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2.0 SITE CHARACTERIZATION

2.1 Site Location and Layout

The Permit Area comprises approximately 4,220 acres, remotely located on public land. Within the Permit Area, 3,580 acres are federally owned and administered by the BLM (see **Section 2.2.1**); 640 acres are owned by the State of Wyoming and administered by the Wyoming Office of State Lands and Investments. The Permit Area consists of 199 unpatented federal lode claims and one state lease. It includes portions or the entirety of Sections 13 and 23 to 26 of Township 25 North, Range 93 West, and Sections 16 to 21 and 29 to 31 of Township 25 North, Range 92 West, and is located entirely in Sweetwater County, Wyoming.

The topography, existing roads, power lines and political boundaries within the Permit Area are shown in [Figure 1.3-1](#). The map includes the surrounding two miles, pursuant to guidance from NUREG 1569 (NRC, 2003) regarding the study area for site location and layout. The base layer for most figures in this document is either a mosaic of Digital Raster Graphic drawings, 7.5 minute quad maps from the United States Geological Survey (USGS), or an orthophoto mosaic for Sweetwater County, Wyoming, originating from the US Department of Agriculture, Natural Resources Conservation Service (NRCS). Additional Geographic Information System (GIS) data layers in this document were created by the US Census Bureau, US Census Bureau with enhancements by ESRI and TeleAtlas, BLM, Wyoming Game and Fish Department (WGFD), Spatial Data and Visualization Center of Laramie, Wyoming, and Munn & Arneson (1998 and 1999).

The drainages within the two-mile review area are entirely ephemeral; there is no perennial surface water present. The site elevation ranges from approximately 6,790 to 7,050 feet above mean sea level. As such, there are no notable geographic features within the review area. No geologic outcrops are present within the review area; site geology is discussed at length in **Section 2.6** of this document. The site is composed entirely of Big Sagebrush Shrublands, and there are no forested portions of the review area; the ecology of the site is discussed in **Section 2.8** of this document. There are no publicly maintained roads within the Permit Area. The road network in the Permit Area, delineated in [Figure 1.3-1](#) consists entirely of two-track roads, accessible year-round with four-wheel-drive vehicles. There are grazing allotments within the review area, but no farms, residences, or population centers are present. Land use is discussed in **Section 2.2** and population distribution is discussed in **Section 2.3** of this document.

The proposed locations of the Plant, roads, transmission lines, pipelines, mine units and facilities within the Permit Area are shown in [Figure 2.1-1](#). The delineation of the mine

units is preliminary, and may change as additional information becomes available. During production and restoration, each mine unit will be fenced. The area surrounding the Plant will be fenced for security for the duration of the Project. No drainage diversions are currently planned. [Figure 2.1-2](#) shows the regional transportation network and likely site access routes.