

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter is divided into the following resource topics:

- Air Resources
- Geology/Paleontology
- Soils
- Groundwater
- Surface Water
- Floodplains
- Land Use and Access
- Grazing Management
- Recreation, Wilderness, and Visual Resources
- Areas of Critical Environmental Concern
- Vegetation
- Wetlands, Riparian Areas, and Waters of the United States
- Fisheries and Wildlife
- Threatened, Endangered, Proposed, and Other Special Status Species
- Cultural Resources
- Socioeconomics and Environmental Justice
- Public Safety and Services
- Noise

The following sections are presented for each resource topic listed above:

Affected Environment – this section succinctly describes the environment of the areas to be affected by the Proposed Action or alternatives. Because resource topics are often interrelated, one section may refer to another. The Affected Environment section includes the following:

Region of Influence – is the area that the Proposed Action or alternatives may reasonably affect. Regions of influence are specific to each resource topic. Limits of regions of influence may be natural features (such as an aquifer boundary), political boundaries (such as Mohave County), or industry-accepted norms for the resource (such as 50 kilometers for one aspect of air quality).

Existing Conditions – characterizes the resource within the region of influence and provides a framework for understanding the effects described in the Environmental Consequences section; the amount of information presented is commensurate with the importance of the effects.

Environmental Consequences – This section objectively evaluates the Proposed Action and reasonable alternatives. It presents a scientific analysis of the direct and indirect environmental impacts and forms the analytic basis for the summary comparison of impacts presented in Section 2.0. Because resource topics are often interrelated, one section may refer to another. Potential impacts for Phases 1 and 2 of the Proposed Action are considered together. The Environmental Consequences section includes the following:

Identification of Issues – presents the issues analyzed, which were identified during the public scoping period for this environmental impact statement (EIS) (refer to Section 6.0), or

by lead or cooperating agency personnel during preparation of this document.

Significance Criteria – indicate thresholds where adverse impacts become significant.

Impact Assessment Methods – briefly describes the manner or means used to accomplish the analysis of impacts.

Actions Incorporated Into the Proposed Action to Reduce or Prevent Environmental Impact – these are actions that Caithness has committed to implementing. Impacts have been assessed assuming these measures would be implemented if the Big Sandy Energy Project were implemented. Actions presented in this section are more fully described in Section 2.2.8.

Impact Assessment – presents the results of the analysis for various components of the Proposed Action and alternatives.

Mitigation – includes appropriate measures not already included in the Proposed Action. The Council on Environmental Quality (1981) states that mitigation measures must be considered even for impacts that would not be considered significant, and where it is feasible to develop them. Mitigation can include things such as: (1) avoiding an impact altogether by not taking a certain action or parts of an action; (2) minimizing impacts by limiting the degree or magnitude of an action and its implementation; (3) rectifying an impact by repairing, rehabilitating, or restoring the affected environment; (4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of an action; or (5) compensating for an impact by replacing or providing substitute resources or environments.

Significance criteria and impact assessment methods were developed in coordination and consultation with the cooperating agencies (refer to Section 1.3.2 for more information on cooperating agencies. Refer to Section 6.0 for

more information on agency consultation and coordination).

Cumulative impacts are discussed in Section 4.0. A description of the Proposed Action and alternatives, including the proposed and alternative gas pipeline corridor segments, is presented in Section 2.0.

<i>Types of Impacts</i>	
Direct Impacts	These are effects that are caused by the action and occur at the same time and place. Examples include the elimination of original land use due to the erection of a structure. Direct impacts may cause indirect impacts, such as ground disturbance resulting in resuspension of dust and decreased visibility.
Indirect Impacts	These are effects that are caused by the action but occur later in time or are farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include related impacts to other resources such as air, water, and fish and wildlife.
Significant Impacts	Both direct and indirect impacts may be significant. “Significant” requires consideration of both the context and intensity of the impact. This means that an action must be analyzed in several contexts – such as the immediate vicinity, affected interests, and the locality. Both short-term and long-term effects are relevant. Intensity refers to the severity of impact. Direct and indirect impacts may be positive (beneficial) or negative (adverse). Compliance with regulatory standards is not necessarily an indication of the significance or severity of an environmental impact.

3.1 AIR RESOURCES

This section describes the affected environment and environmental consequences relative to air resources. The primary factors that determine the air quality of a region are the locations of air pollution sources, the type and magnitude of pollutant emissions, and the local meteorological