New Mexico Mining Association Mine Permitting in New Mexico

Presentation to Surface Water Advisory Panel

October 2, 2024

Presentation Overview

New Mexico's Mining Industry

Mineral Production is Vital

National and New Mexico Mine Permitting Challenges

Existing Mine Permitting Requirements

- New Mexico Mining Act and Rules
- Surface Mining Act and Rules
- Federal and State Public Lands
- Water Quality Act and Water Quality Control Commission Rules

Conclusion

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New Mexico's Mining Industry

2022 total production value over $1.9 billion, direct employment of over 4200 statewide

- Potash (Eddy County): 1st in national production; $61MM annual payrol
- Copper (Grant County): 6th in national production; $96MM annual payroll
- Coal (San Juan, McKinley Counties): 13th in national production; $77MM annual payroll
- Aggregates (sand and gravel): $43MM annual payroll
- Industrial minerals (perlite, zeolite): $8MM payroll
- Other minerals produced: gold, silver, molybdenum, humate
- Other mineral deposits: uranium (2nd nationally in reserves), lithium, rare earth elements, other critical minerals

Sources Energy, Minerals and Natural Resources Department 2023 Annual Report: https://www.emnrd.nm.gov/officeofsecretary/wp-content/uploads/sites/2/emnrd-report-annual-2023-web.pdf; https://geoinfo.nmt.edu/resources/minerals/impact.html

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Mineral Production from Mining is Vital

Energy:

- Coal and uranium for electric power generation
- Copper, silver, rare earths for electrical transmission, wind and solar generation, electric vehicles and equipment
- Lithium, vanadium, nickel, cobalt, graphite, manganese for batteries and energy storage
- According to the World Bank and others, mineral production will have to dramatically increase to meet decarbonization goals.

Link to World Bank Group: https://pubdocs.worldbank.org/en/961711588875536384/Minerals-for-Climate-Action-The-Mineral-Intensity-of-the-Clean-Energy-Transition.pdf

Agriculture:

- Potash is an essential nutrient (phosphates also mined, but not in NM)
- Humate mined in NM is a valuable soil amendment

Manufacturing and Construction:

- Metals, including iron and others for steel, copper
- Aggregates, limestone, clay, shale (for Portland Cement)

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Mine Permitting Timeframes Inhibit Needed Growth in Mineral Production

- Standard & Poors recently reported that average lead time from discovery of a mineral resources to a producing mine will be around 18 years for mines started in 2020-2023
- According to the National Mining Association, the permitting phase alone is seven to ten years
- Current New Mexico experience shows even longer permitting timeframes
  - Copper Flat Project: permitting started in 2010 and is not complete

SI027RN Copper Flat Mine - Mining and Minerals (nm.gov)

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Mine Permitting in New Mexico

- New Mexico Mining Act and Rules
  - Exploration—minimal impact, regular
  - Mining—minimal impact, existing mines, new mines
- Surface Mining Act
  - Coal mines subject to federal Surface Mining Control and Reclamation Act
- Water Quality Act
  - Ground Water Discharge Permits
- Clean Water Act
  - NPDES
  - Section 404 dredged and fill material discharges
- Air Quality Control Act
- Mining on Public Lands
  - Mineral leasing and lease terms (Coal, Potash)
  - BLM and Forest Service Rules
  - NEPA
- State Engineer Dam Safety Program (includes tailings dams)
- Other Laws: cultural resources protection; threatened and endangered species and other wildlife protections; water rights

Surface Mining Act and Rules (Coal)

- Surface Mining Act and Rules
  - Follows federal SMCRA Model: "one stop permitting" approach
  - Already protects surface waters:
    - Surface waters impacted by mining or to which mine may drain identified in permit application, along with studies of hydrologic and water quality impacts;
    - Plans showing measures to be taken to protect surface and ground water systems and to minimize disturbance of hydrologic regime; and
  - Public Participation
    - Public notice of applications and opportunity for review, comment and request for public hearing
    - Public notice of public hearings and permit actions

Surface Mining Act and Rules (Cont'd)

- Avoid or minimize impacts
  - Compliance with surface water quality standards
  - Minimize impacts to hydrologic balance
  - Regulation of diversions of surface waters before they enter a mine
  - Avoidance or minimization of impacts to wetlands and riparian areas
- Permit issued only on finding that mining will not materially damage the quantity or quality of water.
- Reclamation to restore lands to approximate original contour, support postmine land use, and protect hydrologic balance
  - Detailed reclamation plans reviewed by agencies

Because of SMCRA requirements, coal mines are exempt from ground water discharge permit requirements under Water Quality Act—20.6.2.3105(K) NMAC

New Mexico Mining Act and Rules

- Mining operations may impact surface waters
  - Must mine where mineral deposit is located
  - Economic mineral deposits are rare
- Potentially impacted surface waters identified in permit applications
  - Minimal Impact Operations: 19.10.3.302 (exploration) and 19.10.3.303 and .304 NMAC (mining)
  - Exploration: 19.10.4.402 NMAC
  - New mining operations: 19.10.6.602 NMAC (includes baseline data collection plan)
- Surface waters impact analysis required
  - Exploration: 19.10.4.406 NMAC
  - Existing mining operations permit modifications: 19.10.5.505 and .508 NMAC
  - New mining operations: 19.10.6.602
- Applications sent to NMED, including surface water quality bureau, for comments
  - NMED determines compliance with applicable water quality requirements: 19.10.5.508 and 19.10.6.606

New Mexico Mining Act and Rules (Cont'd)

- Public Participation
  - Public notice of applications and opportunity for review, comment and request for public hearing
  - Public notice of public hearings and permit actions
- Avoid or minimize impacts
  - Compliance with surface water quality standards
  - Minimize impacts to hydrologic balance
  - Regulation of diversions of surface waters before they enter a mine
  - Avoidance of or minimization of impacts to wetlands and riparian areas
- Reclamation to restore surface waters impacted by mining
  - Detailed plans reviewed by agencies

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Water Quality Act

- Notice of Intent to Discharge: 20.6.2.1201 NMAC
  - Applies to “water contaminant discharge” (new or alteration)
- Release reporting and corrective action: 20.6.2.1203 NMAC
- Ground water discharge permit program: 20.6.2.3101 to -3114 NMAC
  - Applies to discharges of ground water that may affect gaining stream
  - Permit conditions often address surface water discharges, including monitoring and prohibitions on certain discharges to surface waters
  - Supplemental rules for copper mines: 20.6.7 NMAC
- Ground and surface water abatement rules: 20.6.4101 to -4113 NMAC

Conclusions

- The New Mexico mining industry is already overburdened with permitting requirements that affect the industries' ability to supply vital and critical minerals.
- As to NPDES primacy, regulation of mines should be consistent with existing federal requirements.
- There are few, if any, existing gaps in surface water protection for mines under New Mexico law due to existing permitting requirements.
  - There is no need for any separate surface water permit requirement for mines, either for point source or "dredged and fill material" discharges.
  - Gaps in surface water protection, if any, should be addressed through required ground water discharge permits; separate process would be wasteful and unduly burdensome.
- The existing exemption for permitted coal mines should apply to any new state surface water permit program.
- NMMA will have other comments on NPDES primacy and the proposed surface water permit program.