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**Appendix A: Glossary**

**Appendixes B, C, D…: Maps and Charts**

***These amendments were adopted by the Land Conservation and Development Commission on December 1, 2000, based on a recommendation from the Ocean Policy Advisory Council, January 28, 2000. These amendments are consistent with administrative rules adopted by the Oregon State Land Board in August, 1999, governing easements for submarine fiber-optic cables.***

**1 UNDERSEA CABLES, PIPELINES, AND OTHER UTILITIES OR FIXTURES**

**1.1 The State Perspective**

* 1. **Purpose**

Part Four of the Oregon Territorial Sea Plan provides a strategic framework for the decision-making process, partnerships, and collaborative relationships in undersea utility infrastructure development in the state territorial sea.

* 1. **Goal**

This strategic framework aims to maintain the long-term protection of marine ecosystems, preservation of their ecological functions, economic and social services, and, at the same time, protection of undersea utility infrastructure from potential natural and anthropogenic threats in order to preserve reliable and secure communication and digital data transmission services for Oregonians.

**1.3 Objectives**

This strategic framework identifies the following objectives to be achieved:

1. Maintain and protect marine ecosystems, biological resources, including migratory species, and areas that are of economic (e.g., fisheries, navigation), aesthetic, recreational, social, or historical importance to the people of Oregon, and could be impacted by projects related to cables, pipelines, or utilities.
2. Implement policies and recommendations for undersea utilities routing and landing, installation, maintenance, decommission, and recycling.
3. Engage communities, ocean users, industries, research institutes, and technical experts in decision-making.
4. Establish a process of joint interagency pre-application meetings.
5. Coordinate permitting processes between appropriate state and federal agencies, local and tribal governments for the placement of undersea utilities.
6. Facilitate coordination and cooperation among federal, state, local agencies, and tribal governments, to ensure that mitigation and accident response plans are developed and updated.
7. Promote undersea utility infrastructure resilience to climate change, natural disasters, extreme weather events, and human-made activities.
8. Coordinate undersea utility infrastructure development projects with the growing development of renewable energy facilities in the Pacific Northwest (e.g., offshore wind farms, wave, solar, and hydrogen technologies).
9. **Background**

Oregon’s coast is a prime landing zone for fiber-optic telecommunication cables that cross the ocean floor from sites around the Pacific Rim. Other types of utilities such as ocean outfall pipes are also affixed to the seafloor. In the future, utilities such as natural gas and hydrogen pipelines and power transmission cables from offshore wind farms, may eventually be routed across Oregon’s Territorial Sea bed. Proper placement of utility easements and installation of fixtures is required to avoid damage to or conflict with other ocean uses, such as commercial fishing, and to reduce or avoid adverse effects on marine habitats and coastal communities.

State agencies, such as the Department of State Lands, the Department of Environmental Quality, the Department of Fish and Wildlife, the Oregon Parks and Recreation Department, and the Department of Land Conservation and Development, need clear policies and standards for reviewing and approving the routing and installation of utilities and fixtures on the seafloor of the Oregon Territorial Sea. The policies, standards, data and information within the Territorial Sea Plan should also assist federal agencies in the siting and regulation of utilities and fixtures located in federal waters adjacent to the territorial sea.

* 1. **International Law and Treaties Obligations**

In implementing this strategic framework, the state should consider the following international treaties to ensure adequate oversight and protection of federal and state concerns regarding undersea utility projects:

* **International Convention for the Protection of Submarine Telegraph Cables (Paris Convention, 1884).**

The Convention currently has 36 State Parties obligated to protect submarine cables. The United States ratified this Convention on April 16, 1885.

* **The United Nations Convention on the Law of the Sea (1982).**

The Convention established rules governing all uses of the oceans, seas, and their resources. It addresses the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, area-based management tools, including marine protected areas, environmental impact assessments, capacity-building, and the transfer of marine technology.

The United States did not ratify this treaty. Still, it ratified the Agreement relating to the Implementation of Part XI of the Convention to address certain difficulties with the seabed mining provisions on July 29, 1994.

* **The United Nations Convention on the High Seas (1958).**

The Convention requires states to draw up regulations to prevent pollution of the sea by oil from ships and pipelines or resulting from the exploration and exploitation of the seabed and its subsoil (Article 24). In addition, states also should take measures to prevent pollution of the sea from the dumping of radioactive wastes (Article 25).

The United States ratified this Convention on April 12, 1961.

* **The United Nations Convention on the Continental Shelf (1958).**

The Convention recognizes sovereign rights of the coastal State over the continental shelf for the purpose of exploring it and exploiting its natural resources. Subject to its right, the coastal State may not impede the laying or maintenance of submarine

cables or pipelines on the continental shelf.

The United States ratified this Convention on April 12, 1961.

* **The United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses (1997).**

The Convention establishes standards and rules for cooperation between states on the use, management, and protection of international watercourses. This treaty entered into force on August 17, 2014. The United States did not ratify this Convention.

* **The United Nations Framework Convention on Climate Change (1992) and the Paris Agreement (2015).**

The Convention aims to stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous human interference with the climate system in a time frame that allows ecosystems to adapt naturally and enables sustainable development. The United States ratified this Convention on October 15, 1992.

The Paris Agreement, as a practical instrument of the Convention, requires economic and social transformation to reduce greenhouse emissions (mitigation measures) and to adapt to the current climatic changes (e.g., temperature and sea level rise, precipitation changes) based on the best available science and technologies. The Paris Agreement sparked low-carbon solutions and new markets. Countries, states, cities, and business companies are establishing carbon neutrality targets. This trend is most noticeable in the energy sector. It has created many new business opportunities in the area of renewable energy (e.g., offshore wind, solar, wave, hydrogen, and biomass technology).

The United States accepted the Paris Agreement on September 3, 2016. On November 4, 2019, the United States notified the Secretary-General of its decision to withdraw from the Agreement, which took effect on November 4, 2020. On January 20, 2021, the United States re-entered the Paris Agreement.

Oregon House Bill 2021 established the following clean energy targets: (a) to reduce greenhouse gas emissions associated with electricity to 80% below baseline emissions levels by 2030, (b) 90% below baseline emissions levels by 2035, and (c) 100% below baseline emissions levels by 2040.

*[NOTE: In approving these plan policies for submittal to the Land Conservation and Development Commission in January, 2000, the Ocean Policy Advisory Council approved the addition of explanatory background text, maps, and illustrations prior to publication of the amended plan. This background material will in no way affect the mandatory policies of this section.]*

* 1. **Undersea Cable Systems Development**

The reason undersea cables, specifically fiber optic cables, have been installed on the seabed is that a physical point-to-point connection is the quickest way to transmit data, whether it be voice, video or other forms of digital data. Compared to satellite technology, which came much later than the first advent of an undersea cable, fiber optic cables have lower latency in transmitting data and can do so at much higher capacities than satellites. These days, undersea fiber optic cables are being developed to transmit data at tens of terabits per second per fiber contained within the cable. New cables are deployed each year, and these projects are barely keeping up with the global demand for broadband that has been realized with the use of social media, video streaming, video conferencing, and personal and enterprise cloud services, as well as the growth and use of data centers and data center-to-data center communications/data transfer. The demand for broadband, international connectivity, as well as overall network redundancy is driving the undersea fiber optic cable market and will continue to do so into the future.

As of 2022, there are approximately 530 active and planned undersea fiber optic cable systems (Figure 1). From this total, approximately 80-85 cables land in the United States on both the east and west coasts. Specific to Oregon, 13 submarine fiber optic cable segments land in the state at approximately 6-7 landing locations (Figure 2). Several new cable systems are also planned to land at existing and new cable landings, including submarine power cables.



Figure 1: Global Map of In-Service Undersea Fiber Optic Cable Systems,

Source: Telegeography, Submarine Cable Map, 2022, <https://www.submarinecablemap.com>



Figure 2: Map of In-Service Undersea Fiber Optic Cable Systems Landing in Oregon, Source: Telegeography, Submarine Cable Map, 2023, <https://www.submarinecablemap.com>

[Figures above and below should be adjusted to better quality and can go to Appendixes as an option]

Undersea fiber optic cable systems are designed for a twenty-five (25) year design life though some systems are operated longer. Often a cable is decommissioned either because the cost of ownership and maintenance no longer makes sense for the service the cable provides, or because the cable exceeds its ability to be further upgraded with modern transmission equipment, or the cable route or network path is replaced with a new cable, or a combination of these factors.

A cable system that exceeds the distance of approximately 250 – 500 km (155 – 310 miles) is required to have repeaters spaced along the cable at intervals of roughly 70 – 120 km (43.5 – 74.5 miles) to amplify the signal so that data traffic can continue to be transmitted along the cable for its entire length. As a result of these repeaters, as well as other submerged cable bodies such as branching units, these cable systems are powered with power feed equipment housed on land at each end of the cable system. Figure 3 below illustrates the end-to-end design of a cable system.



Figure 4: Illustration of an Undersea Fiber Optic Cable System

Source: Congressional Research Service (CRS), <https://crsreports.congress.gov/product/pdf/R/R47237>

Undersea fiber optic cable systems get damaged each year. The primary damage cause is bottom contact fishing and vessel anchors with over 70% of fiber optic cable damages resulting from these occurrences globally. As a result, protecting undersea cables has always been a priority for the cable industry. A consistent theme in industry best practices revolves around the protection of digital and power infrastructure assets both onshore and offshore and drives the placement, installation methods, as well as operations and maintenance of undersea cables. In addition, undersea cable systems are considered vulnerable critical infrastructure.

Thus, state agencies, such as the Department of State Lands, the Department of Fish and Wildlife, the Oregon Parks and Recreation Department, and the Department of Land Conservation and Development, need clear policies and standards for reviewing and approving the routing, installation, maintenance, and decommissioning of utilities on the seafloor of Oregon and adjacent federal waters as well as a coordinated permitting process between state agencies, local and tribal governments.

1. **Policies, Jurisdictions, and Resource Inventory**

The following policies and implementation requirements are mandatory. Decisions of state agencies with respect to approvals of permits, licenses, leases or other authorizations to construct, operate, maintain, or decommission any utilities on the seafloor in Oregon’s territorial waters and/or connected from the seafloor to the ocean shore must comply with the requirements mandated in the Territorial Sea Plan. Once NOAA/OCRM approves the incorporation of the enforceable policies of the Territorial Sea Plan into the Oregon Coastal Management Program, they are applicable to those federal actions that affect Oregon’s coastal zone and are subject to the federal consistency requirements of the federal Coastal Zone Management Act.

When proposing a project an applicant shall:

1. Maintain and protect renewable marine resources (i.e. living marine organisms), ecosystem integrity, marine habitat, and areas important to fisheries, navigation, recreation and aesthetic enjoyment from adverse effects that may be caused by projects related to cables, pipelines, or other fixtures by requiring that such actions:
2. Avoid adverse effects to the integrity, diversity, stability and complexity of the marine ecosystem and coastal communities, and avoid conflicts between commercial or recreational fishing, or other ocean/coastal-use activities and utilities, and give first priority to the conservation and use of renewable marine resources;
3. reduce any adverse effects when conflicts cannot be avoided;
4. mitigate for adverse effects after first reducing them to the minimum practicable;

and

1. Restore the natural characteristics of a site to the extent practicable when the project is decommissioned and removed. (*see also* Statewide Planning Goal 19, Ocean Resources and the Oregon Territorial Sea Plan)

When making decisions to approve projects regulating state agencies shall:

1. Strongly encourage applicants to engage with local, state and federal agencies, community stakeholders, tribal governments and affected ocean users in a collaborative agreement-seeking process prior to formally requesting authorization to initiate a project.
2. Promote direct communication and collaboration between the applicant and affected ocean users and coastal communities to resolve or avoid conflicts and require written agreements among the parties when necessary to ensure communication and memorialize agreements.
	1. **Federal**

Describe existing legislation, regulations, standards, permits, licenses, project-based authorizations at the federal level, and any bilateral and regional agreements (e.g., Memorandum of Understanding, Letter of Cooperation, etc.). Consider the following:

* Federal agency’s responsibilities (e.g., BOEM, NOAA, USACE, Federal Energy Regulatory Commission, others).
* Permitting procedures and points of contact (e.g., Nationwide #12 Permit or Standard Individual 404 Permit, USACE).
* Federal consistency.
* Cable protection law (ICPC BP 5).
* Cable protection measures directed at fishing and anchoring risks (ICPC BP 2).
* Research institutes and facilities.
	1. **State**

Describe existing legislation, regulations, standards, permits, licenses, project-based authorizations at the state level, and bilateral and regional agreements (e.g., California, Washington). Consider the following:

* State agency’s responsibilities (e.g., DLCD, DSL, OPRD, ODFW, DEQ, others).
* Permitting procedures, points of contact (e.g., easement authorization, removal-fill permit, 401 water quality certificate, ocean shore alteration permit, fish and wildlife authorization), and public consultations.
* Federal consistency review.
* Oregon Statewide Planning Goal 19.
* Research institutes and facilities.

**3.3 Local**

Describe existing regulations, standards, permits, licenses, project-based authorizations at the local level (county and city), and bilateral and local agreements with tribes and communities. Consider the following:

* Local governments’ responsibilities (e.g., county and city).
* Permitting procedures and points of contact (e.g., conditional use permit, development permit, floodplain development permit) and public hearings.
* Research observation and facilities.

**4. Implementation Requirements**

Applicants shall adhere to the following implementation requirements (detailed below) when proposing a project related to cables, pipelines, or other fixtures within the Oregon Territorial Sea. This includes the utility cables that transmit the electrical energy from a renewable energy facility to the onshore substation, as prescribed in Part Five of the Territorial Sea Plan, Use of the Territorial Sea for the Development of Renewable Energy Facilities or Other Related Structures, Equipment or Facilities. The requirements in Part Two, Making Resource Use Decisions, sections A and B will not apply to projects related to cables, pipelines, or other fixtures within the Oregon Territorial Sea.

When approving projects state agencies shall avoid or reduce conflicts or adverse effects on natural resources or other ocean users through the following measures:

* 1. **Cable Burial.**

1.) In state waters: All undersea cables crossing or affixed to state lands of the territorial sea lying seaward of Extreme Low Water (which is the seaward boundary of the Ocean Shore Recreation Area) shall be buried so as to ensure continuous burial unless the approving state agencies make findings that burial cannot be practically achieved and all affected parties agree that adverse effects of not burying the cable have been reduced, avoided, or mitigated to the extent practicable.

2.) In federal waters: Decisions to permit burial of cables crossing or affixed to the seabed of the outer continental shelf (beneath federal waters) to a depth of 1500 meters, or to a latitude/longitude agreed to by affected stakeholders, off Oregon will be deemed consistent with this state policy. When a federal agency does not require burial in waters to this depth, the state may concur that the decision is consistent with state policy ~~only~~ if the federal agency makes findings that burial cannot be practically achieved ~~and~~ or all affected parties agree that adverse effects of not burying the cable, pipeline, or fixture, have been reduced, avoided, or mitigated to the maximum extent practicable.

3.) Burial shall be certified by the contractor to the easement-granting agency.

b. The easement-granting agency shall require that cables, pipelines, or other utility fixtures shall be inspected as part of installation or as otherwise required by a regulatory agency, and after any major geologic event, such as subduction- zone earthquake, to ensure continued burial and/or infrastructure integrity.

**4.2. Agency Communication, Coordination, and Review Process**

State agencies shall apply the policies and provisions of the Oregon Ocean Resources Management Plan, Oregon Territorial Sea Plan, and Statewide Planning Goals as required to comply with State Agency Coordination Programs (OAR chapter 660, divisions 30 and 31). In accordance with the federal Coastal Zone Management Act, federal consistency regulations (15 CFR Part 930), and ORS 196.435, the Department of Land Conservation and Development will review the consistency certification together with required necessary data and information submitted by the applicant for federal authorization for projects related to cables, pipelines, or other utilities or fixtures within the Oregon Territorial Sea to ensure the project is consistent with enforceable policies of the Oregon Coastal Management Program, including the Territorial Sea Plan. The Department of State Lands (DSL) shall coordinate the review of applications for easements and permits in the Territorial Sea in consultation with the Joint Agency Review Team (JART) as described below.

**4.3. Joint Agency Review Team**

DSL shall convene the JART during the pre-application and application coordination meetings in order to facilitate the coordination of state and federal agencies, and local jurisdictions, as they apply their separate regulatory, proprietary, or other authorities to the review of a proposed project in the territorial sea and its associated landing sites.

* + 1. DSL will invite representatives from the following agencies, jurisdictions and organizations to the coordination meetings:

JART Membership:

1. Departments of Fish and Wildlife, Parks and Recreation, Environmental Quality, Land Conservation and Development, Environmental Quality, and Geology and Mineral Industries, and other agencies with regulatory or planning authority, or advisory expertise, applicable to the proposed project and location as necessary;

2) Federal agencies, as invited, with regulatory or planning authority applicable to the proposed project and location;

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

4) Statewide and local organizations and advisory committees, as invited, to participate in the JART application of specific standards, including but not limited to those addressing areas important to fisheries, ecological resources, recreation and visual impacts; and,

5) Federally recognized Coastal Tribes in Oregon.

**4.3.2** **JART Roles and Responsibilities**

1) The JART will coordinate with DSL on the pre-application review process, and comment on the adequacy of the resource inventories and effects evaluations required under subsection 4.4 (Resource and Use Inventory and Effects Evaluation).

2) The JART will make recommendations to DSL on the approval of Territorial Sea easements and other authorizations, and to other applicable regulatory agencies on their decision to permit, license or authorize a proposed cable, pipeline or other utility in the territorial sea or associated landing sites.

3) The JART recommendations are advisory; regulating agencies who are members of the JART still operate in accordance with their own rules and statutory mandates.

4) DSL may acquire the services of technical experts at the expense of the applicant to assist the JART in analyzing specific subject information such as marine business economics and operations, as necessary to conduct the application review.

**4.4. Resource and Use Inventory and Effects Evaluation**

An applicant must provide the regulating agencies the data and information to complete the Resource and Use Inventory and Effects Evaluation, prior to the regulating agencies making any decision. An applicant may use relevant inventory information included in a project application to a federal agency to meet the requirements of this subsection.

**4.4.1. Purpose of the Resource and Use Inventory and Effects Evaluation**

The purpose of the Resource and Use Inventory and Effects Evaluation is to provide the regulating agencies the data and information necessary to make a decision based on the potential effects the project might incur. The Resource and Use Inventory and Effects Evaluation will help identify where the applicant needs to address deficiencies in the proposed project. The regulating agency will use the evaluation to develop specific measures for environmental protection and mitigation as well as measures to protect other ocean uses.

**4.4.2. Sufficiency of Resource and Use Inventory and Effects Evaluation**

An applicant must provide information and data to complete the Resource and Use Inventory and Effects Evaluation that is sufficient to identify and quantify the short-term and long-term effects of the proposed cable, pipeline or other utility or fixture in the territorial sea and associated landing sites on the affected marine resources and uses.

**4.4.3. Use of Available Environmental Information**

Regulating agencies may allow the applicant to use existing data and information from other authoritative sources, when complying with the requirements for the Resource and Use Inventory and Effects Evaluation.

**4.4.4. Inventory Content**

To evaluate the magnitude of the proposed project, the likelihood of project effects, and the significance of the potential effects to resources and uses, regulating agencies shall require that the applicant include consideration of certain factors in the inventory. The Resource and Use Inventory and Effects Evaluation listed below apply to all proposed undersea cable projects in the territorial sea and associated landing sites for which an applicant pursues a DSL Territorial Sea easement, unless the requirements are waived by DSL or otherwise addressed in another part of the Territorial Sea Plan. Projects in the territorial sea related to pipelines or other utilities or fixtures have additional data Inventory contents specifically mentioned.

**4.4.4.1.** Information to be provided by applicants about the proposed project within the Oregon Territorial Sea:

(a) Location (using maps, charts, descriptions, etc.);

(b) Numbers and sizes of equipment, structures;

(c) Methods, techniques, activities to be used;

(d) Transportation and transmission systems needed for service and support;

(e) Materials to be disposed of and method of disposal;

(f) Physical and chemical properties of hazardous materials, if any, to be used or produced (e.g. chemicals used in Horizontal Directional Drilling, materials which may be transported by a pipeline, etc.); and

(g) Proposed time schedule.

**4.4.4.2.** Location and description of all affected areas, including, but not limited to:

(a) Proposed route of the cable, pipeline, or other utility;

(b) Adjacent areas that may be affected by physical changes in currents and waves caused by the project;

(c) Onshore facilities.

**4.4.4.3.** Physical and chemical conditions including, but not limited to:

1. Bathymetry (bottom topography) and Shoreline Topography, including profile of water depth along the route;

Additionally for pipelines or other utilities or fixtures:

1. wave regime;
2. typical and maximum current velocities;
3. dispersal characteristics;
4. meteorological conditions; and
5. water quality.

**4.4.4.4.** Geologic structure, including, but not limited to:

(a) Geologic hazards, such as faults or landslides of both marine and shoreline facility areas;

(b) Mineral deposits;

(c) Seafloor substrate type; and

(d) Hydrocarbon resources.

**4.4.4.5.** Biological and ecological features affected by the project, including, but not limited to:

(a) All habitats along the proposed route, specifically including critical marine habitats (see Part Four, Appendix A)

(c) Recreationally or commercially important finfish or shellfish species;

(e) Benthic flora and fauna;

(f) Other ecosystem elements; and

(g) Community composition of resident and migratory species.

**4.4.4.6.** Cultural, economic, and social uses affected by the project, including, but not limited to:

 (a) Commercial and sport fishing;

(b) State or federally protected areas;

(c) Scientific research;

(d) Ports, navigation, and dredge material disposal sites;

(e) Recreation;

(f) Coastal community economy;

(g) Aquaculture;

(h) Wastewater or other discharge;

(i) Utility or pipeline corridors and transmission lines;

(j) Military uses; and

(k) Aesthetic resources.

**4.4.4.7.** Significant historical, cultural or archeological resources.

**4.4.4.8.** Other data that the regulating agencies determine to be necessary and appropriate to evaluate the effects of the proposed project.

**4.4.5. Written Evaluation**

Regulating agencies shall require the applicant to submit a written evaluation of all the reasonably foreseeable adverse effects associated with projects related to cables, pipelines, utilities or other fixtures within the Oregon Territorial Sea and associated onshore facilities. For purposes of the evaluation, the submittal shall base the determination of “reasonably foreseeable adverse effects” on scientific evidence. The evaluation shall describe the potential short-term and long-term effects of the proposed project to marine resources and uses of the Oregon territorial sea, continental shelf, onshore areas and coastal communities based on the inventory data listed above and the following considerations:

4.4.5.1. Biological and Ecological Effects: Biological and ecological effects include those on critical marine habitats and other habitats, and on the species those habitats support. The evaluation need not discuss highly speculative consequences. However, the evaluation shall discuss possible outcomes that are likely to occur and catastrophic environmental effects of low probability. Factors to consider include, but are not limited to:

(a) The time frames/periods over which the effects will occur;

(b) The maintenance of ecosystem structure, biological productivity, biological diversity, and representative species assemblages;

(c) Maintaining populations of threatened, endangered, or sensitive species;

(d) Vulnerability of the species, population, community, or the habitat to the proposed actions; and

(e) The probability of exposure of biological communities and habitats to adverse effects from operating procedures or accidents.

4.4.5.2. Current Uses: Evaluate the effects of the project on current uses and the continuation of a current use of ocean resources such as fishing, recreation, navigation, and port activities. Factors to consider include, but are not limited to:

(a) Local and regional economies;

(b) Archeological and historical resources; and

(c) Transportation safety and navigation.

4.4.5.3. Natural and Other Hazards: Evaluate the potential risks to the project, in terms of its vulnerability to certain hazards and the probability that those hazards may cause loss, dislodging, or drifting of structures, buoys, or facilities. Consider both the severity of the hazard and the level of exposure it poses to the renewable marine resources and coastal communities. Hazards to be considered shall include slope failures and subsurface landslides, faulting, tsunamis, variable or irregular bottom topography, weather related, or due to human cause.

4.4.5.4. Cumulative Effects: Evaluate the cumulative effects of a project, including the onshore component, in conjunction with effects of any past projects, other current projects, and probable future projects. The evaluation shall analyze the biological, ecological, physical, and socioeconomic effects of the proposed project and other projects along the Oregon coast, while also taking into account the effects of existing and future human activities and the regional effects of global climate change.

(a) In conducting the cumulative effects analysis, the applicant shall focus on the specific resources and uses, as detailed under section 4.4.4 that may be affected by the incremental effects of the proposed project and other projects in the same geographic area. The evaluation shall include but not be limited to consideration of whether:

i. the resource and uses are especially vulnerable to incremental effects;

ii. the proposed project is one of several similar projects in the same geographic area;

iii. other developments in the area have similar effects on the resources and uses;

iv. these effects have been historically significant for the resource and uses; and

v. other analyses in the area have identified a cumulative effects concern.

**4.5 Routing and Landing**

Locations for new cables, pipelines, or other utilities shall conserve areas available to ocean fisheries, prevent or avoid conflicts with other uses, protect marine habitats, and minimize adverse effects on other natural resources of the seafloor or ocean shore. New rights of way may be required to be located as close to existing rights of way as possible or with sufficient capacity to enable future expansion within the approved right of way.

**4.6 Installation**

**4.7 Maintenance**

* 1. **Decommission and Recycle**

1) At least 180 days before decommissioning an undersea cable, the owner or operator

of the undersea cable shall submit to the Department of State Lands for approval a decommissioning plan

that includes:

1. A cost estimate, prepared by a person qualified by experience and knowledge to prepare the estimate, for decommissioning the cable and restoring the area authorized by the easement to a natural condition;
2. A detailed description of and proposed schedule for the decommissioning and restoration work, including any corrective action that may be required under the easement;
3. A detailed description of segments of bore pipe and undersea cable proposed to be left in place to avoid or minimize impacts to aquatic resources; and
4. A proposed form of financial assurance in an amount equal to the cost estimate under paragraph (a) of this subsection.

2) Within 30 days of receiving a decommissioning plan under subsection (1) of this section, the Department of State Lands shall approve the plan or request revisions to the plan or additional information. If, after receiving revisions to the decommissioning plan or additional information, the department rejects the plan, the owner or operator of the undersea cable must within 90 days submit to the department an application for an easement for the

encroachment created by the undersea cable.

3) The owner or operator of an undersea cable may not begin decommissioning and

restoration work unless:

1. The department has approved a decommissioning plan under subsection (2) of this section;
2. The owner or operator has acquired the financial assurance required under subsection (1) of this section; and
3. The owner or operator has provided to the Department of State Lands notice that the work will begin at least 60 days prior to beginning the work.
4. The financial assurance requirements established by subsection (1) of this section may be satisfied by furnishing a financial assurance instrument that is:

a) A surety bond, cash deposit or certificate of deposit; and

b) In the name of the State of Oregon.

**5 Customs Duties and Fees**

**6 Communication and Cooperative Mechanisms**

Written agreements between the applicant and fishers or other users shall be required by the easement-granting agency as evidence of communication and coordination. Such agreements may coordinate work, determine routing, identify routes, respond to emergencies, provide for mitigation of adverse effects, or specify procedures for on-going communication. Written agreements, when required, shall specify how fishers or other users and the applicant will resolve disputes over lost fishing gear, damage to seafloor utilities, or liability for such actions.

**7 Territorial Sea Plan Review**

Territorial Sea Plan Part Four shall be subject to review by the Ocean Policy Advisory Council (OPAC) no longer than seven years after it has been adopted. OPAC may, at any time, choose to initiate an amendment of the plan through the process described under Part One, section F.2, Changing the Plan and ORS 196.443(1)(a).

**Part Four Appendix A: Definitions and Terms**

The following definitions shall apply to Part Four, unless the context requires otherwise:

**Adverse Effect for Ecological Resource Protection Standards**: degradation in ecosystem

function and integrity (including but not limited to direct habitat damage, burial of habitat,

habitat erosion, reduction in biological diversity) or degradation of living marine organisms

(including but not limited to abundance, individual growth, density, species diversity, species

behavior).

**Adverse Effect for Fisheries Use Protection Standards**: a significant reduction in the access

of commercial and recreational fishers to an area spatially delineated as an area important to a

single fishing sector, multiple combined sectors, or to the fishing community of a particular

port.

**Applicant**: An applicant for a state permit, license, lease or other authorization for the evaluation, siting, routing, placement, operation, or removal of a cable, pipeline, seafloor utility or fixture will be referred to as “the applicant”.

**Areas important to fisheries**: (Goal 19)

a.) areas of high catch (e.g., high total pounds landed and high value of landed catch);

b.) areas where highly valued fish are caught even if in low abundance or by few fishers;

c.) areas that are important on a seasonal basis;

d.) areas important to commercial or recreational fishing activities, including those of

individual ports or particular fleets; or

e.) habitat areas that support food or prey species important to commercially and recreationally

caught fish and shellfish species.

**Conservation**: a principle of action guiding Oregon’s ocean-resources management, which

seeks to protect the integrity of marine ecosystems while giving priority to the protection and

wise use of renewable resources over nonrenewable; as used in the Oregon Ocean Resources

Management Plan, the act of conservation means ‘that the integrity, diversity, stability,

complexity, and the productivity of marine biological communities and their habitats are

maintained or, where necessary, restored’ and ‘accommodate(ing) the needs for economic

development while avoiding wasteful uses and maintaining future availability..”

**Critical marine habitat**: means one or more of the following land and water areas:

a.) areas designated as “critical habitat” in accordance with federal laws governing threatened

and endangered species; or

b.) areas designated in the Territorial Sea Plan as either:

1.) as needed for the survival of animal or plant species listed by state or federal laws as

“threatened”, “endangered”, or “sensitive”. Such areas might include special areas used for

feeding, mating, breeding/spawning, nurseries, parental foraging, overwintering, or haul

out or resting. This designation does not limit the application of federal law regarding

threatened and endangered species; or

2.) “unique” (i.e. one of a kind in Oregon) habitat for scientific research or education

within the territorial sea. (Territorial Sea Plan, Part Two)

**Ecosystem**: the living and non-living components of the environment which interact or

function together, including plant and animal organisms, the physical environment, and the

energy systems in which they exist. All the components of an ecosystem are interrelated.

(Oregon Statewide Planning Goals)

**Habitat**: the environment in which an organism, species, or community lives. Just as humans

live in houses, within neighborhoods, within a town or geographic area, within a certain region,

and so on, marine organisms live in habitats which may be referred to at different scales. (see

also “critical marine habitat”, “important marine habitat”) (Territorial Sea Plan Appendix A:

Glossary of Terms)

**Important marine habitat**: (Goal 19) are areas and associated biologic communities that are:

a.) important to the biological viability of commercially or recreationally caught species or that

support important food or prey species for commercially or recreationally caught species;

b.) needed to assure the survival of threatened or endangered species;

c.) ecologically significant to maintaining ecosystem structure, biological productivity, and

biological diversity;

d.) essential to the life-history or behaviors of marine organisms;

e.) especially vulnerable because of size, composition, or location in relation to chemical or

other pollutants, noise, physical disturbance, alteration, or harvest; or

f.) unique or of limited range within the state.

Important marine habitats must be specifically considered when an information and effects

assessment is conducted pursuant to Goal 19: including but not limited to: habitat necessary for

the survival and conservation of Oregon renewable resources (e.g. areas for spawning, rearing,

or feeding), kelp and other algae beds, seagrass beds, seafloor gravel beds, rock reef areas and areas of important fish, shellfish and invertebrate concentration (Goal 19).

**Impact**: is the severity, intensity, or duration of the effect, and can be either or both positive or

negative outcomes.

**Minimize**: to reduce or avoid the effect to the extent practicable.

**Mitigate**: is the avoidance or minimization of a direct or indirect ecological effect or impact

on a receptor through engineering or operational modification of the project. Mitigation does

not refer herein to so-called “offsite” mitigation or to compensatory mitigation (i.e., paying or

compensating for environmental damage).

**Precautionary Approach**: the application of a planning and regulatory decision making

system that accounts for circumstances where information about marine resources and uses is

limited, and there are increased levels of risk and uncertainty related to the outcome of the

action. The principle of the precautionary approach is found in the Management Measures

provided in Part One, section G. and in Goal 19 Ocean Resources.

**Presumptive Exclusion for Ecological Resource Protection Standards**: the assumption that

the distribution and importance of ecological resources within an area would preclude the siting

of a renewable marine energy facility based on the potential adverse effects of that

development on those identified resources.

**Presumptive Exclusion for Fisheries Use Protection Standards**: the assumption that the

distribution and importance of fisheries use within an area would preclude the siting a

renewable marine energy facility based on the potential adverse effects of that development on

those identified resources and uses.

**Project**: includes evaluation, siting, routing, placement, operation, or removal of a cable, pipeline, seafloor utility or fixture.

**Regulating agency or regulating agencies**: State agencies making decisions to authorize the

siting, development and operation of renewable energy facilities or other related structures,

equipment or facilities within the territorial sea.

**Cable(s)** includes a cable used to conduct electricity or light that is placed on state-owned submerged or submersible lands within the territorial sea and any facilities associated with the cable.

**Pipeline(s)** includes any line of pipe, with or without equipped pumps, valves, and other control devices, used to move liquids, gasses, and/or slurries.

**Utility/utilities** includes any infrastructure affixed to the seafloor, not otherwise defined in this glossary, which provide the public with an essential good or service (heat, gas, electricity, water, sewage treatment, data, etc).

**Fixture(s)** includes any infrastructure affixed to the seafloor, not otherwise defined in this glossary, including but not limited to scientific and research devices, observation devices, (?)

**Appendix B: Maps and Charts**