

3.18 Irreversible and Irretrievable Commitment of Resources

The Proposed Action would result in the irreversible commitment (e.g., loss of future options for resource development or management, especially of nonrenewable resources, such as minerals and cultural resources) or the irretrievable commitment of resources (e.g., the lost production or use of natural resources during the life of operations). Irreversible and irretrievable impacts of the Proposed Action are summarized for each resource in **Table 3.18-1**.

Table 3.18-1 Irreversible and Irretrievable Commitment of Resources by the Proposed Action

Resource	Irreversible Impacts	Irretrievable Impacts	Description
Geology and Mineral Resources	Yes	Yes	Lignite mining would cause an irreversible change in the topography of the disturbance area and an irreversible and irretrievable commitment of the approximately 138 million tons of lignite that would be mined, and thus, would not be available for future use.
			Access to oil and gas resources in the Rusk Permit Area would be temporarily restricted during active mining and reclamation; this would not be considered an irreversible or irretrievable resource commitment.
Water Resources	Yes	Yes	<p>Groundwater levels and groundwater quality affected by mine dewatering would recover in the long term. The groundwater lost during mine operations is considered an irretrievable resource commitment.</p> <p>There would be an irretrievable loss of surface water resources associated with the removal of approximately 5.4 acres of perennial streams, 22.1 acres of ephemeral streams, 13.5 acres of intermittent streams, and 48.3 acres of impoundments associated with mine construction and operation. These impacts would be reversible with successful implementation of Sabine's proposed Conceptual Mitigation Plan. Over time, surface water runoff modifications would be reduced by reclamation and revegetation; irreversible surface water impacts are not anticipated.</p> <p>There would be an irretrievable loss of a total of 303.1 acres of waters of the U.S., including 151.2 acres of forested wetlands, 62.6 acres of non-forested wetlands, 22.1 acres of ephemeral streams, 13.5 acres of intermittent streams, 5.4 acres of perennial streams, and 48.3 acres of ponds during mine operations. These impacts would be reversible with successful implementation of Sabine's proposed Conceptual Mitigation Plan.</p>
Soils	Yes	Yes	Suitable soils from project disturbance areas would be salvaged for use in reclamation; however, there would be an irretrievable commitment of soil resources in mine disturbance areas until successful reclamation is completed. There would be an irreversible commitment of 182.5 acres of native non-hydric soils to hydric soils associated with wetland compensatory mitigation.

Table 3.18-1 Irreversible and Irretrievable Commitment of Resources by the Proposed Action

Resource	Irreversible Impacts	Irretrievable Impacts	Description
Vegetation	Yes	Yes	A total of 14,392 acres of disturbance would comprise an irretrievable commitment of vegetation resources during project operations; this acreage subsequently would be revegetated. There would be an irreversible commitment of 182.5 acres of upland vegetation to wetland vegetation associated with wetland compensatory mitigation.
Fish and Wildlife Resources	Yes	Yes	There would be an irretrievable loss of 35.6 acres of intermittent/ ephemeral stream, 5.4 acres of perennial stream, 48.3 acres of pond habitat as a result of mining. A total of up to 14,392 acres of wildlife habitat would be incrementally lost during mining operations, an irretrievable commitment of this resource. This land would be reclaimed subsequent to mining. There would be an irreversible commitment of 182.5 acres of upland habitat to wetland habitat associated with wetland compensatory mitigation.
Paleontological Resources	No	No	No irretrievable or irreversible impacts are anticipated to paleontological resources.
Cultural Resources	Yes	Yes	Cultural resources would be irreversibly and irretrievably lost through disturbance; however, significant cultural resources would be mitigated through avoidance or data recovery.
Air Quality	No	No	There would be no irretrievable or irreversible impacts to air quality. Project air quality impacts would not exceed federal or state AAQS. The air quality would return to pre-mining levels after construction, mining, and reclamation activities cease to be sources of pollutants and as vegetation is re-established.
Land Use and Recreation	No	Yes	There would be irretrievable impacts to land use associated with mine construction and operation. Changes in land use generally would be reversible through reclamation efforts in consultation with landowners. There would be no irreversible or irretrievable loss of recreation resources. Major utilities would be rerouted during mine construction and operation; rerouting would be permanent at the discretion of the owner.
Social and Economic Values	No	Yes	Social and economic effects of the Rusk Permit Area would be reversible. The human and material resources invested in the project would be essentially irretrievable.

Table 3.18-1 Irreversible and Irretrievable Commitment of Resources by the Proposed Action

Resource	Irreversible Impacts	Irretrievable Impacts	Description
Transportation	No	Yes	Project-related traffic impacts would continue for the life of the project, but would be reversible and would cease at project closure. Road system modifications would be reversible.
Noise and Visual Resources	No	Yes	Noise effects would be considered reversible, as they would cease on completion and closure of the project. Certain visual effects, particularly removal of mature trees, would persist for a number of years; however, in the long term, the adverse visual effects would be largely obscured by successful reclamation and revegetation.
Hazardous Materials	No	No	No irreversible or irretrievable commitment of resources or impacts is anticipated. However, if a spill were to affect a sensitive resource, an irretrievable impact could occur pending the recovery of the resource.
Public Health	No	No	Adverse public health impacts are not anticipated.
Environmental Justice	No	No	Not applicable.