

BDR 46-590 AB 313(R1)

UNSOLICITED EXECUTIVE AGENCY FISCAL NOTE

AGENCY'S ESTIMATES

Date Prepared: May 11, 2023

Agency Submitting: State Department of Conservation and Natural Resources, Division of Environmental Protection

Items of Revenue or Expense, or Both	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Effect on Future Biennia
Personnel Services (Expense)		\$177,290	\$237,022	\$474,044
In-State Travel (Expense)		\$5,192	\$5,192	\$10,384
Operating (Expense)		\$5,625	\$6,547	\$13,094
Equipment (Expense)		\$10,462		
Indirect Cost (Expense)		\$39,004	\$52,145	\$104,290
Information Services (Expense)		\$7,033	\$1,628	\$3,256
Contracted Economic Consultant (Expense)		\$600,000	\$520,000	\$1,040,000
Total	0	\$844,606	\$822,534	\$1,645,068

Explanation

(Use Additional Sheets of Attachments, if required)

AB313 (as amended) requires existing or new mines to revise or submit a plan for reclamation that includes pit lake backfill when an existing or new open pit mine will be excavated below the pre-mining water table. The bill allows mine operators to apply for limited technical and economic exemptions under various evidentiary standards and requires the Division to make a determination as to whether the application for exemption satisfies the burden of production and proof necessary to receive an exemption under the relevant standards.

The Nevada Division of Environmental Protection is charged with regulating the mining industry from exploration and operation through reclamation and closure. As introduced, this bill will have a fiscal impact on the Division. The attached agency explanation details the need for two new positions, an Environmental Scientist III and a Registered Professional Engineer, as well as a contracted economic consultant. See Exhibit 1 for the full Agency explanation.

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FIRST AMENDMENT TO DESCRIPTION OF FISCAL EFFECT

AB 313/BDR 46-590

Nevada Division of Environmental Protection (NDEP)

The effective date of AB 313 (the Bill), as amended, is October 1, 2023, except for the exemption provided for in Section 4(1)(a), which is effective on January 1, 2025.

NDEP Review and Basis for Estimating the Fiscal Effect:

Section 4(1) of the Bill, as amended, states that “if an open pit will be excavated below the pre-mining water table, a plan for reclamation must, except as otherwise provided in subsection 2, provide for the backfilling of the open pit to a level where no pit lake will form and no seasonal or permanent wetland will exist.” Section 4, Subsection 1 appears to continue to apply to all mines (new and existing), but not to mines that already have an open pit excavated below the pre-mining water table. Subsection 2 authorizes the operator to apply for an exemption to this requirement if (a) for applications “to engage in a mining operation” (which NDEP interprets to be new mining operations), filed after January 1, 2025, the operator demonstrates by clear and convincing evidence that backfilling the open pit is “technically not possible without indefinite long-term management to avoid groundwater degradation;” or (b) for exemption applications filed after the effective date of the Bill, the operator demonstrates by a preponderance of the evidence, “that backfilling the open pit would result in undue hardship on the operator because the plan for the mining operation would be unprofitable.” For applications in Subsection 2(b) it appears that the application for an exemption applies to both new and existing mines in Subsection 1; likewise, for purposes of this fiscal evaluation, NDEP assumes the regulated universe to continue to be both new and existing mines.

The Bill, as amended, still requires the Division to hold at least one public hearing concerning an application for an exemption, increases the scope of mining reclamation in NRS Chapter 519A through addition of the term “groundwater” to legislative findings that “proper reclamation is necessary to prevent undesirable land, surface water *[and groundwater]* conditions detrimental to the ecology and to the general health, welfare, safety and property rights of the residents of this state,” and proposes to include numerous additions of “surface water and groundwater” to NRS Chapter 519A.

BMRR Program Baseline

The NDEP Bureau of Mining Regulation and Reclamation (BMRR) has four technical Branches that work in concert.

- The Regulation Branch has responsibility for protecting waters of the State under the Water Pollution Control Law (WPCL) codified in NRS 445A.300 through 445A.730 and administered under NAC 445A.350 through 445A.447. The Branch issues Water Pollution Control Permits (WPCP) to an operator prior to the construction of any mining, milling, or other beneficiation process activity. The

Regulation Branch maintains 154 permitted facilities; when staffed to currently authorized levels, each technical FTE position in the Regulation Branch averages 39 permits. The current total of 180 permitted facilities in Regulation and Closure is expected to increase to 195 by 2025.

- The Closure Branch also has the responsibility of protecting waters of the State under the WPCL and regulations cited above. This branch works with facilities at the cessation of operations to ensure that all components, including Waters of the State, are left chemically stable for the long term. The Closure Branch maintains 26 permitted facilities and staff workload averages 13 permits each.
- The Reclamation Branch regulates exploration and mining operations in Nevada on both private and public lands under “the Reclamation of Land . . .” statutes codified in NRS 519A.010 through NRS 519A.280 and administered under NAC 519A.010 through NAC 519A.415. The branch issues permits to exploration and mining operations (affecting over 5 acres) to reclaim the disturbance and return the land to a safe and stable condition consistent with its intended post-mining land use. The Reclamation Branch also receives and manages financial sureties, which ensure (e.g., bonding) reclamation is completed. The Reclamation Branch maintains 275 permitted facilities and this figure is projected to increase to 300 by 2025. When staffed to currently authorized levels, each technical FTE position averages 55 permitted facilities.
- The Hydrology Branch supports BMRR’s permitting, reclamation, and closure functions by performing pit lake modeling, hydrogeochemical studies, and other services.

The BMRR program is 100% fee funded by the mining industry. No federal grants or general funds are received.

An important part of the permitting process is the public notice requirements and the right for anyone to request a public hearing on a draft permit or appeal any permit to the State Environmental Commission. Historically, BMRR receives very few appeals of its permit actions; however, pit lake water quality modeling has resulted in one recent appeal and generated significant public interest and debate warranting workshops and public hearings and, in all, resulting in significant consumption of BMRR staff time and resources. The Bill, as amended, is expected to increase demand on BMRR staff time and resources, which justifies the need for additional staffing.

The science of pit lake predictive modeling is constantly evolving. In 2016, BMRR created a hydrologist/modeler position for evaluating pit lakes and hydrological and geochemical predictive models. The hydrologist position has become a critical component in the regulation and reclamation application review process, with project workload exceeding current staffing. Adding a second hydrologist/geochemist would increase the level of service necessary to implement the Bill.

The Bill, as amended, would also require BMRR to evaluate plans for pit lake backfill for all open pits that will excavate below the pre-mining water table. In addition to evaluating and making decisions about the technical aspects of pit backfilling, the Bill also requires BMRR to make determinations about whether backfilling would render a mining project “unprofitable” and, therefore, result in an undue hardship to the operator. BMRR does not have an allocated position to assist with this purely economic determination.

Estimated Fiscal Effect:

BMRR reviewed the Bill, as amended, and has determined that there will be a fiscal impact to all four BMRR branches: Regulation, Closure, Hydrology, and Reclamation.

In accordance with existing law in NRS 445A, water pollution control permits renew every 5 years and affect both the Regulation Branch permits for active mines, and Closure Branch permits for inactive mines that have performed reclamation and are moving toward permanent closure. Reclamation permits are not renewed on a schedule but are affected by major modifications to mine operations plans and are also evaluated every 3 years to re-calculate the financial security (e.g., bond) in place for reclamation using the Nevada Standard Reclamation Cost Estimator (SRCE).

As of March 2023, BMRR records indicate there are 87 open pits at 54 mines sites throughout Nevada, not including placer operations. Nearly all these pits are situated on public land (i.e., Bureau of Land Management and US Forest Service) with small portions shared by private landowners. BMRR estimates that the Bill, as amended, could require approximately 13 mines in FY 2023-2024, 11 mines in FY 2024-2025, and 22 mines in future biennia to revise reclamation plans to incorporate open pit backfilling. BMRR also estimates that the Bill, as amended, may require approximately 2 new mines in FY 2023-2024, 2 new mines in FY 2024-2025, and 4 new mines in future biennia to submit reclamation plans that include open pit backfilling. BMRR assumes that all of these mines will apply for an exemption to open pit backfilling based on mine profitability.

Description of Fiscal Effect

The Bill, as amended, would no longer require BMRR to retroactively apply pit lake backfilling requirements to mine pits that are currently excavated below the pre-mining water table. However, as of the effective date, the Bill, as amended, requires all reclamation plans for mine pits that will be excavated below the pre-mining water table include backfilling and allows operators to apply for an exemption based on unprofitability. The Bill, as amended, also allows new mine project applicants to apply for a backfilling exemption due to technical impossibility, starting in 2025.

As stated above, BMRR estimates that the Bill, as amended, may require approximately 15 mines (13 existing and 2 new) in FY 2023-2024, 13 mines (11 existing and 2 new) in FY 2024-2025, and 26 mines (22 existing and 4 new) in future biennia to submit reclamation plans which incorporate open pit backfilling. These submittals will generate significant additional work and will increase permit review time and project backlog without additional professional technical staff. . For this reason, BMRR anticipates the

continued need to hire two (2) new FTEs: a Professional Engineer (SE III) position to address the increased Regulation Branch permitting workload and an additional ES III Hydrologist position to coordinate with and support the other BMRR branches with modeling activities as previously described herein.

The new Professional Engineer position will address the increased workload related to reviewing and permitting new or revised mine operation plans. This has not changed since the Bill was first submitted. The ES III Hydrologist/Geochemist position will work in concert with the current Hydrologist in the technical review of submitted mine pit lake studies, site characterization geochemistry, groundwater hydrology, and validity of predictive modeling results to demonstrate that the backfill will not adversely affect pit lake water quality and degrade Waters of the State. These positions will also require expertise in the calculation of the volume of rock required to eliminate the pit lake's surface expression plus the additional volume of material to address any seasonal fluctuations, and the mineral quality of the backfill material with respect to groundwater protection.

In addition, the Bill, as amended, requires BMRR to make determinations about mine profitability, which is a decision that is not currently within BMRR's jurisdiction under NRS Chapters 445A and 519A. For this reason, BMRR does not have a staff position allocated for a determination such as this. BMRR is not certain that it would be practical to secure a new FTE for profitability evaluations given that individuals with professional expertise and skills to make determinations about mine profitability are in demand and command salaries commensurate with that demand. For this reason, BMRR would need to contract with a professional skilled in making mine profitability determinations. Based on an inquiry with another State agency which hires similar types of consultants for industrial economic analyses, NDEP believes that a qualified economic consultant could charge up to \$250.00 per hour.

Feasibility/profitability studies are extremely detailed documents used to determine whether a mine project should proceed. These studies form the basis for obtaining financing and provide the necessary budget information for the project. Based on professional experience and knowledge, these detailed studies require a significant amount of formal engineering work, are generally accurate to within 10-15%, and can cost between ½-1½% of the total estimated project cost. A typical time frame from study initiation to study completion is anywhere from 60 to 90 days and potentially longer for more complex sites. As part of its exemption application, NDEP believes that the mining industry would submit a similar work product, which accounts for the additional cost of open pit backfill.

Given the complexity of this analysis, NDEP estimates that it would take an economic consultant up to 120 hours to review this information and develop a decision document, which NDEP may use as part of its exemption determination. NDEP believes additional time could be spent reviewing requests for reconsideration due to changed circumstances, such as commodity price fluctuations and increases in operational costs, as well as defending NDEP exemption decisions if appealed to the State Environmental

Commission. These additional tasks could require at least 40 additional hours of consultant time. Therefore, NDEP believes 160 hours is a conservative estimate of time a consultant could potentially expend per mine, or \$40,000.00 (160 hours multiplied by \$250 per hour). Based on these estimates, the total expenditure for a consultant would be \$600,000 for FY 2023-2024 (\$40,000.00 multiplied by 15 mines), \$520,000 for FY 2024-2025 (\$40,000.00 multiplied by 13 mines), and \$1,040,000 for future biennia (\$40,000.00 multiplied by 26 mines).

Because BMRR is funded by fees from the mining industry, BMRR anticipates that it will need to adopt regulation revisions to increase its fees to fund the additional positions and economic consultant.