

7. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

An irreversible or irretrievable commitment of resources refers to impacts on or losses to resources that cannot be reversed or recovered, even after an activity has ended and facilities have been decommissioned. A commitment of resources is related to use or destruction of nonrenewable resources, and the impacts that loss would have on future generations. For example, if a species becomes extinct or minerals are extracted as a result of a proposed action, the loss would be permanent. Similarly, chronic, low-level pollution from a proposed project can injure and kill organisms at all trophic levels, leading to mortality of individual organisms, as well as possible reduction or elimination of small or isolated populations of some organisms.

The construction and operation of the SPOT Project would involve the irreversible or irretrievable commitment of material resources and energy, marine area resources, and biological resources, as discussed below. The impacts on these resources would be permanent. The impacts described below incorporate BMPs and mitigation measures that the Applicant has agreed to implement, as described throughout Chapter 3, Environmental Analysis of the Proposed Action, and as listed in Appendix N, List of Applicant's BMPs and Agency Recommended Mitigation Measures.

The work required to construct and operate the proposed Project would require the conversion of available fossil fuels to energy, an irreversible commitment of fossil fuels. The completed Project would also irretrievably commit finite raw materials, such as steel, although some steel used in the Project may be recyclable after decommissioning. No supplies committed to the Project are considered scarce, and the use of these supplies would not limit other unrelated construction activities in the region.

Project construction and operation would result in an irreversible or irretrievable loss of some biological resources. Irretrievable losses of seafloor habitat associated with the footprint of the jacketed platform, the PLEMs, and the mooring system for the SPM buoys would occur over the life of the proposed Project. Due to the removal of these features upon decommissioning, the seafloor habitat in the area would return to near-normal pre-Project conditions; however, permanent changes in the seafloor habitat at the site of the Project footprint would constitute irreversible impacts, though they would be minimal. Construction would also result in the entrainment of fish eggs and larvae due to water withdrawals during hydrostatic testing of the subsea pipeline. These losses would result in irreversible impacts.

Biological losses during Project operation would include the entrainment of fish eggs and larvae associated with cooling water, firewater, and ballast water intake. Associated loss of ecological services would occur during construction and operation of the proposed Project. These services, including any commercial or recreational ocean use in the area, would return after decommissioning of the proposed Project; however, the ecological services lost or unavailable during this period would not be recovered after completion of decommissioning. Therefore, these losses would be irreversible or irretrievable. Irreversible losses may also include the loss of biological resources in the event of an oil spill, and loss of sea turtles or marine mammals due to vessel strikes.

Although the impact on archaeological resources is expected to be minor, any interaction between an impact-producing factor (e.g., placement of new structures and installation of pipelines) and a significant

historic shipwreck or prehistoric site could permanently affect information contained in archaeological site components and the spatial distribution of those components. This could cause a permanent loss of potentially unique archaeological data. The Applicant's site selection process and the alternatives analysis conducted in this EIS take into account the potential for the presence of archaeological resources in the area. The proposed location for the SPOT DWP was selected to minimize the potential to disturb archaeological artifacts, among other parameters.

Construction and operation activities authorized under the DWPA would be carried out under comprehensive, enforced regulatory procedures designed to protect public safety and the environment. Nonetheless, some loss of human and other biological life could result from unpredictable and unexpected natural or human occurrences (i.e., accidents, terrorism, human error and noncompliance, adverse weather conditions, etc.). Some normal and required operations, such as structure removal done in accordance with applicable laws and regulations, can result in the destruction of marine life. Although the possibility exists that individual marine mammals, sea turtles, birds, and fish could be injured or killed, these losses are unlikely to have a lasting impact on existing populations, and thus would not constitute irretrievable or irreversible impacts.