

Chapter 16 Section 3 Notes

The Environmental Impacts of Mining

- Air and Noise Pollution
 - caused by surface mining
- Water Contamination
 - acid mine drainage – contaminated water that results when acid dissolves toxic minerals remaining in mines and in excess rocks
 - sulfuric acid is a water contaminant that can cause acid mine drainage
 - dredging causes muddy sediments which can contaminate a river
- Displacement of Wildlife
- Erosion and Sedimentation
 - dumps – large piles of excess rock from mines
- Soil Degradation
- Subsidence – the sinking of regions of the ground with little or no horizontal movement
 - can result from the collapse of pillars in abandoned mines
- Underground Mine Fires – one of the most serious consequences of coal mining

Mining Regulation and Reclamation

- Reclamation – process of returning land to its original or better condition after mining
 - Surface Mining Control and Reclamation Act of 1977 – a law that set standards to minimize the surface effects of coal mining on the environment
 - Comprehensive Response Compensation and Liability Act – a law that regulates the release of hazardous substances into the air, soil, and water by mining operations
- Mining companies must follow these regulations:
 - the Clean Water Act
 - the Safe Drinking Water Act
 - the Endangered Species Act
- Before mining a site, a mining company must obtain permits from state and federal agencies, comply with federal regulations, and obtain bonding (bond – funds posted before a mining project begins)