss of public trust resources, BPL may place certain

²⁵⁷ Submerged lands encompass the areas from mean low water to the three-mile limit of the State's Territorial Sea.

²⁵⁸ Forms are available from the Submerged Lands Program www.maine.gov/doc/parks/programs/sublands/index.html

²⁵⁹ 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.

²⁶⁰ Public trust rights include fishing, waterfowl hunting, navigation, and recreation; and/or services and facilities for commercial marine activities.

²⁶¹ Under its current authority, BPL has indicated that it intends to consider lease fees, compensation, and related matters regarding offshore renewable

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 will review the materials and issue 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 shall issue 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 than those contained in the permit and may not frustrate achievement of the purpose of the project.²⁶²

Legal Authority: 12 M.R.S.A. §§ 1801 and 1862-1867

9.11 Historic Properties Review

If a project site includes, or is adjacent to, properties with buildings or structures over fifty years of age, or is in an archaeologically sensitive area, including potentially archeological resources that are beneath coastal waters, then the authorizing agency should consult with the Maine Historic Preservation Commission (MHPC) as to what information and/or conditions are necessary to protect the archeologically or historically significant resources.

energy development on a case-by-case basis. BPL has also indicated that it is considering proposed legislation to further clarify this authority.

²⁶² Sec. B-1. 12 MRSA §1862, sub-§2, ¶F

Lead Agency: The 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 will generally notify the MHPC about the project and provide information for review. The MHPC will respond to requests for review within thirty 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, the 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, the MHPC may request an archeological 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, the MHPC will consult 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 the MHPC, and the MHPC's work load. In most cases, submission of all of the

materials on the appropriate list²⁶³ will result in completion of the review process in less than 30 days.

Legal Authority: 27 M.R.S.A. §§ 501-503

9.12 Mandatory Shoreline Zoning Act

This law focuses on shoreland areas near coastal areas, wetlands, great ponds, rivers, and larger streams. The Mandatory Shoreland Zoning Act (MSZA) helps prevent and control water pollution; protect fish spawning grounds, bird and wildlife habitat; project buildings and lands from flooding and accelerated erosion; protect archeological²⁶⁴ 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.

The MSZA requires municipalities to protect shoreland areas through adopting shoreland zoning maps and ordinances that provide for what types of activities may occur in certain areas.²⁶⁵ The Act also gives municipalities

²⁶³ Lists of required materials for project reviews are available at www.maine.gov/mhpc/project_review/required/index.html

²⁶⁴ 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, unreasonable erosion and sedimentation is prevented by means of adequate, and timely stabilization measures.

²⁶⁵ 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-

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 the MSZA in areas where cables make landfall and the power is transferred to the electric grid.

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. The DEP has a Shoreland Zoning Unit to assist municipalities and citizens in enforcing and complying with the MSZA.²⁶⁶

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 will notify the applicant either that the application is a complete application, or, if the application 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 the 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 will expire. If a substantial start is made within one year of issuance of the permit, then the applicant will have one additional year to complete

forested freshwater wetlands ten or more acres in size, and areas within 75 feet of the high-water line of a stream.

²⁶⁶ Contact information for the DEP Shoreland Zoning Unit is available at www.maine.gov/dep/blwq/docstand/szpage.htm

construction of the project, at which time the permit will expire.

Process Time: The Planning Board or the Code Enforcement Officer will approve, approve with conditions, or deny 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 will occur 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 M.R.S.A., §§ 435-449

9.13 Other Relevant Agencies & Laws in Maine

In addition to the authorizations identified above, siting hydrokinetic projects in Maine will involve various other relevant authorities; other authorities which may be involved in the siting process are discussed in this section.

Projects proposed in areas under jurisdiction of the LURC must be consistent with the zoning adopted by the LURC for that area.²⁶⁷ If the proposed project is a prohibited use under the LURC'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 the LURC 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 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.²⁶⁸ As such, the Certificate of Public Necessity is not included in this chapter.²⁶⁹

Another agency that may be involved in project siting is the Atlantic Salmon Commission (ASC). The mission of the ASC 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. The ASC is now part of the Maine Department of Marine Resources' Bureau of Sea-run Fish and Habitat. The 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 interfaces with state

²⁶⁷ As set forth in Chapter 10 of the Commission's Rules and Regulations. www.maine.gov/doc/lurc/reference/rulechapters/ch10-04.pdf

²⁶⁸ See P.L. 2007, ch. 148 § 2 (enacting 35-A M.R.S.A. § 3132, sub-§1-B).

²⁶⁹ 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.

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.

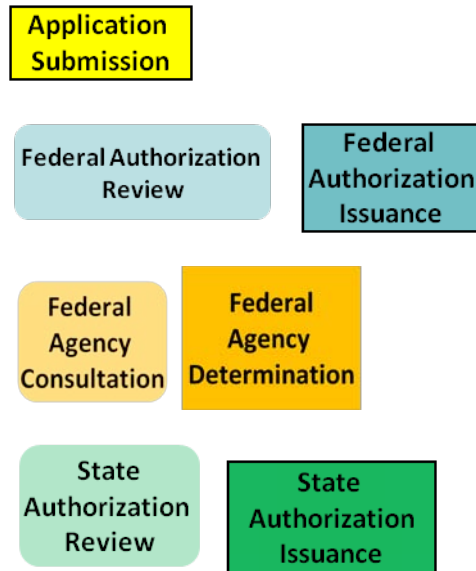
9.14 Maine Roadmaps

The following roadmaps are process schematics which show the approximate timing and sequence of the principle licensing, permitting and environmental review processes involved in siting hydrokinetic projects in the State of Maine. Maine’s state processes are overlaid with the federal processes in these roadmaps to show the relation of timing and sequence between of the state and federal authorizations.

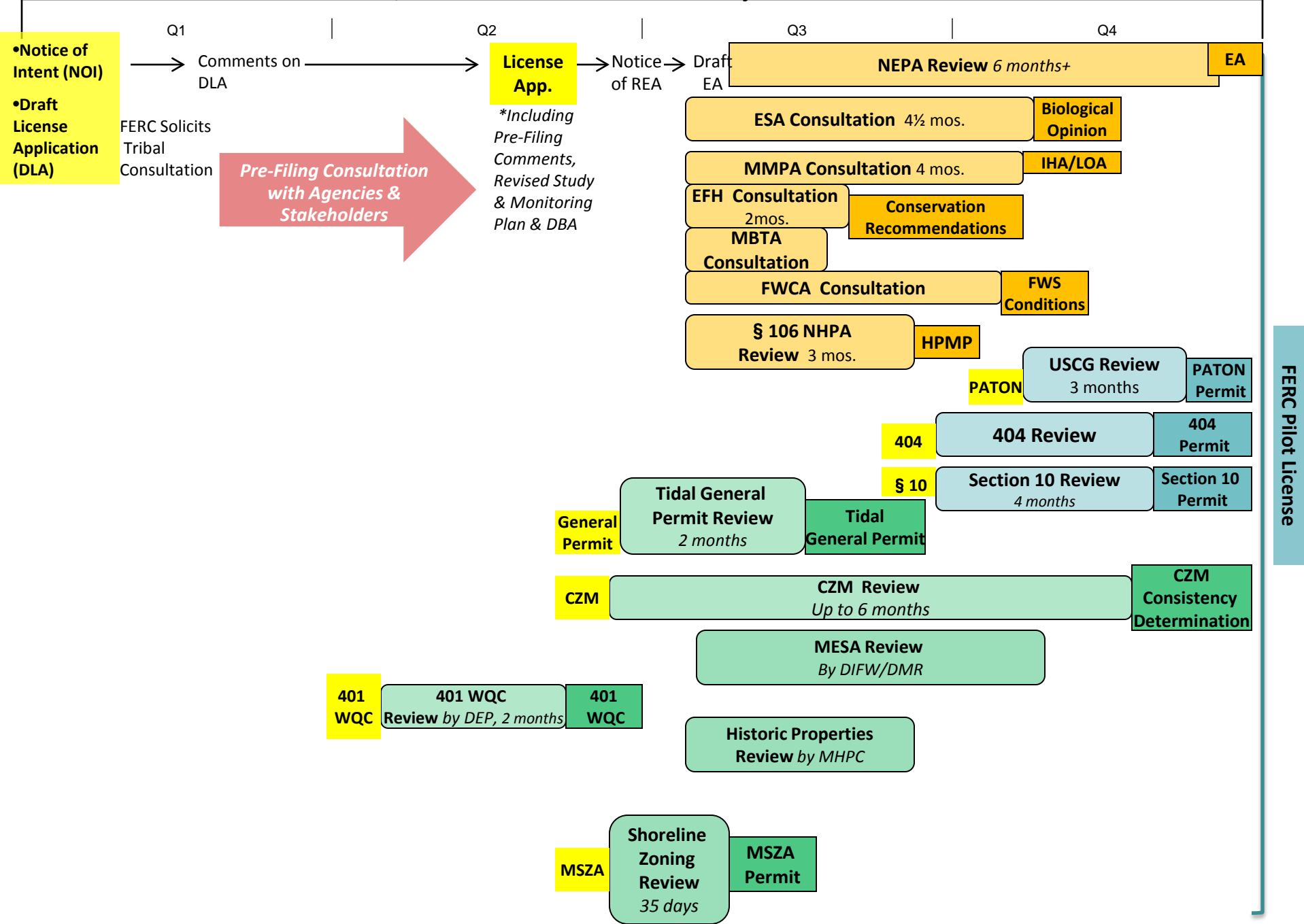
9-A Grid Connected, Pilot Project: Small-scale hydrokinetic projects that are connected to the electric grid may also be used to test and collect data on device performance in the marine environment. Since the project would be transmitting electricity, a FERC license is required. However, small-scale projects may be licensed under the FERC Pilot Process. This roadmap shows all the principle federal and state authorization processes, including the FERC Pilot Process. In this situation, FERC would be the lead federal agency for the project NEPA review.

9-B Grid Connected, Commercial Project: Commercial-scale hydrokinetic projects produce and transmit large amounts of electricity. This roadmap shows all the principle federal and state authorization processes, including the FERC Traditional License Process with Settlement Agreements. In this situation, FERC would be the lead federal agency for the project NEPA review.

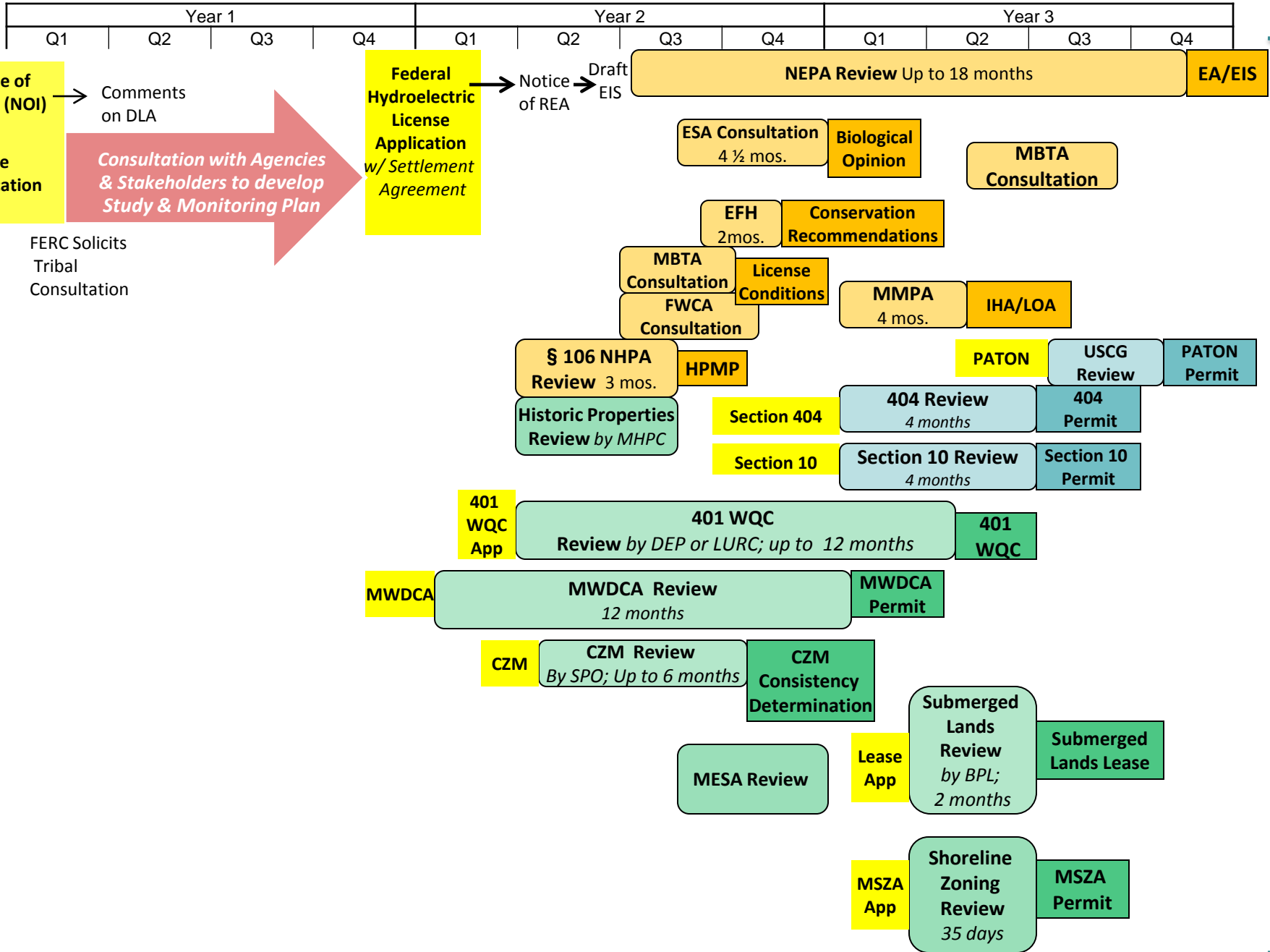
The types of authorizations are color coded in the roadmaps as follows:



Pilot-Scale, Grid-Connected Tidal Power Project in Maine State Waters



Commercial Hydrokinetic Project in Maine State Waters



FERC License

9.15 Maine Agency Contact Information

Agency	Web Address	Mailing Address	City	State	Zip	Phone
Dept. of Environmental Protection	http://www.maine.gov/de/p/index.shtml	17 State House Station	Augusta	ME	04333-0017	(207)287-7688
Land Use Regulatory Commission	http://www.maine.gov/doc/lurc/	22 State House Station	Augusta	ME	04333-0022	(207) 287-2631
Dept. of Conservation, Bureau of Public Lands	http://www.maine.gov/doc/parks/programs/sublands/index.html	23 State House Station	Augusta	ME	04333-0023	(207) 287-382
Historic Preservation Commission	http://www.maine.gov/mhpc/index.shtml	65 State House Station,	Augusta	ME	04333-0065	(207) 287-2132
State Planning Office	http://www.maine.gov/spo/	38 State House Station	Augusta	ME	04333-0038	(207) 287-6077
Department of Inland Fisheries and Wildlife	http://www.state.me.us/ifw/	41 State House Station	Augusta	ME	04333-0041	(207) 287-8000
Department of Marine Resources	http://www.maine.gov/dmr/index.htm	21 State House Station	Augusta	ME	04333-0021	(207) 624-6550

10 Massachusetts

10.1 Introduction to Massachusetts Agencies & 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, Coastal Wetlands Restrictions, Floodplains, Barrier beaches, Endangered Species, Underwater Archeological Resources, Historic Properties, and Municipal Harbor Plans.²⁷⁰ The principle authorizations required for constructing and operating a hydrokinetic facility in MA 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.²⁷¹

The construction of major energy production, transmission, or storage facilities²⁷² must be approved by the **Massachusetts Energy**

²⁷⁰The Office of Coastal Zone Management has an excellent guide, "Environmental Permitting in Massachusetts," that provides detailed information about the State's permitting processes.

<http://www.mass.gov/czm/permitguide/index.htm>

²⁷¹ 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.

²⁷² In this context, "facility" means any generating unit designed for or capable of operating at a gross capacity of 100 megawatts or more, including associated buildings, ancillary structures, transmission and pipeline interconnections that are not otherwise facilities.

Facilities Siting Board. Approval from the Siting Board is also required for new electric transmission lines of certain lengths and design ratings.²⁷³ 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**. 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 **Areas of Critical Environmental Concern (ACEC)**. ACEC's are complexes of natural resources that have been judged to be of statewide significance, and 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

²⁷³ 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).

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 fisheries Regulations** must also be considered.

Project construction for hydrokinetic facilities will likely involve dredging to install the subsea transmission line. In addition to a Section 404 Permit from the Corps of Engineers, a **Chapter 91** license is required from the MA 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 **§ 401 Water Quality Certification** is required from the DEP. Additionally, any project that is federally authorized or funded must undergo a **Federal Consistency Review** by CZM 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 Archeological Survey Permit** may be necessary.

10.2 Massachusetts Ocean Management Plan

Balancing the array of marine activities in the coastal waters of Massachusetts with the need to protect and enhance the marine environment requires an effective management framework. To that end, the Oceans Act of 2008 directed the Secretary of Energy and Environmental Affairs to develop a comprehensive plan to manage development in state waters, balancing natural resource preservation with traditional and new uses, including renewable energy. In consultation with a 17-member Ocean Advisory Commission

(OAC)²⁷⁴ and an Ocean Science Advisory Council (SAC), the Executive Office of Energy and Environmental Affairs (EEA) is developing this ocean plan in the context of an extensive public participation process. A three-phased approach is being used to develop the plan:

Phase 1: Information Gathering—Through a series of statewide workshops and presentations, OAC, SAC and public participants reviewed the information gathered and quality of the data.

Phase 2: Draft Plan Development—Next, specialists performed spatial analysis and refined options for the management approach, while public participation and expert input continued. This phase concluded with the release of the draft Ocean Management Plan in June 2009.

Phase 3: Formal Public Review of Draft Plan—Copies of the draft plan were made available on June 30, 2009. A 60-day public comment period followed, during which members of the public submitted comments on the draft plan. Revisions are now underway, and the final plan is scheduled to be adopted by the State Legislature by December 31, 2009.

Upon final adoption, the Ocean Management Plan will be incorporated into the existing CZM plan and enforced through the State's regulatory and permitting processes. In order to provide for renewable energy in a manner that carefully considers potential impacts, the draft Ocean Plan proposes to establish three

²⁷⁴ The commission includes State Legislators, agency heads, representatives from a commercial fishing organization and an environmental organization, an expert in the development of offshore renewable energy, and representatives from the coastal Regional Planning Agencies.

different types of areas for specific uses. In the *Multi-use Area*, uses, activities and facilities allowed by the Ocean Sanctuaries Act (OSA) would be managed in a way that directs development away from concentrations of existing water-dependent uses and high value resources. This area is expected to be open to all uses, activities and facilities allowed under the OSA- except commercial offshore wind energy facilities.²⁷⁵ In the proposed *Prohibited Areas*, most uses, activities and facilities that are expressly prohibited by the OSA would not be allowed. Finally, the proposed *Renewable Energy Areas* would be specifically designated for renewable energy activities, including offshore wind, wave and tidal facilities.

The regulatory framework pertaining to offshore activities is experiencing relatively rapid change, as evidenced by the development of this Ocean Management Plan. While the actual authorizations required for hydrokinetic projects are not expected to change, the processes through which these authorizations are obtained may vary as new and revised regulations are implemented. Project proponents are strongly encouraged to schedule a pre-application meeting with regulators prior to initiating the permitting process. The MEPA Unit, the DEP, and the CZM Offices can all assist in arranging pre-application meetings.

²⁷⁵ Wind energy facilities composed of eleven or more turbines are considered commercial-scale. Activities such as transmission cables and pipelines, pilot/community-scale wind energy facilities and wave and tidal energy facilities are permitted in the Multi-Use Area.

10.3 List of Massachusetts Acronyms

Abbreviation	Term
ACEC	Areas of Critical Environmental Concern
CZM	Coastal Zone Management
DCR	Dept. of Conservation and Recreation
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ENF	Environmental Notification Form
EPA	U.S Environmental Protection Agency
MassDEP	Mass. Department of Environmental Protection
MEPA	Mass. Environmental Policy Act
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NPDES	National Pollution Discharge Elimination System
PGP	Mass. Programmatic General Permit
WPA	Wetlands Protection Act

10.4 Summary Table of Massachusetts Authorizations

Authorization/Review	Primary Legal Authority	Lead Agency	Anticipated Process Time
Energy Facility Siting Board Approval	980 CMR; G.L. c. 164, § 69H	Energy Facility Siting Board	Varies; generally, at least one year
Massachusetts Environmental Policy Act Certificate	Massachusetts Environmental Policy Act	Mass. Environmental Policy Act Unit	Varies; generally, at least one year
Massachusetts Endangered Species Act Review	Massachusetts Endangered Species Act	Natural Heritage & Endangered Species Program	One month from receipt of complete Request
Order of Conditions	Massachusetts Wetlands Protection Act	Local Conservation Commission & DEP- Wetlands & Waterways Program	One month from receipt of complete application
§ 401 Water Quality Certification	MA Clean Water Act; Surface Water Quality Standards; CWA § 401	DEP- Wetlands & Waterways Program	Up to one year
State Fisheries Recommendations	M.G.L. c. 21, § 5, and c. 130, §§ 1-104: Marine Fisheries; 322 CMR 2.00 <i>et seq.</i> : Marine Fisheries Regulations.	DEP & Division of Marine Fisheries	Up to 12 months ²⁷⁶
Chapter 91 Waterways License or Permit	M.G.L. c. 91 Public Waterfront Act; 310 CMR 9.00 Waterway Regulations	DEP- Wetlands & Waterways Program	At least 3 to 6 months from receipt of complete application
CZMA Federal Consistency Determination	CZMA Section 307; Massachusetts Coastal Zone Management Act	MA Office of Coastal Zone Management	Up to 6 months
Underwater Archeological Survey Permit	M.G.L. c. 6, §§ 179 & 180: 312 CMR 2.00:	Board of Underwater Archeological Resources	One week
Historic Properties Review	Historic District Act	MA	At least two months

²⁷⁶ This review occurs within § 401 WQC review process; recommendations are issued concurrently with the § 401 WQC.

10.5 Energy Facility Siting Board Approval

The Energy Facility Siting Board (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 lines²⁷⁷. The Siting Board's jurisdiction includes new electric transmission lines of 69 kilovolts or greater 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.²⁷⁸ 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.²⁷⁹

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 the Department of Environmental Protection, 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 time 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

²⁷⁷ 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 state Department of Environmental Protection or at the local level.

²⁷⁸ Except reconductoring or rebuilding of transmission lines at the same voltage. (M.G.L. c. 164, §69 G)

²⁷⁹ http://www.mass.gov/Eoeea/docs/dpu/siting/shan_dbook.pdf

record upon which to base its decision.²⁸⁰ 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.

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, § 69H

10.6 Massachusetts Environmental Policy Act Certificate

The Massachusetts Environmental Policy Act (MEPA) requires that state agencies study the environmental consequences of their actions, including permitting and financial assistance.²⁸¹ 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 Environmental Affairs, administers this program. The MEPA Unit has an extremely informative 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.²⁸²

MEPA reviews occur before state permits are issued to ensure 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

²⁸⁰ The Siting Board's decision must be based solely on information that has been properly admitted into the evidentiary record during the proceeding.

²⁸¹ State agency actions are defined as granting state permits or licenses, providing state financial assistance, or transferring state land.

²⁸² <http://www.mass.gov/envir/mepa/index.htm>

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*.²⁸³ 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.²⁸⁴

The total review period for an ENF is 30 days from the publication date of the *Monitor*. The first 20 days of this period is 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.²⁸⁵ Given the newness of hydrokinetic technologies and the inherent uncertainties of the ocean environment, hydrokinetic facilities will likely require an EIR.

The EIR should be filed as soon as reasonably possible. The project proponent will first prepare 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 will then prepare and submit a final EIR.²⁸⁶ 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 Environmental Affairs,

²⁸³<http://www.mass.gov/envir/mepa/secondlevelpages/currentissue.htm>

²⁸⁴ For projects that also require NEPA review, every effort will be made to coordinate agency review and documentation.

²⁸⁵ 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.

²⁸⁶ 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.

administers this review.
<http://www.mass.gov/envir/mepa>.

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, §§ 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 Endangered Species Act. 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, Wildlife and Environmental Law Enforcement (DFWELE). The NHESP coordinates MESA with the federal Endangered Species Act.

The 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.²⁸⁷ Alterations of significant endangered or threatened species habitat require a permit from the NHESP.

Review Process: If any portion of a project is proposed in estimated rare or endangered species habitat, a Rare Species Information Request (RSIR) Form must be submitted to NHESP.²⁸⁸ The 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.

²⁸⁷ To prevent unauthorized takings, resident species are not identified on the maps.

²⁸⁸ Request Forms may be downloaded online:
www.mass.gov/dfwele/dfw/nhesp/reqform.pdf

10.8 Order of Conditions

Projects proposed in wetlands resource areas or in the buffer zone²⁸⁹ 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. 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.²⁹⁰

Lead Agency: The WPA is administered by the local Conservation Commissions and the Department of Environmental Protection's (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 by-laws applicable to the project.

Review Process: To apply for an OOC, project proponents must submit a Notice of Intent (NOI)²⁹¹ 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.²⁹²

A copy of the NOI is also submitted to the regional office of the DEP, 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. Additionally, legal notice of the NOI is published in a local newspaper. The Conservation Commission holds a public hearing on the proposal and will issue 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. A butters, a group of 10 citizens, or the applicant have 10 days to appeal an approval to DEP. If the project is appealed, DEP will issue 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 will issue 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

²⁸⁹ A 100-foot buffer zone around most wetland resources areas is subject to jurisdiction under the WPA.

²⁹⁰ In densely developed areas, the protected river corridor is 25 ft. wide.

²⁹¹ Application forms are available online <http://www.mass.gov/dep/water/approvals/wwforms.htm#wetlands>

²⁹² 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.

Wildlife, the applicant must also send the NOI to the NHESP. In some cases, projects which are subject to a MESA review may qualify for streamlined MESA/Wetlands Protection Act reviews. However, if MESA supplemental information is not included with the NOI, the NHESP will require 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, § 40: Massachusetts Wetlands Protection Act; 310 CMR 10.00: Wetlands Regulations

10.9 Clean Water Act § 401 Water Quality Certification

The purpose of § 401 of the Clean Water Act (CWA) is for states to use its 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. A § 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: The Wetlands and Waterways Program in the DEP administers the § 401 WQC Program.²⁹³ The § 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 will vary depending on project-specific criteria, such as technology type, size and location.²⁹⁴ Also, applications must be accompanied by the appropriate fee (\$250 for Major Project Certification; \$50 for Minor Project Certification). When an application for certification is received and deemed administratively complete, the official § 401 technical review will begin. 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 Order of Conditions without the need for an individual 410 WQC application.

A § 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, 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.

²⁹³ See regulations at 314 CMR 9.00

²⁹⁴ Application forms are available online <http://www.mass.gov/dep/water/approvals/wwforms.htm#wqcert>.

Certification - Certification is issued if the proposed project complies with water quality standards *and* with the Ocean Management Plan (if applicable, once it is finalized). 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 Section 1341(d)), such conditions must be included in the federal license or permit.

Denial – The 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: States are provided up to one year to issue a certification decision.²⁹⁵

Legal Authority: 33 U.S.C. 1341 *et seq.*, § 401: Federal Water Pollution Control Act, M.G.L. c. 21, §§26-53: Massachusetts Clean Water Act; 314 CMR 4.00: Surface Water Quality Standards, 314 CMR 9.00: § 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: The Division of Marine Fisheries (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 the National Marine Fisheries Service.

Review Process: The DEP will contact DMF as part of its § 401 Water Quality Certification review. DMF will recommend time-of-year restrictions to protect spawning fish or will recommend mitigation for damage to shellfish beds or areas of Submerged Aquatic Vegetation (SAV). DMF recommendations are incorporated into the § 401 Water Quality Certification as conditions of the federal license or permit. No additional forms or fees are required for DMF review of § 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, § 5, and c. 130, §§ 1-104: Marine Fisheries; 322 CMR 2.00 *et seq.*: Marine Fisheries Regulations.

²⁹⁵ The one-year time frame commences upon the agency’s determination that a file is administratively complete.

10.11 Chapter 91 License

Chapter 91 of the M.G.L. 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 the Chapter 91 Waterways Program.

In October 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)²⁹⁶. 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 (once finalized) 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.²⁹⁷

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 (DPAs) for maritime industrial use, and (7) comply with other applicable environmental programs (such as those listed in this handbook and the Ocean Management Plan, once finalized). 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

²⁹⁶

www.mass.gov/dep/water/laws/regulati.htm#wways

²⁹⁷ Application instructions and forms are available at

www.mass.gov/dep/water/approvals/wwforms.htm

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

10.12 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 activities²⁹⁸ be consistent with state coastal management policies (e.g., land use planning statutes, marine spatial planning, and water quality standards).²⁹⁹ A *consistency determination* is the process used to implement this requirement for federal permits and licenses. Hydrokinetic projects will likely require a §404 Permit, a §10 Permit, and/or a FERC license, all of which require a consistency review.

²⁹⁸ 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.

²⁹⁹ The federal consistency review requirements and procedures are detailed in 15 CFR § 930.

Any project proposal that is that 1) is in or may affect the State's coastal zone,³⁰⁰ 2) is above certain thresholds (generally, the 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: The Massachusetts Office of Coastal Zone Management (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 will place a public notice in the *Environmental Monitor* and will accept 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

³⁰⁰ 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.

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 U.S. Secretary of Commerce.

Process Time: Up to six months

Legal Authority: 16 U.S.C. 1451 *et seq.*: Coastal Zone Management Act of 1972, as amended, 15 CFR 930; M.G.L. c. 21A, §§ 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 Archeological Survey Permit

The Massachusetts Board of Underwater Archeological Resources is responsible for managing underwater historical and archeological 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 Archeological Resources to find out if the proposed activity will disturb underwater archeological resources. Anyone wishing to excavate an underwater archeological site must

obtain a permit from the Board. In order to protect the resources from unauthorized excavation, the exact location of archeological sites is not made public.

Review Process: Project proponents should contact the Board to determine if there are underwater archeological resources at the proposed project site. The Board may require the proponent to conduct an underwater archaeological assessment or investigation. An assessment of investigation will require 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 archeological 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, §§ 179 & 180: Board of Underwater Archeological Resources; MGL Chapter 91, § 63; 312 CMR 2.00: Massachusetts Underwater Archeological 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 §106 of the 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 the National Historic Preservation Act (NHPA) in Massachusetts. The MHC inventories historic properties and places in Massachusetts, promotes historic preservation, and implements state and federal preservation laws. The 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 by-laws.

Review Process: Applicants must file a Project Notification Form³⁰¹ with the 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 U.S. Geological Survey topographic map.³⁰² MHC will review the applicant's information and issue a determination, which can be used for both Massachusetts Environmental Policy Act review requirements and the Section 106 consultation with federal resource agencies. Should MHC find that there are protected historic or archeological

resources on the site, they will recommend appropriate avoidance and mitigation measures.

Process Time: At least 60 days

Legal Authority: M.G.L. c. 9, §§ 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.

³⁰¹<http://www.mass.gov/sec/mhc/mhcform/formidx.htm>

³⁰² <http://www.topozone.com>

10.15 Massachusetts Roadmaps

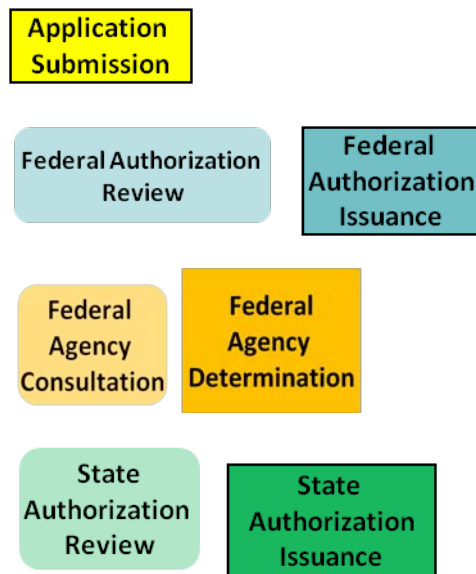
The following roadmaps are process schematics which show the approximate timing and sequence of the principle licensing, permitting and environmental review processes involved in siting hydrokinetic projects in the Commonwealth of Massachusetts. Massachusetts' state processes are overlaid with the federal processes in these roadmaps to show the relation of timing and sequence between of the state and federal authorizations. These roadmaps represent three scales of project development:

10-A Non-Grid Connected, Pilot Project: Small-scale hydrokinetic projects that are not connected to the electric grid do not require a license FERC, as no electricity is being transmitted. Projects of this scale are generally used for the purposes of testing and collecting data on device performance in the marine environment. This roadmap shows all the principle federal and state authorization processes *except* the FERC licensing process. In this situation, the COE would be the lead federal agency for the project NEPA review.

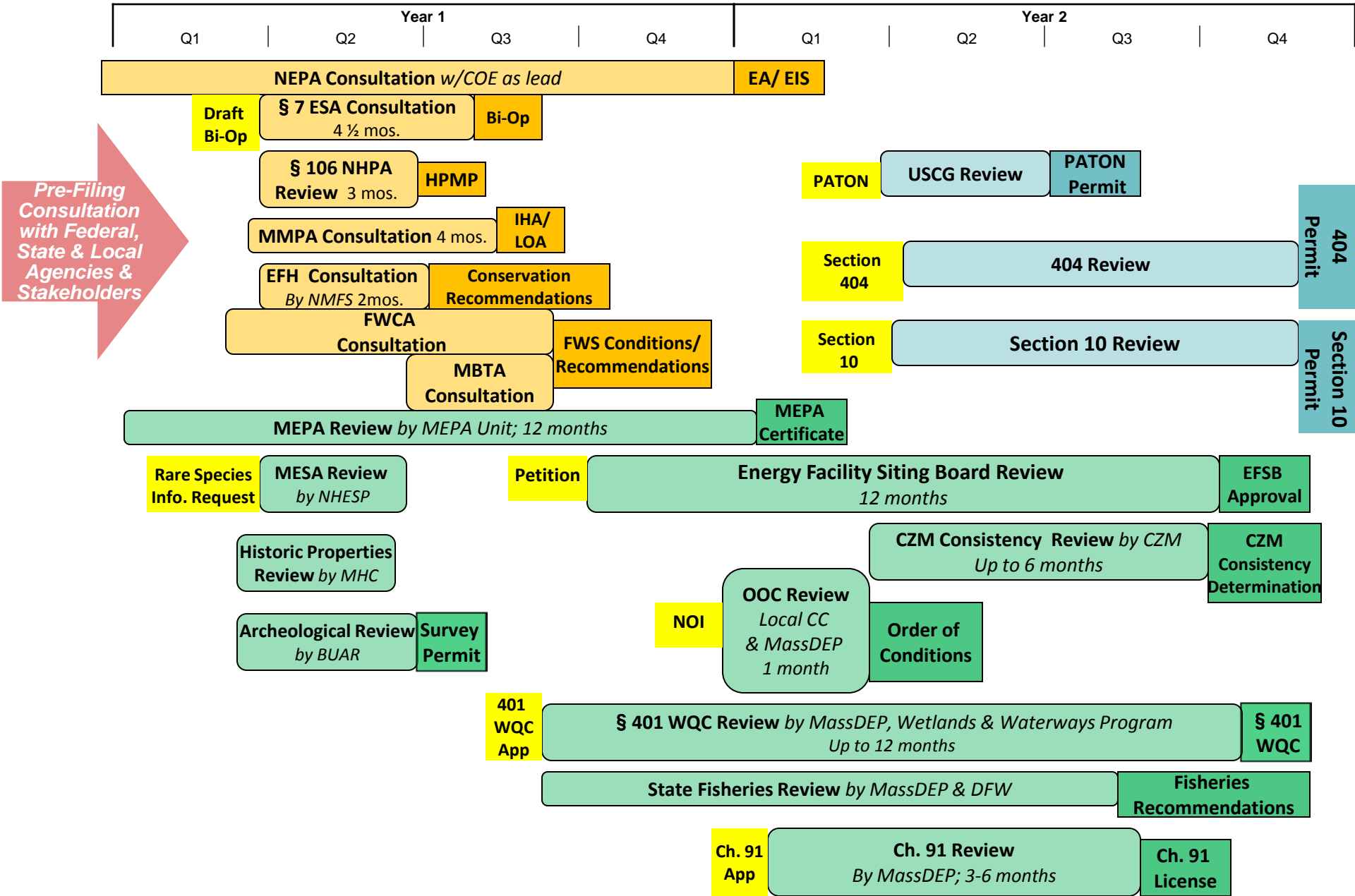
10-B Grid Connected, Pilot Project: Small-scale hydrokinetic projects that are connected to the electric grid may also be used to test and collect data on device performance in the marine environment. Since the project would be transmitting electricity, a FERC license is required. However, small-scale projects may be licensed under the FERC Pilot Process. This roadmap shows all the principle federal and state authorization processes, including the FERC Pilot Process. In this situation, FERC would be the lead federal agency for the project NEPA review.

10-C Grid Connected, Commercial Project: Commercial-scale hydrokinetic projects produce and transmit large amounts of electricity. This roadmap shows all the principle federal and state authorization processes, including the FERC Traditional License Process with Settlement Agreements. In this situation, FERC would be the lead federal agency for the project NEPA review.

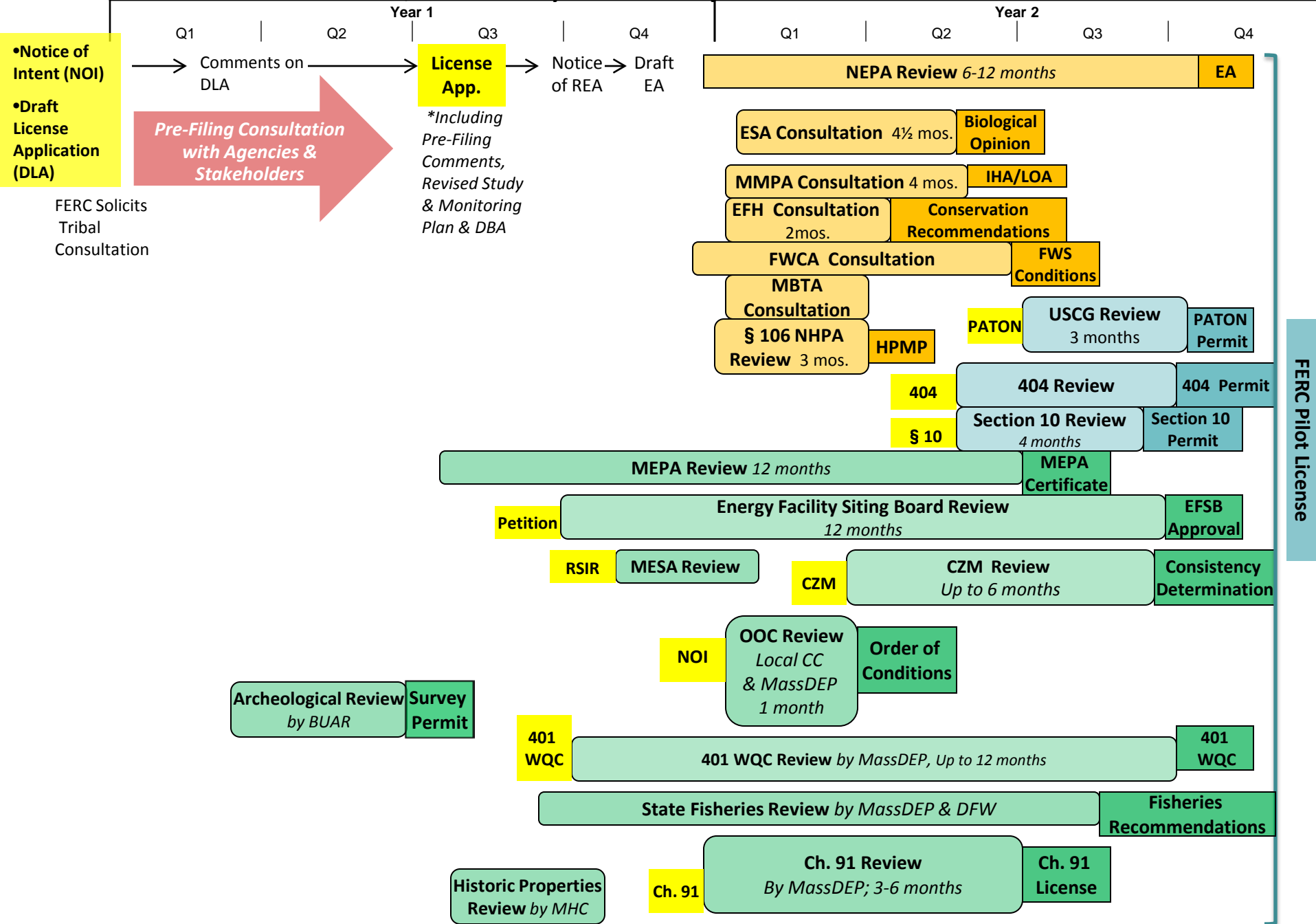
The types of authorizations are color coded in the roadmaps as follows:



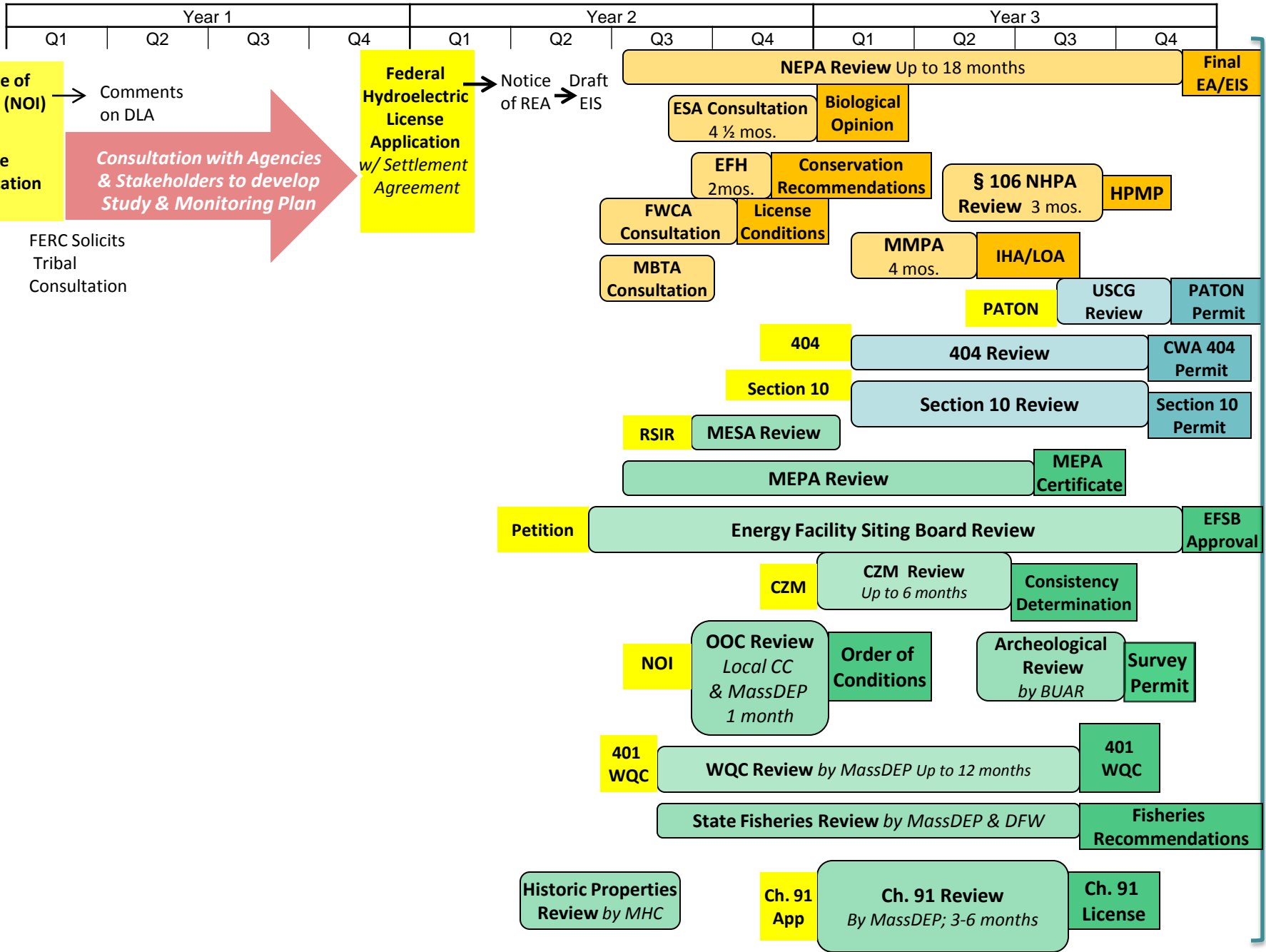
Non-Grid Connected, Pilot Project in Massachusetts State Waters



Grid-Connected, Pilot-Scale Hydrokinetic Project in Massachusetts State Waters



Commercial Hydrokinetic Project in Massachusetts State Waters



10.16 Massachusetts Agency Contact Information

Agency	Web Address	Address	City	State	Zip	Phone
Massachusetts Energy Facilities Siting Board	www.state.ma.us/dpu/siting_board.htm	One South Station	Boston	MA	02110	617-305-3525
Executive Office of Environmental Affairs	http://www.mass.gov/?pageID=eoeeahomepage&L=1&sid=Eoeea&Lo=Home	100 Cambridge St., Suite 900	Boston	MA	02114	617-626-1000
Executive Office of Environmental Affairs	http://www.mass.gov/?pageID=eoeeahomepage&L=1&sid=Eoeea&Lo=Home	100 Cambridge St., Suite 900	Boston	MA	02114	617-626-1000
MA Department Conservation and Recreation	http://www.mass.gov/dcr/	251 Causeway Street	Boston	MA	02114	617-626-1250
MA Department of Environmental Protection	www.mass.gov/dep	1 Winter St.	Boston	MA	02114	617-292-5500
MA Dept. of Coastal Zone Management	www.mass.gov/czm	251 Causeway Street, Suite 800	Boston	MA	02114	617-626-1200
MA Division of Marine Fisheries	www.mass.gov/dfwele/dmf/	251 Causeway Street, Suite 400	Boston	MA	02114	617-626-1520
MA Div. Fish and Wildlife Natural Heritage Endangered Species Program	http://www.mass.gov/dfwele/dfw/nhosp/nhosp.htm	Route 135	Westborough	MA	01581	508-389-6380
U.S Army Corps of Eng.	www.nae.usace.army.mil/	696 Virginia Rd.	Concord	MA	01742	978-318-8059
U.S. Dept. of Commerce NOAA	http://www.nero.noaa.gov/nero/	55 Great Republic Dr.	Gloucester	MA	01930	978-281-9300
U.S. Coast Guard Marine Safety Office	http://www.uscg.mil/	20 Risho Avenue	East Providence	RI	02914	401-435-2300
U.S. Coast Guard	http://www.uscg.mil/	20 Risho Avenue	East Providence	RI	02914	401-435-2300
U.S. DOE Northeast Regional Office	http://www.eere.energy.gov/regions/northeast	JFK Federal Building, Ste. 675	Boston	MA	02203	617-565-9734

11 Rhode Island

11.1 Introduction to Rhode Island Agencies & 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 and the Rhode Island Coastal Resource Management Council.

The mission of the Rhode Island Department of Environmental Management (DEM) is to protect and manage Rhode Island's valuable environment and resources. DEM partners with Federal agencies such as the Fish and Wildlife (FWS), the Environmental Protection Agency (EPA), the Army Corps of Engineers (COE) and the National Oceanic and Atmospheric Administration (NOAA), as well as many non-profit organizations, in protecting environmental quality and public health.

The Rhode Island Coastal Resource Management Council (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.³⁰³ The CRMC's role is explained in detail in the "Overview of the Coastal Resources Management Council" section.

RIDEM and CRMC have permitting authorities for specific activities, and offshore hydrokinetic projects will likely require permits from both these agencies. Rhode Island has streamlined the permitting process so that if a project requires authorizations from both RIDEM and CRMC, or an authorization from a federal

agency, applicants are urged to apply to both the CRMC and RIDEM 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 RIDEM jurisdiction would be applied for under the WQC application process. Further, projects that involve marine dredging, trenching and backfilling would also require a Dredge Permit, which is issued by RIDEM. If the project consists strictly of dredging, the Water Quality Certification review and decision to approve³⁰⁴ would be incorporated into the Dredge Permit. As well as involvement by the RIDEM and the 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 the Department of Environmental Management or the CRMC.

In addition to the state agencies responsible for resource management, local governments where transmission cables and/or land based facilities will be located will also have pertinent permitting and other regulatory requirements. For example, developers will 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 state authorizations, it is important for all stakeholders to be aware that local permitting requirements will likely be needed for siting offshore hydrokinetic projects.

³⁰³ Rhode Island's coastal zone includes the area 200 ft. from a coastal feature, out to 3nm.

³⁰⁴ WQC also require compliance with the Water Quality Regulations.

11.2 Coastal Resources Management Council & the Ocean SAMP

The CRMC is responsible for the overall administration and operation of the Rhode Island Coastal Resources Management Program (RICRMP). The CRMC provides assistance to applicants, coastal districts, and state agencies in carrying out their duties and responsibilities under the RICRMP. 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; therefore, the coastal consistency review process serves as the review process for most other permits needed from State resource agencies. This system, called "project consistency review," is based on the RICRMP.

The 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, the Council has developed and adopted six of these plans, and is currently developing an Ocean SAMP that will include a provision for renewable energy zones.³⁰⁵ 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 RI Ocean SAMP, which is expected to be complete by July 2010, will define 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.).

In conjunction with mapping existing uses and critical zones, a screening of sites that have suitable characteristics for renewable energy is being produced. Additionally, a conflict analysis will be 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 are being shared with the public for review and comment. In addition to the Ocean SAMP, the CRMC is developing regulatory standards for guiding development and protecting the state's resources (as part of the RI coastal program). Ultimately, this process will provide preselected sites for offshore renewable energy development that are environmentally and technically sound and, most importantly, 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.³⁰⁶

³⁰⁵ See <http://www.crmc.ri.gov/samps.html>.

³⁰⁶ 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 through which these authorizations are obtained may change.

11.3 List of Rhode Island Acronyms

CAP Coastal Alteration Permit
CRMC Coastal Resource Management Council
CWA Clean Water Act
CZMA Coastal Zone Management Act
EFSB Energy Facility Siting Board
HPC Historic Preservation Council
OWR Office of Water Management
PUC Public Utility Commission

RICMP Rhode Island Coastal Management Program
RIDEM Rhode Island Dept. of Environmental Management
ROW Right of Way
STUP Special Temporary Use Permit
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 Section 307, RI 46-23-1 (b) (1) (RICRMP)	CRMC	At least six 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)	RIDEM, Office of Water Resources	Up to one 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 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 activities³⁰⁷ be consistent with state coastal management policies (e.g., land use planning statutes, marine spatial planning, and water quality standards).³⁰⁸ A *consistency determination* is the process used to implement this requirement for federal permits and licenses. Hydrokinetic projects will likely require a §404 Permit, a §10 Permit, and/or a FERC license, all of which require a consistency review.

Lead Agency: In Rhode Island, the CRMC is responsible for federal consistency determinations. CZMA consistency certifications are reviewed in accordance with the Rhode Island Coastal Resources Management Program (CRMP). Project proponents should refer to the matrices and §300 of the CRMP manual³⁰⁹ (the “Red Book”) as well as any applicable SAMP³¹⁰ to determine whether a proposed activity is allowable, the level of review to which it is subject, and applicable policies, standards and information requirements.

³⁰⁷ 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.

³⁰⁸ The federal consistency review requirements and procedures are detailed in 15 CFR § 930.

³⁰⁹ The Redbook is available at <http://www.crmc.ri.gov/regulations/RICRMP.pdf>

³¹⁰ The RI Ocean SAM Plan, once completed, will address and assist in guiding this determination.

Review Process: The initial step in a federal consistency review is for the applicant to inform the Coastal Resources Management Council of the proposed activity. Oftentimes, the Council will arrange 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, the Council will work with the applicant and relevant federal agencies to facilitate the review process. Also, the 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 the Council.³¹¹ 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 RICRMP.

³¹¹ Applicants are encouraged to consult with the Council when preparing the information and data package to ensure consistency and avoid unnecessary delay.

- 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 RICRMP.

The Council will advise the applicant of the receipt of the application and complete information package, and this date of receipt officially begins the Council's review period. The Council will review the applicant's consistency certification for adequacy and will request from the applicant in writing any required additional information. A request for additional information will not stop the six month review period.

During its review, the CRMC will coordinate with the State Historic Preservation Commission. The Council will require modification of, or will prohibit 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 of Historic Places. The Council will solicit the recommendations of the Historical Preservation Commission 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 the Historical Preservation Commission as the result of their predictive model, the Council will solicit the recommendations of the Commission regarding possible adverse impacts on these properties.

The Council 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

The Council will notify 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.³¹² If the Council determines that issuance of a federal permit or license would be inconsistent with the RICRMP, it will notify the federal agency, the applicant and the Secretary of Commerce and will explain the nature of the inconsistency. Similarly, if the Council finds that the applicant has submitted insufficient information to make a consistency determination, it will identify the lack of information and notify the relevant parties. In the case of an objection, the Council will recommend alternative actions or modifications to the proposed action that would render it consistent with the RICRMP.

If the 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 the CRMC's objection.³¹³ However, the CRMC will make 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

³¹² CRMC concurrence is conclusively presumed in the absence of objection within 6 months following the commencement of Council review (i.e., receipt of a completed application).

³¹³ Information pertaining to Secretarial appeals is located in Section 400 and 15 CFR part 930, subpart H.

RICRMP. 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 U.S.C. 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 will be conducted in a manner consistent with the CRMP and other state and federal requirements. There are several types of Assents issued by the Council, 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 Council Assent:

- Within, above or beneath the tidal waters³¹⁴, 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 Coastal Resources Management Program.

Hydrokinetic projects will likely fall under a Category B Assent, which deals with energy related structures constructed or operated within the Council’s jurisdiction. A Category B

³¹⁴ 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.

Assent provides for the highest level of Council review.³¹⁵ It is important to note that because offshore hydrokinetic projects will require federal authorization (i.e., FERC license, COE Permits), they will need to obtain both an Assent and a federal consistency certification from the CRMC. In this situation, the informational requirements for federal consistency will be the same as, and will be satisfied by, the requirements for the 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, the CRMC determines that a project is consistent with the goals and policies of the CRMP, then the Council will issue an Assent.

Before applying for an Assent, applicants will first submit a Preliminary Determination (PD) to obtain initial regulatory guidance with respect to permitting the proposed project.³¹⁶ This request form helps applicants understand what information will be needed for a review, which State and federal permits will be required, and what specific regulatory criteria need to be addressed in the Category B Assent Application. CRMC staff will 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

³¹⁵ The RICMP manual lays out the Assent requirements and considerations in detail.

<http://www.crmc.ri.gov/regulations/RICRMP.pdf>

³¹⁶ PDR application forms are available at

<http://www.crmc.ri.gov/applications/forms/Prelimdet.pdf>

The PDR fee for commercial projects is \$1000; this fee may be applied against the filing fee of applications for Council Assent if the is submitted within one year of the issuance of the PDR report.

and technical performance. CRMC staff will then work with applicant to make sure the CRMP is satisfied, and the applicant will then submit a more thorough application to be considered for an Assent.

Applicants should contact the 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 application³¹⁷ 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 will 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 RIDEM;

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, the Council will issue 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 thirty-day comment period during which the Council receives comments concerning the application.

After this thirty-day period, the Council reviews the application, taking into consideration staff reports and recommendations from other State and local agencies. The Council may also inspect the site in person for further investigation and review. If any information in the application is insufficient, the Council may

³¹⁷ The application form is available on the CRMC website:
<http://www.crmc.ri.gov/applications/forms/Assentapp.pdf>

request additional information necessary to continue the review. Applicants have thirty 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 § 401 Water Quality Certification

The purpose of § 401 of the Clean Water Act (CWA) is for states to use its 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. A § 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: Pursuant to the CWA and corresponding state laws and regulations, the Rhode Island RIDEM, Office of Water Resources, is responsible for reviewing proposed projects to determine whether proposed projects will 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* the RIDEM 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 will 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 RIDEM.

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. Also, a Documentation of Estimated Construction Costs (ECC) must be submitted with the application.³¹⁸ The ECC for

³¹⁸ Unless the ECC is less than \$250,000, requirements are detailed in the WQC form

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, which is \$200 for projects with an ECC less than \$250,000 and \$400 for projects with an ECC greater than \$250,000.

Review Process: When an application for certification is received and deemed complete³¹⁹ the RIDEM will commence its review. To expedite application review, applicants should consult with the OWR in the early stages of project planning. When applying, applicants are urged to supply all the necessary information; the OWR may request additional information from the applicant at any time in the review process.

Upon determination that an application for water quality certification is complete, the Director will provide or have the applicant provide written notice of the proposed project to all abutters of any property upon which the activity will 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 will be conducted will be notified.³²⁰ The notice will provide for a 30-day

www.dem.ri.gov/programs/benviron/water/permits/wqc/pdfs/wqapp.pdf

³¹⁹ Upon receipt of an application, the RIDEM will review the application for completeness and will notify the applicant (in writing) whether the application is complete. If the RIDEM finds an application to be deficient, the application processing will be suspended and the applicant will need to correct the deficiencies.

³²⁰ For projects that the Director determines have the potential to result in impacts beyond the abutting property or that notification of abutters is

comment period; during this 30-day comment 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 will provide an opportunity for oral comments. The applicant, all persons receiving notice, and all persons submitting comments or requesting a hearing under will be notified, at least 14 days in advance, of the time and place of the hearing.

The Director will consider 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 will have little or no adverse environmental impact. All persons who submit comments, either orally at the hearing or in writing, will receive written notice of the final agency decision on the application.

Certification - Certification is issued if the proposed project will 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 Section 1341(d)), such conditions must be included in the federal license or permit.

impracticable, the notice will be published in a daily or weekly newspaper with circulation in the involved area. The Department may also require the applicant to publish notice, in a form approved in writing by the Department, in an additional daily or weekly newspaper with circulation that includes the community nearest the proposed location, or statewide.

Denial - The Director will deny certification if the project will 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 will advise the applicant of its right to appeal.³²¹

Process Time: States are provided up to one year to issue a certification decision.³²²

Legal Authority: *Clean Water Act § 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)³²³

³²¹ Appeal rights and procedures are described in Rule 21 of the Rhode Island Water Quality Standards regulations.

³²² The one-year time frame commences upon the agency's receipt of a complete application. State agencies are often unable to make a certification decision within the one year review period because the administrative record is inadequate to support issuance of a certification. In such a case the state agency will often give applicants the option of letting the state make a "reasonable assurance" determination. This action allows the applicant to withdraw and resubmit the application once it contains adequate information. If the applicant does not choose to withdraw and resubmit the application, then the state agency will have to deny the certification request. In either case, the one-year review period starts over. It is possible for this process to repeat several times before the state agency has an administrative record that will support water quality certification.

³²³ <http://www.dem.ri.gov/pubs/regs/regs/water/h2o/qoq.pdf>

11.8 Category B Assent

An “Assent” serves as certification that a proposed project will be conducted in a manner consistent with the CRMP and other state and federal requirements. There are several types of Assents issued by the Council, 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 Council Assent:

- *Within, above or beneath the tidal waters³²⁴, 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 Coastal Resources Management Program.*

Hydrokinetic projects will likely fall under a Category B Assent, which deals with energy related structures constructed or operated within the Council’s jurisdiction. A Category B Assent provides for the highest level of Council review.³²⁵ It is important to note that because offshore hydrokinetic projects will require federal authorization (i.e., FERC license, COE Permits), they will need to obtain both an Assent and a federal consistency certification from the CRMC. In this situation, the informational requirements for federal consistency will be the same as, and will be satisfied by, the requirements for the CRMC

³²⁴ 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.

³²⁵ The RICMP manual lays out the Assent requirements and considerations in detail. <http://www.crmc.ri.gov/regulations/RICRMP.pdf>

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, the CRMC determines that a project is consistent with the goals and policies of the CRMP, then the Council will issue an Assent.

Before applying for an Assent, applicants will first submit a Preliminary Determination (PD) to obtain initial regulatory guidance with respect to permitting the proposed project.³²⁶ This request form helps applicants understand what information will be needed for a review, which State and federal permits will be required, and what specific regulatory criteria need to be addressed in the Category B Assent Application. CRMC staff will 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 will then work with applicant to make sure the CRMP is satisfied, and the applicant will then submit a more thorough application to be considered for an Assent.

Applicants should contact the CRMC *before* initiating the application review process to assure that they have full knowledge of the process and requirements, including applicable fee schedules.

³²⁶ PDR application forms are available at <http://www.crmc.ri.gov/applications/forms/Prelimdet.pdf> The PDR fee for commercial projects is \$1000; this fee may be applied against the filing fee of applications for Council Assent if the is submitted within one year of the issuance of the PDR report.

Review Process: The Assent application³²⁷ 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 will need to prepare a fully- documented environmental assessment that 1) establishes the baseline condition of the protected resources and uses in and around at 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 RIDEM;*

- *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, the Council will issue 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 thirty-day comment period during which the Council receives comments concerning the application. After this thirty-day period, the Council reviews the application, taking into consideration staff reports and recommendations from other State and local agencies. The Council may also inspect the site in person for further investigation and review. If any information in the application is insufficient, the Council may request additional information necessary to continue the review. Applicants have thirty 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; 12 months or more

Legal Authority: RI 46-23-18.

³²⁷ Application forms available on the CRMC website:
<http://www.crmc.ri.gov/applications/forms/Assenta pp.pdf>

11.9 Energy Facility Siting Board License

In Rhode Island, a license is required to site, construct or alter a major energy facility in 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, or the Board) is comprised of the Director of the RIDEM, the chairman of the Public Utilities Commission, and the Associate Director of Administration for Planning. Pursuant to the Energy Facility Siting Act, the EFSB has broad jurisdiction over energy facilities.

During the licensing process, the EFSB still requires all of the local, state, and federal authorizations necessary for any development (i.e. CRMC Assent and relevant RIDEM, 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 Final Decision of the Board will specifically identify all licenses that have been granted pursuant to the Board License.

Filing Requirements- Project proponents should coordinate early with the EFSB to determine the licensing requirements for their particular project. All applications should be filed with the Coordinator of The Energy Facility Siting

Board.³²⁸ 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 will transmit 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.*
- *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*

³²⁸ http://www.ripuc.org/efsb/EFSB_Rules.pdf

transmission facilities, the description and analysis must include a review of current, independent scientific research pertaining to electromagnetic fields (EMF) 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 estimated construction costs, 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 thirty days of filing, the Coordinator, in consultation with the Board, will review 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 will send 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 will issue notice of a preliminary hearing. Notice of the hearing must be issued at least forty-five 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.³²⁹

³²⁹ After commencement, a hearing may be adjourned to a subsequent day upon oral notice to those present at the time of adjournment.

During the application review process, other hearings may be held for testimony and evidence to be given. Public must be issued at least ten (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, RIDEM, 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 the Board's designation of the agency; however, the Board may request the agency to render a decision within a lesser time. Additionally, the Board may request that RIDEM and CRMC give priority to licenses for energy facilities over which RIDEM or CRMC exercise licensing authority.³³⁰

Final Hearing- After the advisory opinions are submitted, the Board will convene 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 and RIDEM and CRMC. Within fifteen days after the advisory opinions are submitted, public notice of the final hearing will be published. Final hearings

³³⁰ 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.

must commence within forty five 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 Coordinator at least ten days before the hearing begins.³³¹ The Board 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 RIDEM and CRMC. Presentation and receipt of testimony and evidence will conclude within sixty days after the hearing commences.

Final Decision- The Board will issue its Final Decision within four months after the final hearings begin or within sixty 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*

³³¹ Except for good cause shown, the Board will not receive direct testimony, documents or other evidence that has not been pre-filed.

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.*

The Board's final decision will specifically address each of the advisory opinions received from designated agencies the Public Utilities commission and Statewide Planning. Additionally, the board may require any modification or alteration to the proposed facility and may place conditions on the grant of the Board License. For example, a Board 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.³³²

³³² http://www.ripuc.org/efsb/EFSB_Rules.pdf

11.10 Rhode Island Roadmaps

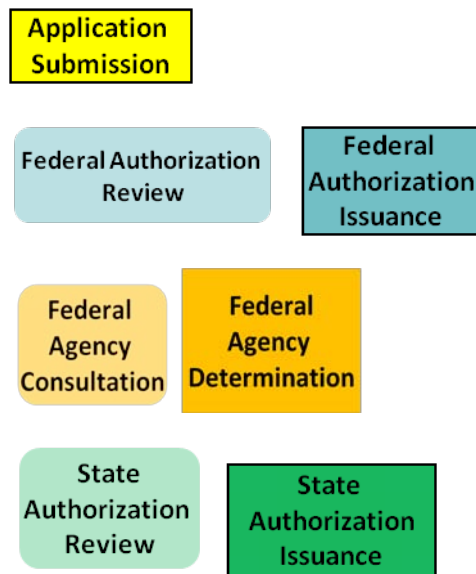
The following roadmaps are process schematics which show the approximate timing and sequence of the principle licensing, permitting and environmental review processes involved in siting hydrokinetic projects in the State of Rhode Island. Rhode Island's state processes are overlaid with the federal processes in these roadmaps to show the relation of timing and sequence between of the state and federal authorizations. These roadmaps represent three scales of project development:

11-A Non-Grid Connected, Pilot Project: Small-scale hydrokinetic projects that are not connected to the electric grid do not require a license FERC, as no electricity is being transmitted. Projects of this scale are generally used for the purposes of testing and collecting data on device performance in the marine environment. This roadmap shows all the principle federal and state authorization processes *except* the FERC licensing process. In this situation, the COE would be the lead federal agency for the project NEPA review.

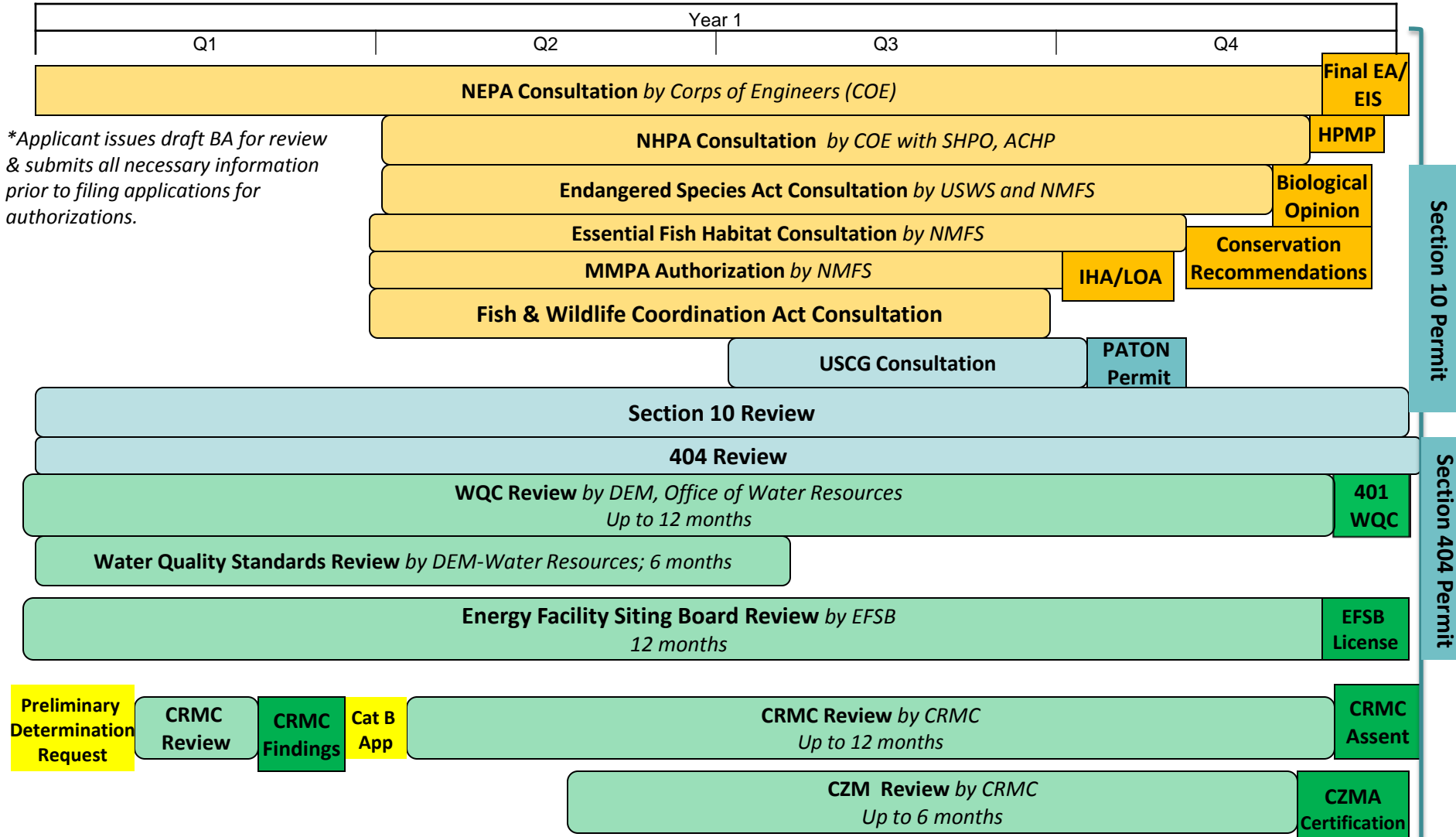
11-B Grid Connected, Pilot Project: Small-scale hydrokinetic projects that are connected to the electric grid may also be used to test and collect data on device performance in the marine environment. Since the project would be transmitting electricity, a FERC license is required. However, small-scale projects may be licensed under the FERC Pilot Process. This roadmap shows all the principle federal and state authorization processes, including the FERC Pilot Process. In this situation, FERC would be the lead federal agency for the project NEPA review.

11-C Grid Connected, Commercial Project: Commercial-scale hydrokinetic projects produce and transmit large amounts of electricity. This roadmap shows all the principle federal and state authorization processes, including the FERC Traditional License Process with Settlement Agreements. In this situation, FERC would be the lead federal agency for the project NEPA review.

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



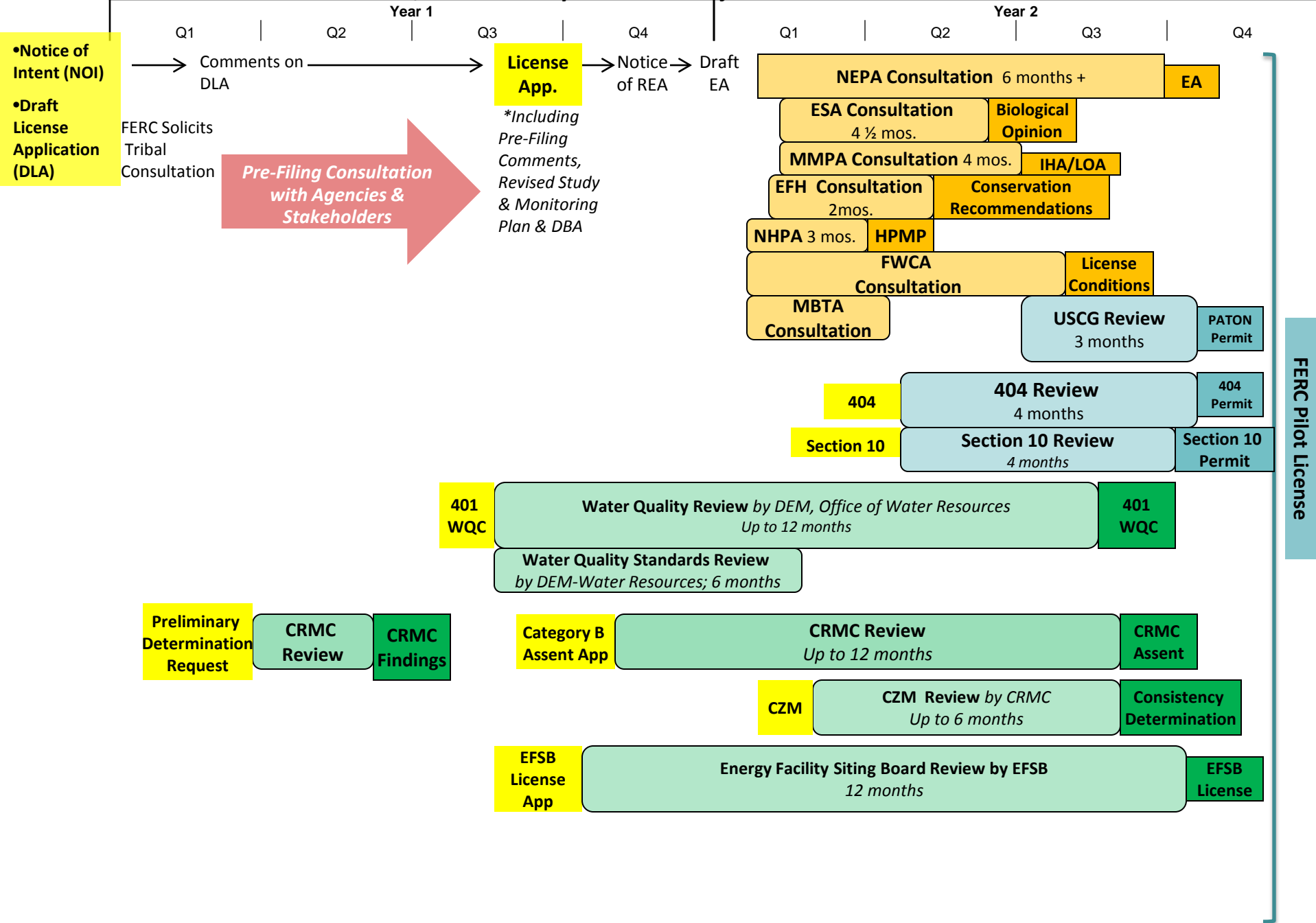
Non-Grid Connected, Hydrokinetic Pilot Project in Rhode Island State Waters



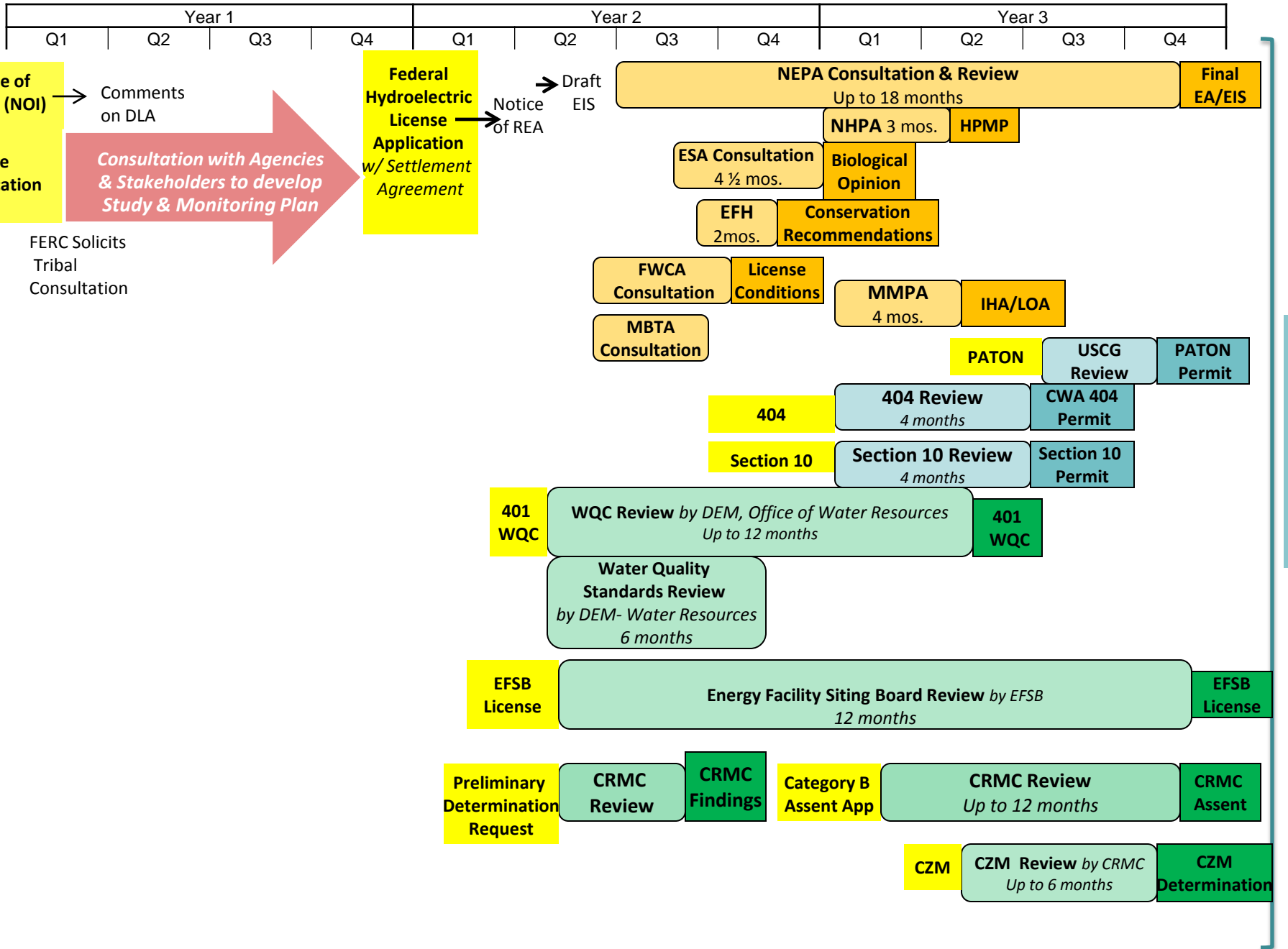
Section 10 Permit

Section 404 Permit

Grid-Connected, Pilot-Scale Hydrokinetic Project in Rhode Island State Waters



Commercial Hydrokinetic Project in Rhode Island State Waters



FERC License

11.11 Rhode Island Agency Contact Information

Agency	Web Address	Mailing Address	City	State	Zip	Phone
Coastal Resource Management Council	www.crmc.state.ri.us	Stedman Gov't Ctr., Suite 3, 4808 Tower Hill Rd.	Wakefield	RI	02879	401-783-3370
Energy Facility Siting Board	www.ripuc.org/efsb/index.html	89 Jefferson Blvd.	Warwick	RI	02888	401-941-4500
Historic Preservation Commission	www.preservation.ri.gov	150 Benefit St.	Providence	RI	02903	401-222-2968
Office of Water Resources	http://www.dem.ri.gov/programs/benviron/water/index.htm	235 Promenade St.	Providence	RI	02809-5767	401-222-6800
Public Utility Commission	www.ripuc.org	89 Jefferson Blvd.	Warwick	RI	02888	401-941-4500
Rhode Island Department of Environmental Management	www.dem.ri.gov	235 Promenade St.	Providence	RI	02809-5767	401-222-6800

12 Florida

Ocean current energy generation from the Gulf Stream is the primary hydrokinetic technology being investigated in Florida. Given the close proximity of the Gulf Stream to Florida's southeast coastline, initial ocean current projects are most likely to occur off the state's southeast coast. Therefore, this chapter's analysis of regulatory requirements focuses on ocean current energy devices sited off the Southeast coast of the state.

12.1 Florida's Hydrokinetic Resources: Ocean Currents

Currents in the open ocean are relatively constant and flow in one direction only, in contrast to tidal currents closer to shore. The Atlantic Ocean's Gulf Stream flows northward past the southern and eastern shores of Florida, funneling through the Florida Straits an amount of seawater greater than thirty times the total freshwater river flows of the world - over eight billion gallons per minute. Putting the energy of the Gulf Stream to work by using it to generate electricity offers the potential of replacing the need for new fossil-fuel or nuclear power plants in Florida. The Center for Ocean Energy Technology (COET) at Florida Atlantic University is working to foster the research, development, testing, and commercialization of ocean energy technologies that are cost-competitive with existing fossil-fuel- and nuclear-based power generation.³³³

³³³ The COET is a partnership among academia, industry and government laboratories combining expertise in ocean engineering and science, fabrication and testing. <http://coet.fau.edu/>

12.2 Overview of Florida Agencies & Authorizations

Ocean current projects in Florida will require a proprietary authorization (i.e., a lease or easement) for placement of hydrokinetic devices and transmission lines within state-owned submerged lands.³³⁴ These projects will 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,³³⁵ 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 the DEP in the district office that is responsible for the area where the project is proposed. Since ocean current projects will most likely be site off Florida's southeast coast, the DEP will have jurisdiction over these hydrokinetic facilities, and ERP applications for these projects will be

³³⁴ 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-mile nautical mile limit of the State's Territorial Sea.

³³⁵ Chapter 18-21, Florida Administrative Code (F.A.C.)

processed by the 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 the FWC might perform this latter service has not yet been explored. In the context of siting hydrokinetics, the FWC will be the lead agency for the state Endangered Species Review and will provide State Fisheries Recommendations.

12.3 List of Florida Acronyms

Abbreviation	Term
DEP	Department of Environmental Protection
ERP	Environmental Resource Permit
FWC	Fish & Wildlife Commission
FCMP	Florida Coastal Management Program
SPO	State Planning Office

12.4 Summary Table of Florida Acronyms

Authorization/Review	Primary Legal Authority	Lead Agency	Anticipated Process Time
Environmental Resource Permit	Rule 62-343.090(2)(i), FAC Section 120.60(1), F.S., and Section 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
§401 Water Quality Certification	Federal Clean Water Act; §401 Clean Water Act; part IV of chapter 373, F.S.	DEP	12 months
Endangered Species Review	Article IV, Section 9, of the Florida Constitution; Coastal Zone Management Act (16 U.S.C. 1451 <i>et seq</i> , 15 CFR 930); Florida Coastal Management Program; Title XXIX, Chapter 403, F.S.; Title XXVIII, Chapter 379, F.S.; Title 68W.	FWC	4 ½ months
State Fisheries Recommendations		FWC	Varies

12.5 Environmental Resource Permit & Sovereign Submerged Lands Lease

For activities located on state-owned submerged lands, a single application and review process is used for projects that need both a submerged lands easement or lease and an Environmental Resource Permit (ERP), and these authorizations are issued (or denied) concurrently.

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 will 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 will fall under the jurisdiction of the DEP, and the Southeast District Office in West Palm Beach office will coordinate the application review.³³⁶

Information Requirements: Five copies of the application package should be submitted, including the appropriate forms³³⁷, 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,

³³⁶ For further contact information, visit the Southeast District Office's website:

www.dep.state.fl.us/southeast/

³³⁷ The application and forms are online:

www.dep.state.fl.us/water/wetlands/erp/forms.htm

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,³³⁸ 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 will be reviewed for completeness and any additional information will be requested.³³⁹ Once deemed complete, the DEP will solicit final comments from the resource agencies (FWC, Department of State – Division of Historical Resources, etc.) and make a determination whether the proposed project is can be authorized and whether the mitigation offsets the projects impacts. For hydrokinetic projects, the 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.

³³⁸ Except for certain non-water dependent activities that involve incidental uses, which may be approved on a case-by-case basis for public projects.

³³⁹ The applicant has 90 days to submit the additional information. If an applicant needs more than 90 days, they may notify the DEP of the circumstances, and the application will be held in active status for one additional period of up to 90 days.

The application package submitted to DEP will also be used for the state’s CZMA Federal Consistency Certification and the 401 Water Quality Certification reviews, and it will be forwarded to the FWC and the Division of State Historical Resources. Additionally, a copy of the application package will be forwarded to the Army Corps of Engineers for the proposed project’s Section 404 and Section 10 Permit reviews.

Process Time: Under this joint process, both state authorizations will follow a single time line regarding the completeness of the application and issuance or denial of the authorization.³⁴⁰ Typically, the 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 the DEP has sufficient time to review and approve the proposed project; since the permitting of hydrokinetic facilities will likely be 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

³⁴⁰ However, failure to satisfy these time frames would not result in approval by default.

12.6 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 activities³⁴¹ be consistent with state coastal management policies (e.g., land use planning statutes, marine spatial planning, and water quality standards).³⁴² A *consistency determination* is the process used to implement this requirement for federal permits and licenses. Hydrokinetic projects will likely require a §404 Permit, a §10 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.³⁴³ 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.³⁴⁴ The Florida Coastal Management Program (FCMP) consists of a network of twenty-three Florida Statutes, which are administered by nine state agencies and five water management districts. This framework allows the state to make

³⁴¹ 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.

³⁴² The federal consistency review requirements and procedures are detailed in 15 CFR § 930.

³⁴³ 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.

³⁴⁴ In accordance with United States vs. Louisiana, et. al., 364 U.S. 502 (1960).

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 §404 and §10 Permits from the Corps will be conducted during the Environmental Resource Permit review process. For hydrokinetic projects, it is likely that the Environmental Resource Permit 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.³⁴⁵ 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.

³⁴⁵ A list of agencies in the network is online: www.dep.state.fl.us/cmp/partners/state_agencies.htm

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.³⁴⁶

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 will log the project into the database, distribute copies of the application and materials to the selected reviewers, and notify the applicant of the estimated review period.

The reviewing agencies generally have a 30-day initial response deadline, based upon the date

³⁴⁶ Contact information is available online: www.dep.state.fl.us/secretary/oip/state_clearinghouse/

the Clearinghouse received the project.³⁴⁷ 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.³⁴⁸

Issuance or Denial of Consistency: Once comments have been received from all necessary reviewers, a consistency determination will be 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 will receive a *State Clearance Letter*. This letter will explain the criteria used for the review, summarize comments from reviewers and, if relevant, provide determinations of compliance with the local comprehensive plan and consistency with the FCMP. If significant concerns were identified by reviewers, the applicant will be 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;

³⁴⁷ 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.

³⁴⁸ Generally, a 15-day comment extension may be provided to reviewers upon request.

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.³⁴⁹ However, if comments are received by all reviewing agencies prior to that time, the Clearinghouse will issue the clearance letter as soon as the file is complete. If the Clearinghouse will be unable to forward a clearance letter by the 60th day, the applicant will be 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 U.S.C. 1451 *et seq*, 15 CFR 930); Florida Coastal Management Program

³⁴⁹ 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.

12.7 Clean Water Act § 401 Water Quality Certification

The purpose of § 401 of the Clean Water Act (CWA) is for states to use its 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. A § 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: DEP is the lead agency for § 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 will also be used for the state's § 401 Water Quality Certification reviews. When an application is received and deemed complete, the official § 401 review will begin.

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.

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 will be 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: States are provided up to one year to issue a certification decision.³⁵⁰ Once the 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: §401 Clean Water Act; part IV of chapter 373, F.S.

12.8 Endangered Species Review

The mission of the FWC is to ensure healthy populations of all native species and their habitats on a statewide basis. To fulfill this mission, the 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

³⁵⁰ The one-year time frame commences upon the agency's receipt of a complete application. State agencies are often unable to make a certification decision within the one year review period because the administrative record is inadequate to support issuance of a certification. In such a case the state agency will often give applicants the option of letting the state make a "reasonable assurance" determination. This action allows the applicant to withdraw and resubmit the application once it contains adequate information. If the applicant does not choose to withdraw and resubmit the application, then the state agency will have to deny the certification request. In either case, the one-year review period starts over. It is possible for this process to repeat several times before the state agency has an administrative record that will support water quality certification.

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: The 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, the FWC will likely participate in the review of the project to identify and address potential impacts to wetland-dependent and terrestrial 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 will typically coincide with the federal ESA review for a proposed project, which takes at least 4 ½ 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 aren't submitted until the application has been deemed complete.

Legal Authority: Coastal Zone Management Act (16 U.S.C. 1451 *et seq*, 15 CFR 930); Florida Coastal Management Program; Title XXIX, Chapter 403, *F.S.*; Title XXVIII, Chapter 379, *F.S.*; Title 68W.

12.9 State Fisheries Recommendations

The 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 the FWC is the review of proposed development projects that may affect fisheries resources.

Review Process: When a project proponent submits an ERP application, the DEP will contact the FWC as part of its Federal Consistency and 401 Water Quality Certification reviews. The FWC will review the proposed project and provide CZMA determination of consistency/inconsistency, and may provide permit conditions that are to be incorporated into the ERP.

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 U.S.C. 1451 *et seq*, 15 CFR 930); Florida Coastal Management Program (which includes Title XXVIII, Chapter 379, *F.S.* and Title 68, Florida Administrative Code).

12.10 Other Relevant Authorities in Florida

In addition to the primary authorizations identified above, siting hydrokinetic projects in Florida will involve various other relevant authorities; the list below includes authorities which may be involved in the siting process in some capacity.

- On-shore 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 archeological resources that are beneath coastal waters, the Florida Division of Historical Resources will perform a §106 National Historic Preservation Act Review during the

NEPA review process for the proposed project.

- Pursuant to the Power Plant Siting Act (ss. 403.501 - 518, F.S.) and the DEP's Siting Coordination Office oversees state and local agencies' reviews of steam and solar electrical generating facilities power plants 75 MW and greater; therefore, 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 will require a FERC license, which authorizes the facility and its transmission line(s). As such, hydrokinetic projects will not need to obtain the state Transmission Line Certification.

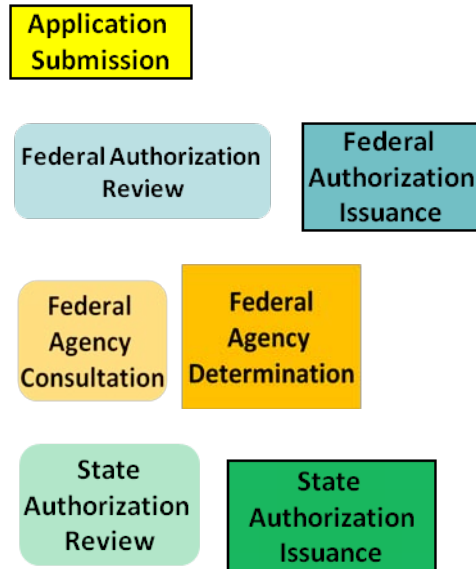
12.11 Florida Roadmaps

The following roadmaps are process schematics which show the approximate timing and sequence of the principle licensing, permitting and environmental review processes involved in siting hydrokinetic projects in the State of Florida. Florida’s state processes are overlaid with the federal processes in these roadmaps to show the relation of timing and sequence between of the state and federal authorizations.

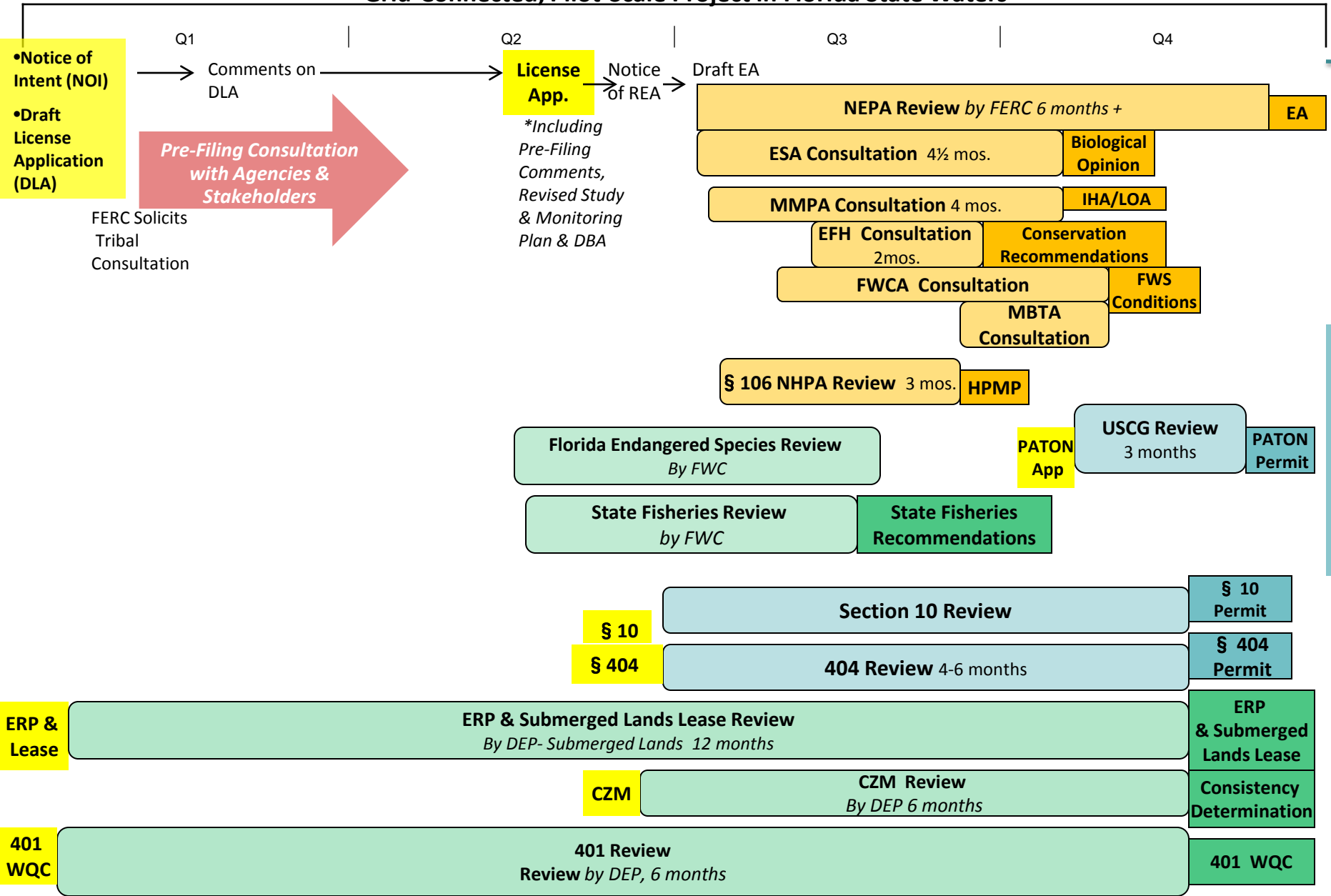
12-A Grid Connected, Pilot Project: Small-scale hydrokinetic projects that are connected to the electric grid may also be used to test and collect data on device performance in the marine environment. Since the project would be transmitting electricity, a FERC license is required. However, small-scale projects may be licensed under the FERC Pilot Process. This roadmap shows all the principle federal and state authorization processes, including the FERC Pilot Process. In this situation, FERC would be the lead federal agency for the project NEPA review.

12-B Grid Connected, Commercial Project: Commercial-scale hydrokinetic projects produce and transmit large amounts of electricity. This roadmap shows all the principle federal and state authorization processes, including the FERC Traditional License Process with Settlement Agreements. In this situation, FERC would be the lead federal agency for the project NEPA review.

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

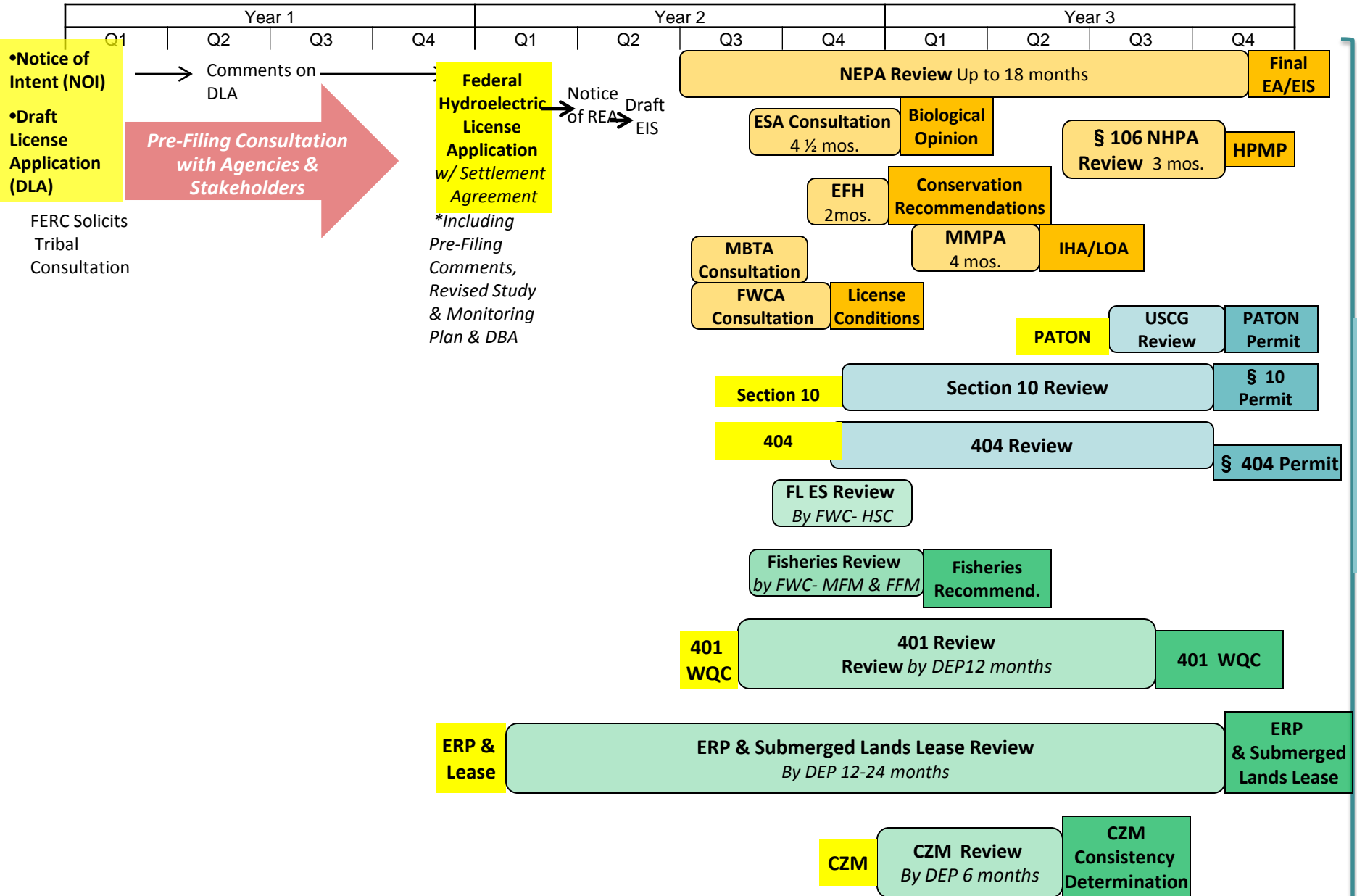


Grid-Connected, Pilot-Scale Project in Florida State Waters



FERC Pilot License

Commercial Hydrokinetic Project in Florida State Waters

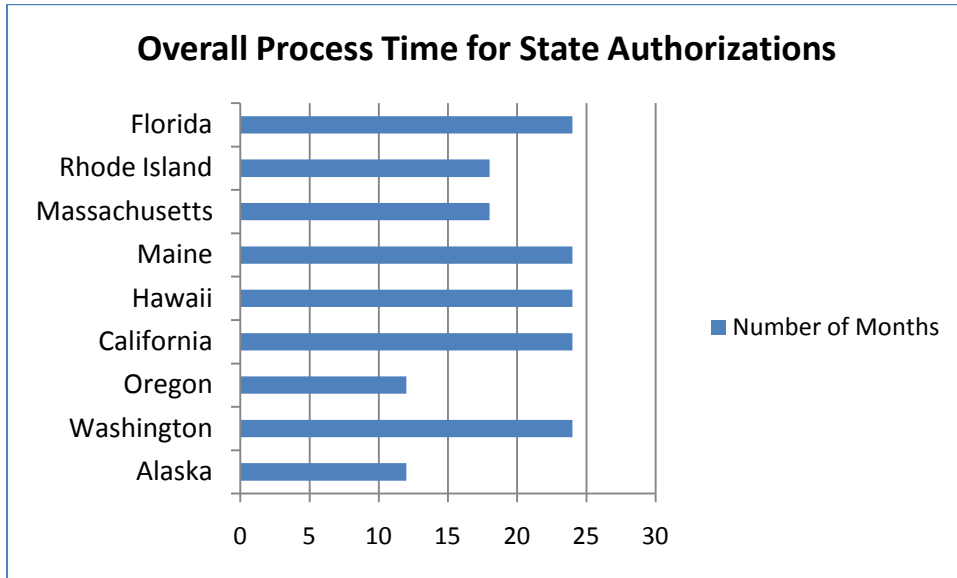


12.12 Florida Agency Contact Information

Agency	Web Address	Mailing Address	City	State	Zip	Phone
Dept. of Environmental Protection	http://www.dep.state.fl.us/mainpage/default.htm	3900 Commonwealth Boulevard M.S. 49	Tallahassee	FL	32399	850-245-2118
DEP- Office of Intergovernmental Programs	http://www.dep.state.fl.us/secretary/oip/	3901 Commonwealth Boulevard M.S. 47	Tallahassee	FL	32400	850-245-2161
DEP-Coastal Management Program	http://www.dep.state.fl.us/cmp/	3902 Commonwealth Boulevard M.S. 47	Tallahassee	FL	32401	850-245-2162
Fish & Wildlife Conservation Commission	http://www.myfwc.com/Index.aspx	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. Each bar on the chart depicts, by state, the total 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.³⁵¹



As demonstrated in the above chart, 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 will 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 environmental review processes to be coordinated. 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 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. Oregon, Washington and Maine have each entered into MOUs with FERC to coordinate

³⁵¹ 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.

reviews of proposed hydrokinetic projects.³⁵² 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 will influence the overall process time for hydrokinetic authorizations, the specific circumstances surrounding individual projects will have 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 years. Similarly, process times will likely be longer for projects proposed in areas that have numerous existing uses or areas with sensitive natural resources.

³⁵² This information is accurate as of November 1st 2009. It is likely that FERC and other states will pursue similar MOUs as the hydrokinetic industry advances.