RECLAMATION

Mine reclamation is the process of restoring mined land to a natural or economically usable state. Mine reclamation minimizes and moderates the effects of mining on the environment during and after the mining process.

Mining begins with the end in mind. In this regard, the preparation and planning of mine reclamation activities begin prior to a mine being permitted and before active mining is started. Mine reclamation creates useful landscapes that meet a variety of needs. In the U.S., and many other countries, mine reclamation is a highly regulated part of modern mining practices.

Reclamation activities include regulating active mines, reclaiming lands affected by surface and underground mining and abandoned mines (previous mining) and providing resources for technical assistance, training and technology development. Together, local, state and federal regulation and legislation dictate the environmental standards that mines must follow while operating, and achieve when reclaiming mined land, in order to minimize environmental impact.

Photo provided by Friends of Coal

Effective land reclamation requires monitoring of slope stability, erosion and restoration of productive ecosystems.

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ENVIRONMENTAL ENGINEER

Environmental Engineers who work in the mining industry are degreeed, and often certified, professionals who apply math, science and engineering principles to the design, construction and operation of economical and efficient systems to reclaim mine sites. They are trained in soil science, biology, hydrology, geology, chemistry, forestry, agriculture or landscape architecture to ensure Earth’s ecological systems are protected. They keep mine managers informed of new laws and regulations that can affect the mine’s operation and reclamation alternatives. They monitor the land disturbances as well as air, surface and groundwater quality at the mine to meet or exceed local, state and federal standards.

Environmental Engineers working in the mining industry can work outdoors, taking measurements and samples, or indoors, conducting tests and analyzing data.

For more information on the importance of mined minerals in everyday life, visit www.MineralsEducationCoalition.org.