Chapter 13: Mineral Resources

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Chapter 13

Mineral Resources

Goals and Objectives

13.1 Support the extraction and processing of mineral resources and related operations while safeguarding the public health and welfare and the environment by minimizing possible negative impacts resulting from extraction and transportation to the maximum extent practicable.

Background

Sand and gravel are Charles County’s major mineral resources. There are no known deposits of coal, building stone, precious ores, or base metals. Upland deposits consist of thin layers of sand and gravel, which can be found across much of the County. Lowland deposits consist of river-bottom sediments and several levels of sand and gravel terraces flanking the Potomac, Port Tobacco and Wicomico Rivers as well as Zekiah Swamp Run. These terraces represent various elevations of the rivers and were likely controlled by sea level at the time of their formation. The sediments which make up the terraces were, in part, derived from erosion of the upland deposits.

Planning Tools and Regulatory Controls

At the State level, surface mining is regulated under the Environment Article of the Annotated Code of Maryland. This law is administered by the Maryland Department of the Environment’s Minerals, Oil and Gas Division (Division). Any person or entity intending to mine sand and gravel must first obtain a Surface Mining Permit from the Division. These permits require posting a bond, allowing opportunity for public comment, ensuring public safety, controlling environmental impact, and having an approved reclamation or site stabilization plan. Mineral extraction operations are also designed to contain stormwater and sediment to the mining site. The Division reviews permit applications, conducts site inspections, and determines which applications meet the requirements. Upon completion of the mining operation, the site must be reclaimed in accordance with Division laws and regulations.
At the local level, surface and sub-surface mining for sand and gravel or drilling wells for oil, natural gas and petroleum, are regulated in Charles County through the Zoning Ordinance, to the extent not preempted by State law. Mining is permitted by special exception in most zoning districts, except for some residential and commercial districts. Wet processing can be performed in conjunction with surface mining. A request for special exception must be filed with the Board of Appeals. The Board then reviews the request to determine if the proposed use conforms to all requirements of the Zoning Ordinance. As part of the special exception request, the applicant must submit a noise study, cultural resource information, traffic and road conditions report and a site plan of the operation showing proposed buffers and screening, along with any other pertinent information.

The St. Charles Planned Unit Development (PUD) is regulated under the applicable St. Charles Master Plan. The entire zone, including surface mining, is not regulated by the Board of Appeals; instead the Maryland Department of the Environment regulates surface mining through their permit issuance and inspection process. The Charles County Critical Area Program contains specific goals and objectives regarding mining in the Critical Area. The Critical Area Overlay Zone, in the Zoning Ordinance, contains requirements over and above those required by the special exception process.

Extraction operations generate sizable amounts of heavy truck traffic, which tend to be a key concern of County residents. The Board of Appeals often addresses this issue by limiting the number of truck loads per day, hours of operation, and haul routes.

**Existing and Closed Surface Mines**

Surface mining for sand and gravel has predominately occurred in three regions of the County. Those regions include (1) areas south and east of Waldorf and White Plains, including the St. Charles PUD, (2) the central portion of the west side of the County including areas of Welcome, Ironsides and McConchie and (3) the east-central portion of the County that adjoins St. Mary’s County. These three regions will likely continue to supply significant sand and gravel resources for the next decade (See Figure 13-1).
Availability and Supply

Sand and gravel resources are widely distributed across the County, making them readily available. Between 2014 and 2017, the Surface Mining Division of the Maryland Department of the Environment reported that 1.5 million tons of sand and gravel was mined annually in Charles County. The County’s rural zoning districts, Priority Preservation Area and Tier 4 designated lands act to stabilize the land base and protect the mineral resources allowing much of the land to remain in an undeveloped state. These rural area land use designations and zones account for more than half of the County’s land area. This helps ensure a continuous supply of materials into the future.
Post-Excavation Uses

The State’s Surface Mining Permit requires an approved reclamation or site stabilization plan. In Charles County, post-excavation uses have ranged from residential development to reclamation back to agricultural or forestry uses. The Amish community often reclaims areas of surface mining back to productive agricultural use by working closely with the mining company to reserve top soil and place materials back on site in a way conducive to crop production.

Reclamation often involves the use of treated sewage sludge, otherwise known as biosolids, to return necessary nutrients and organic matter back to the soil to help establish vegetation. The use and application of biosolids is also regulated and permitted by the Maryland Department of the Environment.

Other post-excavation uses include future park areas, often planned for various types of ball fields and similar active recreation uses. One example includes 216 acres acquired by the County in 2008 located off Poplar Hill Road. This property, known as Waldorf Park, is planned for future active recreation uses.

Policies and Actions

Mineral Resources

13.1 Recognize and consider property owners’ right to extract mineral resources.
13.2 Balance mineral resource extraction with other land uses.
13.3 Maintain an available supply of mineral resources.
13.4 Encourage efforts to reclaim and repurpose former mine sites into new productive land uses, including alternative energy systems.
13.5 Minimize impacts to existing neighborhoods from extraction operations, including truck traffic and noise.
13.6 Protect the natural environment from all sources of pollution resulting from mineral extraction.
13.7 Provide adequate regulation and monitoring to all mineral extraction operations, including those in the PUD (St. Charles).
13.8 Support the industry and related sub-industries as important business sectors in the County.