

10 Mineral Resources Element

Mining has played a strong role in the economic and employment history of Garrett County. The County's two main mineral resources are coal and natural gas, each produced for fuel. Non-coal mineral resources such as limestone and sandstone are also mined.

Mining jobs remain a small, but not insignificant, portion of Garrett County's economy, accounting for approximately 350 jobs (see the Chapter 11, the Economic Development Element).

10.1 Goals

The mineral resources goal of this Comprehensive Plan is to:

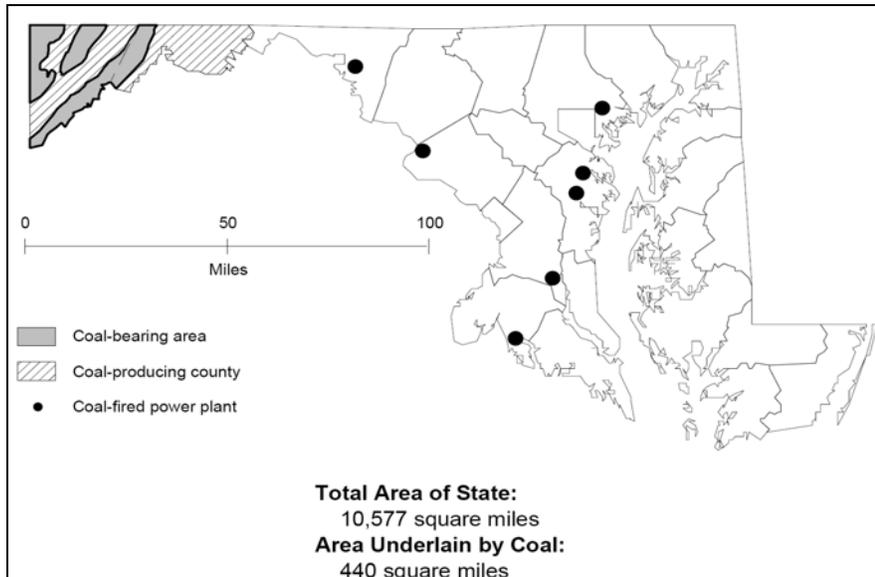
Promote responsible surface and underground mining of Garrett County's resources in compliance with strict standards for preventing environmental pollution and reclaiming the mined land to productive reuse.

10.2 Description of Mineral Resources

10.2.1 Coal Production

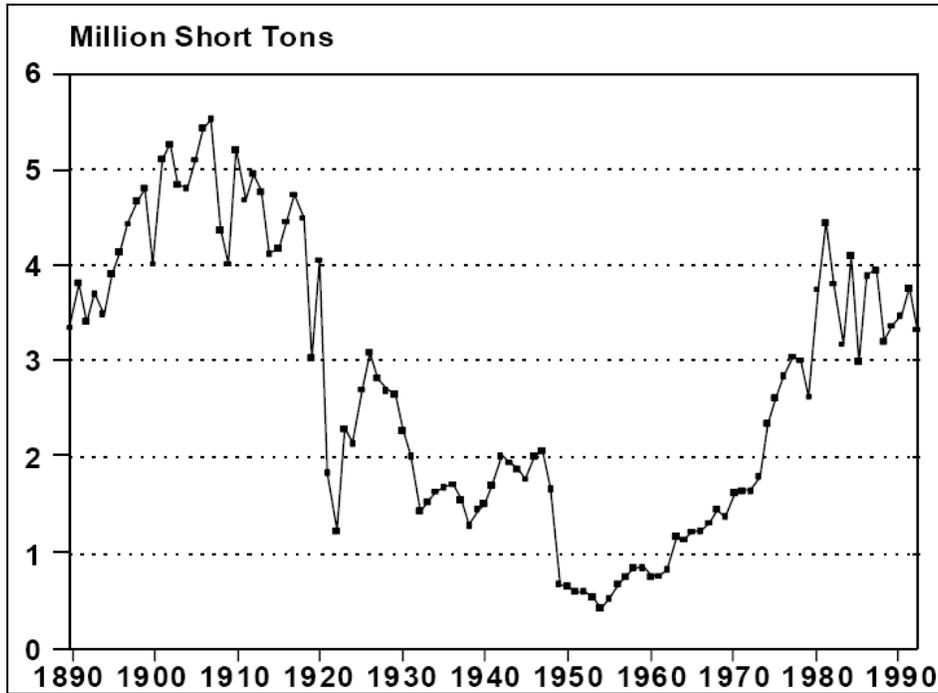
Coal is mined in both Garrett and Allegany Counties in western Maryland (Figure 10.1). The state's coal production peaked around 1905 with about 5.5 million tons of coal mined. Statewide coal production decreased sharply in the 1920s, when slightly over one million tons was mined, but has leveled off. Since 1975, annual coal production in Maryland has ranged between approximately three and four million tons per year (Figure 10.2). Garrett County is the largest coal producer in Maryland, with over 4 million tons mined in 2006, 77 percent of the State's total production (Table 10.1).

Figure 10.1 Maryland's Coal Producing Counties



Source: US Department of Energy, State Coal Profiles, 1992

Figure 10.2 Coal Production in Maryland: 1890-1990



Source: US Department of Energy, State Coal Profiles, 1992
 Note: Chart data beyond 1992 were not provided in the original source material.

Table 10.1: 2006 Coal Production

Mining Method	Tons		
	Maryland	Garrett County	% of State Total
Strip	2,356,855	1,186,569	50%
Deep	2,839,591	2,839,591	100%
Total	5,196,446	4,026,160	77%

Source: 2006 Annual Report of the MD Bureau of Mines

As of 2007 there were two deep mines and 14 strip mines on 250 acres of land in Garrett County. The County is the sole deep mine coal producer in the State and provides 50 percent of the State’s strip mined coal (Table 10.1).

10.2.2 Natural Gas Production

Garrett and Allegany Counties are the only natural gas producing counties in Maryland. In 2006, six natural gas production wells were operational in Maryland in, producing approximately 12.8 billion cubic feet (bcf) of natural gas. In addition, natural gas from production sites in the Gulf Coast region is temporarily stored in geologic formations in the Accident natural gas field, for use in the northeastern United States during high-demand periods.

Natural gas production in the state has been steadily declining since it peaked in the 1950s.

Garrett County’s natural gas resources are shown in Figure 10.3.

10.2.3 Non-Coal Mineral Production

Non-coal mineral deposits in Garrett County include limestone, dimension stone, sandstone, industrial sand, and clay. Approximately 520,000 tons of non-coal minerals were mined in Garrett County in 2006 (Table 10.2).

As of 2007, there were three limestone and two sandstone quarries in Garrett County. While quarrying non-fuel minerals produces only a small portion of the State’s overall product, it still provides the County with both economic and employment benefits.

Table 10.2: 2006 Non-Coal Mineral Production

Type of Stone	Tons		
	Maryland	Garrett County	% of State Total
Dimension stone	32,184	14,000	43%
Crushed and broken limestone	22,053,787	389,000	2%
Crushed and broken dimension stone	3,474,329	95,000	3%
Industrial sand	21,100	20,000	95%
Clay	48,530	1,800	4%
Total	25,629,930	519,800	2%

Source: Maryland Department of the Environment

10.3 Discussion of Issues

10.3.1 Abandoned Mine Land Reclamation

While mining in Garrett County provides economic and employment benefits, it has also left the County with environmental and aesthetic issues to address. Acid water discharge, gob piles (waste coal and rock), dangerous highwalls, erosion, and other environmental disruptions were frequent byproducts of surface mining. The 1977 Federal Surface Mining Control and Reclamation Act established new standards for surface mining, and has led to the reclamation of many acres of abandoned strip mines.

In order to address the environmental and aesthetic damages caused by mining, the State of Maryland enacted its Abandoned Mine Land (AML) Reclamation Program in 1982 (supplanting the federal program based on the 1977 legislation). The state Program’s main purpose is to address environmental problems which have damaged land and water, with the overall goal of returning unused and environmentally unstable land to some form of passive use.

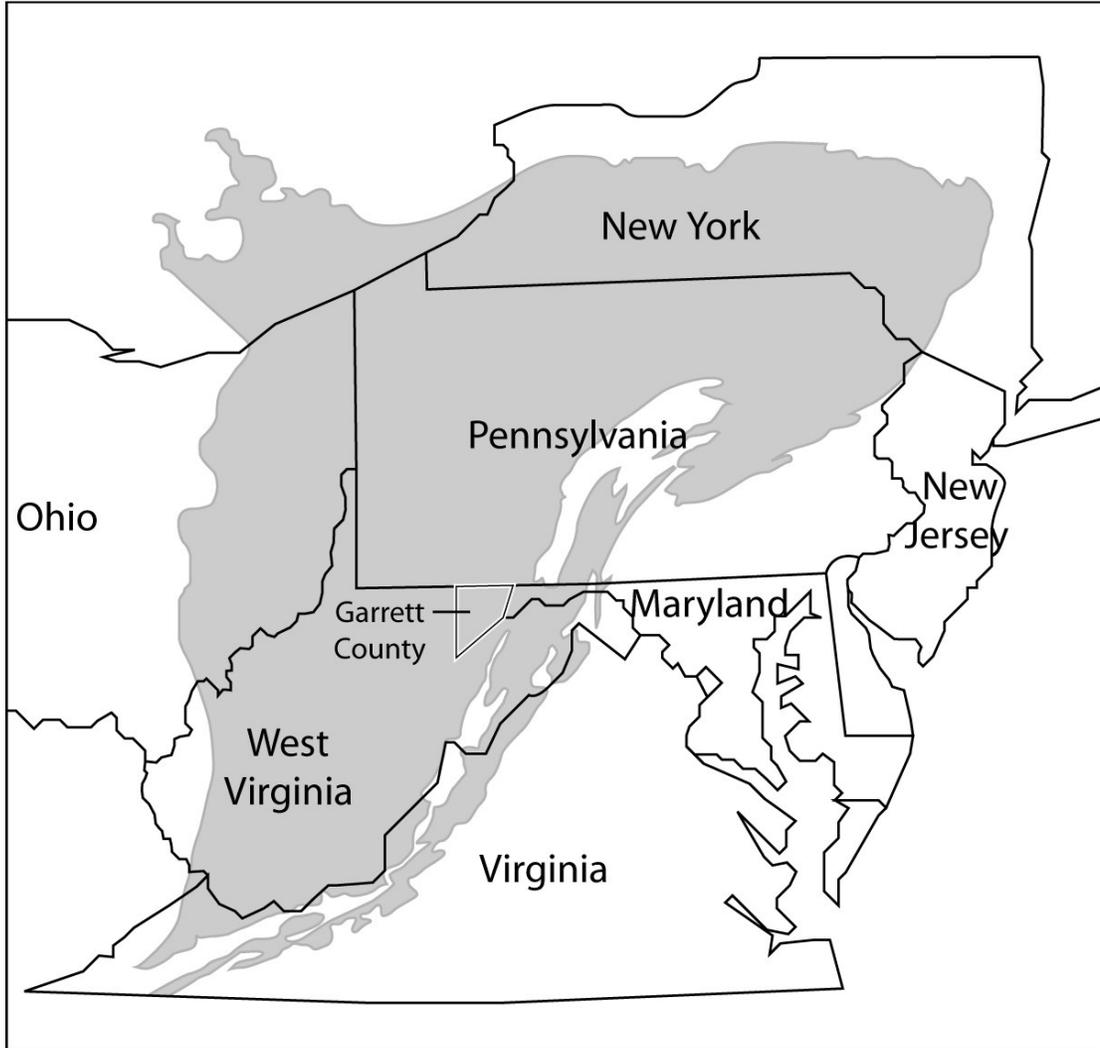
In particular, the AML Reclamation Program addresses abandoned mine drainage upstream of water supply intakes, highwalls and pits near roads, and potential landslides. Since 1975, the AML Reclamation Program has reclaimed 960 acres of previously unusable mine land in Garrett County. Land uses on reclaimed land typically include hunting, fishing, recreation, timber production, and agriculture; reclamation can also be associated with an increase in nearby land value.

10.3.2 Natural Gas Production

Natural gas production in Garrett County is likely to increase significantly over the life of this plan. Garrett County sits atop a geological layer known as the Marcellus Shale (see Figure 10.3), which has long been known to contain significant amounts of natural gas. The recent development of directional drilling and rock fracturing processes allow that gas to be

recovered in a cost-effective manner. The combination of reduced production costs and high national energy demand (particularly from sources other than coal or petroleum) have spurred considerable interest in natural gas production in Garrett County, and have dramatically increased the value of property owners' mineral rights.

Figure 10.3 Marcellus Shale (Approximate Extent)



Source: Adapted from USGS. 2005. *Assessment of Undiscovered Natural Gas Resources, Appalachian Basin*

Natural gas production can benefit the County and its residents in a number of ways. Property owners receive lease payments, royalties, and free gas from energy companies to heat homes in exchange for natural gas drilling rights.¹ This money, along with money spent by gas drilling and related contractors, can help to boost the County's economy. Natural gas is also considered a more environmentally friendly energy source than coal or petroleum products.

Natural gas drilling can also have negative impacts. In particular, the fluid byproducts of the drilling process contain a number of contaminants. If not properly contained and disposed of,

¹ Source: Baltimore Sun, September 14, 2008.

these fluids can pose threats to water quality and nearby habitat. In addition, drilling activity can generate noise and heavy truck traffic. Contractors and other workers associated with drilling operations can also generate demands on County services, as well as demand for lodging.

MDE is responsible for monitoring and enforcing environmental regulations related to natural gas drilling. The County—particularly the Health Department and Department of Planning and Land Development—should work with MDE to closely monitor such activity to ensure that it does not adversely impact water resources and sensitive environmental areas. The County Roads department should also work with SHA and energy companies to ensure that roads are safe and adequate to support the vehicle traffic associated with drilling activities.

10.4 Policies and Actions

1. Support responsible mining of Garrett County's mineral resources.
2. Support the reclamation activities of the Maryland Abandoned Mine Reclamation Program to bring environmentally problematic land back to a useable state.
3. Work with MDE, SHA, other state agencies, and energy companies to monitor natural gas development activities to ensure the safety of the ground and surface water supplies, to protect sensitive environmental areas, to address the socioeconomic impacts of natural gas drilling, and to ensure the safety and adequacy of roads to accommodate natural gas drilling activities.

