
3.9 Mineral Resources

This section provides background information regarding mineral resources within the County, the regulations and programs that provide for their protection and development, and an assessment of the potential impacts of implementing the proposed General Plan Update. Existing mineral resource conditions are described in Chapter 7, Mineral and Energy Resources, of the *Natural Resources and Hazards Report*, September 2002 (Appendix D), which includes a discussion of mineral (including sand and gravel) extraction. This report, which is available for review at the Planning Division public counter at 3015 H Street in Eureka during normal business hours or for download at <http://humboldt.gov/571/Background-Reports>, is incorporated herein by reference and summarized below. Where any discrepancies may exist between the referenced material and the material presented here, the material presented here should be considered as the most up to date and is to be relied upon for the environmental setting and analyses.

3.9.1 Mineral Resources - Environmental and Regulatory Setting

Mineral Resources

The public depends on several categories of minerals found in the County for a variety of everyday uses. For example, non-metallic industrial minerals such as sand and gravel are used to make concrete for construction of buildings and asphalt to pave roads. Importing minerals long distances results in a high ratio of transportation cost to the value of the mineral. A common assumption is that the cost of transporting sand and gravel typically doubles for each 35 miles it is transported. But in addition to monetary costs, mineral transport has adverse impacts on the circulation system, as well as impacts related noise and air pollutant emissions. The local availability of mineral resources for local projects helps reduce these impacts. The predominant mining activity in the County is the extraction of aggregate resources (stone, sand, and gravel).

Humboldt County has significant mineral resources. About eighty-five extraction sites around the County produce sand and gravel, metals, stone, and clay. Mining provides an input resource to a number of key activities in the construction industry, primarily the raw materials for concrete used in foundations. Mining materials are also used for road construction, maintenance, and repair. Other important uses include fill materials, snow and ice control, railroad grade ballast, and as a filtration system for onsite sewage disposal systems.

However, Humboldt County is one of 16 counties within California where the State Geologist has not classified the land based on the known or inferred mineral resource potential of that land, pursuant to SMARA classifications. The Mineral Land Classification process identifies lands that contain economically significant mineral deposits. The primary goal of mineral land classification is to ensure that the mineral resource potential of lands is recognized and considered in land use planning. The classification process includes an assessment of the quantity, quality, and extent of aggregate deposits in a study area.

Sand and Gravel. Sand and gravel extraction constitute the major portion of mining activity in the County, both in terms of quantity of material produced and value of extracted resource. The volume of in-stream gravel and sand extracted in 2015 was 272,240 cubic yards, 68 percent of the 400,919 cubic yards approved for extraction. According to Section 7.1, Mineral Extraction of Chapter 7, Mineral and Energy Resources of the Natural Resources and Hazards Technical Report, the majority of gravel and sand extracted activity took place along the Eel River-Van Duzen River complex (76 percent), and the Mad River (22 percent). The remainder was extracted from Willow Creek and the Trinity River.

Gravel extraction requires either an individual permit from the US Army Corps of Engineers covering a single operator, or a Letter of Permission (LOP) covering a group of operators that have not pursued individual permits. Both individual permits and LOPs are discretionary actions by the US Army Corps of Engineers. Because issuing the individual permit or LOP could affect threatened, endangered, or special status species, the Corps will conduct consultation with the National Marine Fisheries Service and/or the US Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act, depending on the species potentially affected. These agencies will then issue Biological Opinions describing their findings related to species effects from the proposed project.

Rock and Metals. Rock extraction sites—mines, pits, and quarries—are located throughout the County. Mines and quarries in Humboldt County primarily produce shale, stone (base and subbase), and clay. General Plan Update Figure 10.1, Rock and Mineral Extraction Sites of the Mineral Resources Chapter of the Conservation and Open Space Elements displays the location of mining sites within the County. Almost all of these, except the clay quarries, are hard rock quarries. Information on extraction totals is considered proprietary. However, there are 32 active hard rock quarries permitted in the County, with a permitted annual potential yield of approximately 660,000 cubic yards per year. Extraction amounts vary depending on local demand. Rock quarries significantly augment the in-stream sand and gravel mining operations in the County. These quarries provide rock products of various sizes that may not be obtainable from in-stream operations or may be able to provide sand and gravel at more competitive rates due to location or reduced permitting expenses. Most recent surface mining applications in the County have been for upland rock quarry operations due to these factors.

Local Regulation. To address state, federal, and County permitting requirements in a coordinated manner and to implement mitigations required in program environmental impact reports for in-stream gravel mining, the County established the County of Humboldt Extraction Review Team (CHERT) through the adoption of Resolution 96-37. The CHERT consists of four members appointed by the Humboldt County Board of Supervisors with expertise in hydrology, fluvial geomorphology, fisheries, and river ecology. CHERT members serve as agents of the County for the purpose of providing technical expertise and reviews of mining proposals for in-stream gravel operations within the County.

All activities of CHERT are performed in accordance with the provisions of the Public Resources Code, Division 2, Chapter 9, Section 2774 and requirements of the California Government Code governing conflicts of interest, including Section 87100 et seq. CHERT prepares a post-extraction information report on the previous season's mining activities that is available to the public and provides recommendations for extraction quantities and methods, disturbance minimization measures, and potential mitigations. The CHERT is also concerned with possible adverse impacts to infrastructure such as levees, bridges, and the water district facilities. The Corps of Engineers and the California Department of Fish and Wildlife also makes use of the CHERT review process for assessing gravel extraction effects, including impacts to listed salmonids and designated critical habitat.

Surface mining is not specifically identified as a primary and compatible use in the Framework General Plan or inland Zoning Regulations, except for the Rural Residential Agriculture Zone where Surface Mining is identified as a conditional use type. However, during the review of mineral extraction projects, the County has found surface mining to be a compatible temporary use. Humboldt County Ordinance 2117 implements the provisions of the Surface Mining and Reclamation Act of 1975 (Public Resources Code Sections 2710 and following, hereafter SMARA) and establishes county-wide surface mining regulations. These regulations are intended to protect the quality of the County's environment, limit land uses that would be incompatible with preservation and use of natural resources, and to assure the community of adequate supply of these resources for present and future generations. A conditional use permit and reclamation plan and adherence to development standards is required for surface mining operations. These regulations apply to all surface mining throughout the County.

In the 1980s and early 1990s numerous surface mining conditional use permits were issued with a permit term of fifteen years, subject to renewal. More recently, a number of these permits have come up for renewal, and through the renewal notification and hearing process it has become apparent that there are more concerned neighboring property owners than existed at the time of initial permit issuance. In one instance, approximately 72% of parcels adjacent to an active extraction operation or haul route changed ownership since the initial permit issuance. A number of these ownership changes represent the sale of vacant parcels that were later developed for residential uses. The new residents consider the mining operations incompatible with residential uses. This issue has brought to the forefront the need to address compatibility of surface mining operations with adjacent uses, and the need to advise potential future property owners of existing mining operations.

3.9.2 Mineral Resources - Standards of Significance

This analysis uses the significance criteria from the CEQA Guidelines Appendix G. The proposed General Plan Update would result in a significant impact on mineral resources if it would:

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Items "a" and "b" are discussed in Impact 3.9.3.1, Loss of Known Mineral Resources.

3.9.3 Mineral Resources - Impacts and Mitigation Measures

Impact 3.9.3.1: Loss of Known Mineral Resources

Implementation of the General Plan could include land use map changes or policies that would result in the loss of availability of a known mineral resource of value to the region and the residents of the state or the loss of a mineral site delineated in the local general plan, specific plan or other land use plan.

This impact analysis addresses items "a" and "b" of the significance criteria described in 3.9.2. Section 2531.2 of the current General Plan identifies sand, gravel, and quarry sites that will be reviewed when processing permits to avoid land use incompatibilities. Permitted mineral extraction sites within the unincorporated County are generally identified in General Plan

Update Figure 10.1, Rock and Mineral Extraction Sites, of the Mineral Resources Chapter of the Conservation and Open Space Elements. There are 146 Assessor's Parcels mapped as part of the current County SMARA geographic information system database. This database provides information regarding the extraction site location, mine identification number, operator, number of the County issued permit, and some information regarding the activities at the site.

However, not all areas of Humboldt County have been comprehensively investigated by the state or the County for the purpose of identifying potential mineral deposits. Development consistent with the General Plan Update could occur in locations where the presence or extent of an important mineral resource has not been clearly delineated and access to those minerals could be restricted or eliminated due to development.

Analysis of Relevant General Plan Update Policies

The General Plan Update Conservation and Open Space Elements Mineral Resources Chapter contains policies, such as Policy MR-P1, Production and Conservation, which encourages the production and conservation of minerals, while preserving to the maximum extent feasible environmental resource values. Policy MR-P3, Identify Mineral Deposits, directs the County to maintain an inventory of the County's mineral deposits and mining sites. This policy, in combination with Policy MR-P8, Future Development Planning, would help ensure that incompatible uses are not planned adjacent to mineral extraction sites and that future development will not interfere with the utilization of identified mineral deposits. Implementation Measure MR-IM2, Mapping of Mineral Deposits and Mine Sites, requires that the County maintain GIS maps of the County's known mineral deposits and mining sites; however, this mapping requirement does not include unknown mineral deposits (i.e. there is no requirement to search for and map unknown deposits).

Standard MR-S3, Permitted Land Use Designations, specifies that mining operations subject to SMARA are conditionally permitted in all land use and zoning designations. This standard would resolve any current ambiguities regarding the inland zoning districts within which aggregate extraction or surface mining is permitted. Further, Standard MR-S5, Forest and Agricultural Borrow Pits, specifies that, subject to the issuance of a grading permit (if required by County Code), borrow pits to support farming activities, and timber road construction and maintenance operations, are a principally permitted use when operated within SMARA exemption parameters and the activity is otherwise consistent with the Conservation and Open Space chapter of the General Plan Update.

The General Plan Update includes additional policies intended to protect existing mining sites. Policy MR-P2, Right to Mine, requires that discretionary projects in the vicinity of vested and permitted surface mining extraction sites or along existing haul routes record a notice of the right to mine against the property for which a discretionary permit is sought. This notice advises current and future owners that the existing mining operations have a permitted right to continued mining operations. Implementation Measure, MR-P9, Location of Mineral Haul Routes, directs the design of mineral haul routes to avoid incompatible areas, when feasible. MR-IM4, Combining Zone, directs the County to establish a mineral resources (MR) combining zone to facilitate implementation of the County's regulations for surface mining, conservation, and reclamation. This measure is intended to ensure compatibility of adjacent uses and would apply the combining zone to parcels with permitted surface mining operations. It also provides for notification to parcels within 1,000 feet of permitted surface mining extraction sites and along existing haul routes.

Conclusion

The General Plan Update seeks to identify mineral resources within the County as well as support their conservation, development, and utilization. These objectives are achieved through the implementation of policies that require the identification and inventory of mineral deposits and mining sites and that protect the right to mine. In addition to mapping mineral deposits and mining sites, policies and programs in the General Plan Update provide for notification to surrounding uses around mining operations in order to avoid issues relating to land use compatibility. The implementation of the policies and programs identified above and compliance with applicable surface mining and reclamation laws will limit the potential for loss of significant mineral resources. Therefore, this impact would be would be **less than significant**.

Mitigation

None required.