

## **Reclamation Case Study: Road Decommissioning in Indiana and Pennsylvania Gulches, White River National Forest<sup>1</sup>**

Tony Matthews and Jesse Feedback<sup>2</sup>

**Abstract:** During the falls of 2017 and 2018, roughly three miles of roads and trails were decommissioned within Indiana and Pennsylvania Gulches, White River National Forest, Breckenridge, Colorado. The project was located in high-altitude sub-alpine forest. Various reclamation/rehabilitation techniques were used to blend roads into the surrounding landscape/topography. Creating wildlife habitat, especially for vulnerable species such as the Canada lynx, was another goal. Reclamation involved comprehensive techniques that addressed vegetation, hydrology, soils, and wildlife. Compacted soils were ripped using an excavator and hand broadcasted with a seed mix formulated using a previous vegetation inventory from the site. Roads were recontoured to the original topography and steep areas were covered with geotextile blankets. Alternating rock water bars were installed in stream road crossings to create meanders and attenuate flow velocities. Willow stakes and transplants were used to help restore stream side vegetation and stabilize streambanks. Spruce saplings were planted in the reclaimed roads. Viewshed breaks were created to discourage hikers from walking on reclaimed roads. Observations of 2017 areas are positive and adaptive management was used in 2018, and will be used on future projects, to improve road decommissioning results.<sup>3</sup>

**Additional Key Words:** Rocky Mountains, Revegetation, Erosion Control.

1. Oral paper presented at the 2019 National Meeting of the American Society of Mining and Reclamation, Big Sky, MT. Welcome Back to Montana: The Land of Reclamation Pioneers, June 3 - 7, 2019. Published by ASMR; 1305 Weathervane Dr., Champaign, IL 61821.
2. Tony Matthews, Office Manager, Habitat Management, Inc., Englewood, CO 80112; Jesse Feedback, Staff Scientist, Habitat Management, Inc., Englewood, CO 80112.
3. Work reported here was done near 39.420, -106.003.