
Natives Impacted by Mining

EPA Perspectives

U.S. Environmental Protection Agency,
Region 9, San Francisco

Jeanne Geselbracht (CED-2)

U.S. Environmental Protection Agency

75 Hawthorne Street

San Francisco, CA 94105

415-972-3853

geselbracht.jeanne@epa.gov

Questions:

- Are mining impacts beneficial or adverse to Native American Communities?
- What types of solutions can reduce impact or encourage communication?

NEPA - Our basic national charter for environmental protection

Purposes include:

Promote prevention or elimination of damage to environment

Stimulate human health and welfare

Enrich understanding of natural resources and ecosystems

EIS & Public Disclosure

CEQ Regulations:

- Environmental information must be available to public before decisions are made and actions are taken.
- Information must be of high quality.
- Accurate scientific analysis, expert agency comments, and public scrutiny are essential.

[40 CFR 1500.1(b)]

Mining Projects in Nevada: EPA Perspectives

■ EIS Issues

- Geochemical characterization
- Financial assurance
- Adaptive management plans
- Climate change
- Renewable energy
- Mercury emissions & controls

Geochemical Characterization

Agencies must insure the professional integrity, including scientific integrity, of the discussions and analyses in their EISs.

[CEQ Regs at 40 CFR 1502.25]

Geochemical Characterization

Accurately characterize geochemistry at the Draft EIS stage.

- Decreases risk of prolonging NEPA process resulting from need for more data or major project revisions.
- Helps determine appropriate, protective management alternatives and appropriate financial assurance.

Financial Assurance

EIS should describe:

- Reclamation Bonding
- Long-Term Post-Closure Trust Funds

Financial Assurance: Long-Term Trust Fund

EIS should include:

- Itemized cost estimate for long-term monitoring, construction, operations & maintenance.
- Meaningful assurances funds will be available as long as needed.

Adaptive Management Plans

- Can be useful in managing for uncertainties over long term (e.g., whether groundwater pumping will overdraft aquifer).
- Should not be used in lieu of rigorous analysis and predictions at EIS stage (kicking can down the road).
- Specify monitoring, management, and mitigation requirements.

Adaptive Management Plans

Plan should include:

- Firmly established monitoring and reporting protocols
- Specific action criteria/triggers
- Detailed mitigation measures
- Management requirements and decision tree
- Identity of technical advisors and decision-makers
- Financial assurance for entire plan, including contingencies
- How plan and financial assurance can be modified based on findings and needs

Climate Change

EIS should address:

- Project's contributions to GHG emissions and climate change
- Impacts of climate change on the project
- Cumulative climate change impacts on resources also affected by the project

Climate Change

EIS should address project's GHG and climate change contributions:

- Climate change initiatives, GHG reduction goals and strategies
- Regional/local resources experiencing effects of climate change (e.g. watershed supply, pica range, increased fires)
- Quantify direct and indirect GHG emissions
- Meaningful context for interpreting GHG emissions -- EPA's GHG equivalency calculator at:
<http://www.epa.gov/cleanenergy/energy-resources/calculator.html>)
- Project impacts on CO₂ sinks and changes in land albedo
- Are GHG emission sources new, redistributed, or replaced?
- Adaptation strategies and potential mitigation measures

Climate Change

EIS should address impacts of climate change on the project:

- Identify and discuss need for adaptation strategies (e.g., need for better ET covers on waste rock if climate would get wetter).

Climate Change

EIS should address ***cumulative*** climate change impacts on resources also affected by the project:

- Groundwater recovery - shorter or longer recovery times
- Spring and stream flows - lower or higher predicted flows
- Riparian vegetation - reduced or expanded riparian areas
- Wildlife habitat/corridors – changes in habitat extent and timing of behavior

Renewable Energy Projects

- EPA working with Federal land managers to find appropriate brownfields and other sites for renewable energy projects.
- Closed mines may be good candidates.
 - Existing power transmission infrastructure
 - Not pristine
 - Much already known about affected resources

Mercury Emissions and Controls

- EPA HQ developing national Clean Air Act Maximum Achievable Control Technology (MACT) standard to control mercury from gold mines.
- CAA requires EPA to issue MACT standards for 7 persistent and bioaccumulative hazardous air pollutants, including mercury.
- Gold mines currently sixth highest mercury source in U.S. -- 2.5 tons per year.
- NDEP's Nevada Mercury Control Program.
- EPA to propose Gold Mine MACT standard by 12/09.