

Chapter 9

Short-Term Uses versus Long-Term Productivity of the Environment

The National Environmental Policy Act (NEPA) requires an environmental impact statement (EIS) consider the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity (40 Code of Federal Regulations [CFR] 1502.16). NEPA recognizes the link between short-term uses and long-term productivity of the environment. This section discusses whether the short-term uses of environmental resources from construction and operations of the proposed export terminal would affect the long-term productivity of the environment.

Short-term uses of the environment associated with the proposed export terminal at the On-Site Alternative location or Off-Site Alternative location are generally the same as the impacts described for each resource in Chapters 4, 5 and 6 of this Draft EIS. These impacts would include both temporary and permanent use of the physical environment resulting from the proposed export terminal. In evaluating the effect of these uses on long-term productivity, the main types of long-term productivity are considered are land use productivity, water resources productivity, and biological resources productivity.

The relationship between short-term uses and long-term productivity of the environment would not be appreciably different between the On-Site Alternative and Off-Site Alternative. Short-term uses and long-term productivity of the environment would not change if the U.S. Army Corps of Engineers (Corps) does not issue a Department of the Army permit under Clean Water Act Section 404 and Rivers and Harbors Act Section 10 for the proposed export terminal.

9.1 Land Use Productivity

Construction of the terminal at the Off-Site Alternative location would affect land use productivity through the acquisition and conversion of approximately 220 acres of undeveloped land to industrial use. Construction of the terminal at the On-Site Alternative location would not affect land use productivity because the On-Site Alternative location is primarily vacant industrial land zoned for industrial use.

9.2 Water Resources Productivity

Surface water, groundwater, and wetlands contribute to long-term water resources productivity by providing such functions as habitat for aquatic and terrestrial species, filtration, flood attenuation, recharge, and general water use. Construction of the proposed export terminal would result in impacts ranging from short-term disturbance to permanent impacts on water resources.

9.2.1 Surface Waters

Construction of the proposed export terminal would permanently fill 11 acres of surface water (ditches and ponds) at the On-Site Alternative location and 8.61 acres of surface water at the Off-Site Alternative location. At both locations, these waterbodies support amphibians, small mammals, and birds. The loss of these waters would permanently decrease long-term productivity of this resource.

Construction could affect short-term productivity because surface water runoff would transport fine-grained sediments and pollutants, which could alter water body chemistry and affect water quality. Dredging and dock installation could cause short-term productivity losses for aquatic species through degraded water quality (e.g., turbidity) and alteration of habitat (e.g., change to deeper water habitats). Overwater structures could affect the long-term productivity of surface water by such means as temperature changes from shading.

9.2.2 Groundwater

Construction of the proposed export terminal would require a minor amount of groundwater in light of available resources and existing water rights at the On-Site Alternative location, which should have no impact on long-term productivity. However, terminal operation would involve a relatively minor but continuous use of groundwater, resulting in a decrease in long-term groundwater productivity.

9.2.3 Wetlands

Construction of the proposed export terminal would permanently fill 24.10 acres of wetland at the On-Site Alternative location or 51.28 acres of wetland at the Off-Site Alternative location, resulting in a permanent loss of wetland functions and long-term productivity of this resource. Compensatory mitigation would likely be required to offset these adverse impacts, but depending on the specific compensatory mitigation involved, some long-term wetland productivity loss could still occur.

Long-term impacts on wetland productivity could result from indirect impacts on wetlands adjacent to the terminal. Fragmentation or reduced hydrology would degrade the functionality of remaining wetlands. These impacts would permanently reduce wetland productivity in the area.

9.3 Biological Resources Productivity

Vegetation, wildlife, and fish contribute to biological productivity, which provides ecological benefit. Construction of the proposed export terminal would have short- and long-term impacts on these resources.

9.3.1 Vegetation

Construction of the proposed export terminal would result in the permanent loss of 26.26 acres of upland vegetation and 24.10 acres of wetland vegetation at the On-Site Alternative location and 155.46 acres of upland vegetation and 51.28 acres of wetland vegetation at the Off-Site Alternative location. These areas consist of forested, herbaceous, managed herbaceous, and scrub-shrub vegetation. These impacts would be permanent and the long-term productivity of vegetation in these areas would be lost.

9.3.2 Wildlife

During construction, wildlife habitat would be permanently removed from the footprint of the proposed export terminal. Wildlife in these areas could be displaced to habitats outside the project area, but mortality of some less mobile wildlife could occur. Operation of the proposed export terminal would likely result in some wildlife mortality from collisions with work and maintenance vehicles. The On-Site Alternative location is an industrial site, and wildlife habitat is already highly degraded. The Off-Site Alternative location has already been disturbed by agricultural uses and adjacent industrial uses. Therefore, constructing and operating the proposed export terminal would be expected to have relatively minor long-term impacts on wildlife productivity.

9.3.3 Fish

Impacts on fish from construction and operation of the proposed export terminal would include increased sedimentation and turbidity from disturbance of the ground surface and dredging, loss or alteration of aquatic habitats due to dredging and installation of piles, underwater noise from pile-driving, overwater shading by docks, degradation of water quality from spills and leaks, and fish stranding from vessel wakes. Constructing the proposed export terminal would result in short-term, localized impacts on fish due to sedimentation and turbidity, underwater noise, and water quality degradation. Permanent overwater structures could affect the long-term productivity of fish due to such factors as behavioural changes and increased predation under the structures. Downstream of the project area, mortality of smaller fish, such as juvenile salmonids, from stranding caused by vessel wakes could affect long-term productivity of fish.

