

2.3.7 PR-11 Mine Expansion Area Vegetation

Baseline vegetation mapping and plant species reconnaissance was conducted during the summer of 2021 on the approximately 137.08-acre PR-11 Mine Expansion Area. This area is located adjacent to the northwestern boundary of the previously approved Trapper Mine permit area. The vegetation mapping effort was conducted in accordance with Regulations of the Colorado Mined Land Reclamation Board for Coal Mining (effective 8/30/1980, last revised 9/14/2005).

2.3.7.1 Methods for Mapping and Plant Species Identification

Vegetation Mapping. For the PR-11 Mine Expansion Area vegetation sampling effort in 2021 a detailed map was prepared in accordance with Rule 2.04.10(1), which requires that plant communities be delineated based on visually dominant plant species. The vegetation mapping was initially prepared using high resolution aerial photographs taken in the fall of 2017, with minor adjustments to the photographic mapping made based upon extensive experience in the PR-11 Mine Expansion Area. The boundaries of vegetation blocks within the PR-11 Mine Expansion Area were delineated using high definition aerial photographs as the investigator (consultant Forrest Luke) walked the boundaries.

The detailed delineation of the vegetation types found within the PR-11 Mine Expansion Area is shown on Map 48B. This map shows the extent of vegetation types within the proposed mine expansion area. The vegetation boundaries of all lands located within one-half mile of the PR-11 Mine Expansion Area also are shown on this map.

Rare and Endangered Plant Species: The potential presence of rare and endangered plants was determined based upon a careful review of the existing scientific literature. The most comprehensive treatment of this topic is found on the website of the Colorado Natural Heritage Program found at www.cnhp.colostate.edu, which contains the *Colorado Rare Plant Field Guide* published in 1999, and an update called the *Colorado Rare Plant Field Guide - 2002 Update*. These documents were used to determine the presence or absence of rare and endangered plant species during the field survey.

2.3.7.2 2021 Field Work

Fieldwork for the vegetation mapping and species list documentation was conducted between September 6 and September 22, 2021. A total of 115 plant species were identified during the survey. Table 2.3-26, PR-11 Mine Expansion Area - Plant Species List, shows the plant species encountered during field sampling.

The field mapping of the Wetland Plant Community within the PR-11 expansion area occurred during the summer of 2022. The formal wetland delineation, employing USACE protocols and vegetation sampling, was accomplished by GEI Consultants, a certified wetlands contractor.