

Millcreek City Council

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October 9, 2024

Sent via email: jpgersons@utah.gov
John Persons
Engineer
Utah Department of Environmental Quality
P.O. Box 144820
Salt Lake City, UT 84114-4820

**Subject: Comments of Millcreek
Granite's Responses to Utah DAQ Requests for Information, DAQE-
NN161200001A-24
New I-80 Aggregate Mining Facility**

Dear Mr. Persons:

Millcreek, a Utah municipality, submits the following comments to the Department of Environmental Quality, Division of Air Quality (DAQ), on Granite's responses to DAQ's Requests for Information relate to the above-referenced Intent to Approve an air quality Approval Order (AO) for an aggregate mining, crushing and screening facility known as the I-80 South Quarry to be operated by Granite Construction Company (Granite Construction) on the south side of I-80 in Parleys Canyon.

Millcreek is a municipality in Salt Lake County with more than 63,000 residents. Millcreek borders Parleys Canyon, and many Millcreek residents live in the Canyon Rim neighborhood, an area on the south side of the rim of Parleys Canyon. These residents and their properties have been adversely impacted by fugitive dust emissions emanating from the existing rock quarry mining operations (Kilgore Quarry) located on the north side of I-80, across from the site of the new I-80 South Quarry.¹ A study recently traced fugitive dust transported from the existing quarry onto properties in Millcreek.² These fugitive dusts pose a threat to the health, safety, and general welfare of Millcreek residents and adversely affect air quality and properties in

¹ Utah Division of Oil Gas & Mining, *Mineral Permit Files Permit S0350055 Millcreek's Objection to NOI to Commence Small Mining Operations of Granite Construction Company*, Exhibit A—Mayor's Declaration (June 27, 2022), <https://ut-dnr-ogm-prod-sf-public-bucket.s3.amazonaws.com/5635881.pdf>.

² Kyle Brennan, *Pilot Study on Tracing Fugitive Dust Using from the Parleys Canyon Kilgore Quarry, Utah.*, HYDROSHARE (June 21, 2023), <https://www.hydroshare.org/resource/9554c54518534035a085fb7079fca5fa/> (concluding that "approximately 60.35% of the dust sample collected from the Canyon Rim neighborhood is attributable to the Kilgore Quarry").

Millcreek. The new aggregate mining facility proposed in proximity to Millcreek's municipal boundary will likely cause similar impacts and harms.³

Accordingly, Millcreek previously submitted comments to DAQ's Intent to Approve the I-80 South Quarry. *See* Comments of Millcreek, July 27, 2023, attached as Exhibit A. Those prior comments incorporated and adopted Technical Comments prepared by Dr. Ranajit (Ron) Sahu (submitted as Appendix 1 to Exhibit A) and detailed several reasons the proposed AO should not be issued.

Millcreek now submits these comments to the additional information that Granite Construction provided to DAQ in response to DAQ's Requests for Information and in Granite Construction's July 9, 2024, letter (together, the Response). Millcreek adopts and incorporates Dr. Sahu's Second Technical Comments, attached as Exhibit B, and asks that the DAQ respond to the requests identified in Dr. Sahu's comments and take the requested actions identified in this letter. Millcreek remains concerned that the proposed AO and Project File will not adequately control potential fugitive emissions from the new I-80 South Quarry and do not meet the existing standards required for approval. In addition, Millcreek raises several concerns related to the reliability of the data that forms the basis for Granite Construction's Response.

1. Granite Construction's Revised Modeling Shows That the Approval Order Would Cause a Violation of PM10 NAAQS and That Additional Modeling Is Necessary.

Millcreek and others previously commented that Granite Construction's modeling was flawed, in part because the meteorological data within Parleys Canyon differs significantly from the data at the Salt Lake City airport. Presumably in response to these comments, Granite submitted—and the DAQ published for comment—prognostic meteorological data using AERMOD modelling and Weather Research and Forecasting data. While this effort to use data proximate to the proposed site is appreciated, the findings highlight significant issues that call into question the Intent to Approve.

The new modeling demonstrates that reducing the grid resolution to more closely align with the proposed location has a notable impact: when the new modeling is considered, the proposed annual tonnage must be reduced to comply with the NAAQS for PM10. In response to the findings, Granite Construction has reduced the proposed annual tonnage to 875,000 and 900,000 TPY for Phase 1 and 2 Operations. However, these adjustments still result in fence line concentrations that are alarmingly close to the NAAQS—99% for Phase 1 and 97% for Phase 2.

Despite this information, DAQ has not amended its Intent to Approve. Thus, it is not clear whether DAQ intends to stand by the Intent to Approve, which will result in noncompliance with the NAAQS for PM10, or whether DAQ intends to move forward with an amended Intent to Approve, incorporating Granite Construction's proposed reduction in annual tonnage without an

³ Utah Division of Oil Gas & Mining, *supra* note 1, at Exhibit A.

opportunity for public comment on an amended Intent to Approve. Neither of these options are appropriate.

Furthermore, and as detailed in Dr. Sahu’s report, the new modeling demonstrates that even further refinement is needed to determine whether the findings of the modeling—resulting in Granite Construction’s proposed TPY reduction—are sufficiently robust. The validation of the new model with Salt Lake City wind speed data shows that the model’s “pseudo-meteorological predictions are very inaccurate and subject to large errors at the SLC airport. We have no confidence, given these results, that the WRF model as currently used is providing useful or accurate data for use in AERMOD at the far more complex mine site.” *See* Dr. Sahu report.

The technical memorandum attached to Granite Construction’s July 9, 2024, letter emphasizes that “[i]t is essential that the selected . . . WRF modelling grid resolution should resolve the complex terrain induced mountain – valley airflow features, which would be impossible using a coarse-resolution WRF modelling . . . grid.” However, WRF modeling could be done at a spatial resolution of 444 meters, and “the 444 meter resolution is warranted given the complex topography at the mine site itself, which is not resolved well at the 1.33 km spatial scale.” Dr. Sahu report. This change in resolution would likely improve the SLC validation and would also “likely result in additional throughput reductions in order to avoid further NAAQS violations.”

Meteorological data more proximate to the proposed location is publicly available.⁴ DAQ should also require Granite Construction to provide WRF predictions using such meteorological data sets located in or near the proposed site, as these data will be more representative than those at the airport.

Requested Actions:

- A. DAQ should withdraw its Intent to Approve and should not issue the proposed AO.
- B. DAQ should require Granite Construction to re-model using a spatial resolution of 444 meters.
- C. DAQ should require Granite Construction to re-model using meteorological data more proximate to the proposed site.

2. DAQ Should Not Act Until Granite Construction Demonstrates Its Ability to Make Water Available on Site to Meet Opacity Standards.

In the DAQ’s Request for Information, Granite Construction was specifically requested to provide “information on how much water the applicant can bring to the site or make available at the site to meet the opacity standards.” Granite Construction responded with an objection to the request. Similarly, in responding to Request for Information #6, Granite Construction merely points to its “response to RFI #4” in relation to how it will control dust “using water sprays, hoods, dust collectors or other controls. . . .”

⁴ *See* WeatherFlow-Tempest, Inc., Wind Alert, available at <https://windalert.com/map#40.753,-111.534,11,1>.

The Response fails to demonstrate that Granite Construction is prepared to rely upon water to meet opacity standards or that doing so is feasible. DAQ's requiring such information is within the scope of its jurisdiction. *See* Utah Admin. Code R307-401-8(1)(a), (5) (requiring best available control technology before any approval order may be issued).

If water is brought to the site for use as a control technology, rather than available on-site, this could create a perverse incentive to further limit such water use. Millcreek previously commented that the Requirements and Limitations in the Intent to Approve are flawed and largely unverifiable, in part because monitoring and enforcement is placed on the owner/operator. This self-monitoring, coupled with the lack of information about how Granite Construction will make water available on-site, demonstrates the need for DAQ to monitor and enforce the requirements and limitations.

Requested Actions:

- A. DAQ should not issue the proposed AO or take other action until Granite Construction has provided information documenting that it has a sufficient source of water, how it will make water available on-site, and how doing so is feasible.
- B. DAQ should commit to monitoring and enforcement of requirements and limitations either in addition to or instead of placing such responsibility on the owner/operator.

3. More Information Is Needed to Determine Cost Effectiveness of Control Technologies.

As further detailed in Dr. Sahu's report, there are several deficiencies in Granite Construction's Response regarding the cost effectiveness of various control technologies.

First, while Granite Construction did include various vendor quotes, it failed to include the assumption upon which those quotes were based. Such information is necessary to understand the accuracy and applicability of the quotes.

Second, the equipment life expectancy appears to be artificially low. For example, Granite Construction assumes a three-year equipment life expectancy for Aggregate Processing Equipment Enclosure. This short life expectancy assumes that Granite Construction will have to completely replace all such equipment every three years, driving up the annualized costs of such control technology. The Response states that the reason for the short life expectancy is because of "the quarry's progressive nature." However, there is not sufficient information in the Response to demonstrate why this progressive nature would require some equipment to be used for three years while other equipment is used for five, or why equipment (or some portion thereof) could not be moved in three years rather than being completely replaced every three years.

Third, the Response assumes an interest rate of 7.5% without justification. Such interest rate has an obvious impact on the cost of control technologies and DAQ should require Granite Construction to provide support for this assumption.

Finally, the Response includes assumptions about control efficiencies of control technologies without sufficient justification. For example, the Response includes an assumption about the control efficiency for water application on disturbed land and an assumption of the particular suction capacity to control particulate matter from drilling. Where the Response asserts particular assumptions without sufficient basis, DAQ should require Granite Construction to provide the bases for such assumptions.

Requested Actions:

- A. DAQ should obtain the complete records of discussions between Granite Construction and the enclosure vendors.
- B. DAQ should require Granite Construction to calculate cost effectiveness with fully supported data about the useful life of equipment, interest rate assumptions, and control efficiencies.

4. Clarity About the Mine Location Is Necessary.

The additional information fails to specify the property boundary and fails to define Phases 1 and 2. Such information should be provided to DAQ and to the public. The topography of the entire property is highly variable and includes steep slopes. Granite Construction's new modeling required a decrease in output for both Phase 1 and Phase 2. However, because the record does not clearly define those phases and their precise locations, it is not possible to adequately comment on the accuracy of the assumptions, modeling, and responses as applied to any specific location.

Clarity about the mine location is also required to ensure compliance with fugitive dust regulations. "[O]pacity caused by fugitive dust shall not exceed: (a) 10% at the property boundary." Utah Admin. Code R307-309-5(1). Thus, the specific boundaries at issue must be defined in order to enforce any permit. In order to ensure compliance with this regulation, DAQ should provide further clarity about the exact location of the proposed operations.

Requested Actions:

- A. DAQ should define Phases 1 and 2.
- B. DAQ should clearly define the location of the property boundary.

5. DAQ Should Analyze PM_{2.5} Under the Revised NAAQS.

Granite Construction has not provided modeling for PM_{2.5} or stated a reason for failing to do so. In February of 2024, the NAAQS for PM_{2.5} were revised downwards.⁵ Yet the revised modeling relied upon by Granite Construction was solely focused on PM₁₀ and did not consider PM_{2.5}. As

⁵ EPA, National Ambient Air Quality Standards (NAAQS) for PM, available at <https://www.epa.gov/pm-pollution/national-ambient-air-quality-standards-naaqs-pm> (last visited October 8, 2024).

Dr. Sahu recommends, “PM_{2.5} from the plant and cumulative sources should be modeled for the revised annual NAAQS as well as the current short-term 24-hour average NAAQS.”

Requested Actions:

- A. DAQ should model PM_{2.5} under the revised NAAQS.

Millcreek values DAQ’s consideration of the comments above and appreciates the opportunity for public comment and engagement throughout this process. As detailed above, DAQ should withdraw its Intent to Approve and not approve the AO as proposed, should require Granite Construction to provide the additional information outlined above, and should provide additional opportunity for public comment on any amended Intent to Approve.

Sincerely,



Mayor Jeff Silvestrini

Exhibit A

Millcreek City Council

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Silvia Catten, District 1
Thom DeSirant, District 2
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July 27, 2023

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**Subject: Comments of Millcreek
 Intent to Approve DAQE-IN161200001-23
 New I-80 Aggregate Mining Facility**

Dear Mr. Persons:

Millcreek, a Utah municipality, submits the following comments to the Department of Environmental Quality, Division of Air Quality (DAQ), on the above-referenced Intent to Approve an air quality Approval Order (AO) for an aggregate mining, crushing and screening facility known as the I-80 South Quarry to be operated by Granite Construction Company (Granite Construction) on the south side of I-80 in Parleys Canyon.

Millcreek is a municipality of more than 63,000 residents located in Salt Lake County. Millcreek borders Parleys Canyon, and many Millcreek residents live in an area on the south side of the rim of Parleys Canyon in the Canyon Rim neighborhood. These residents and their properties have been adversely impacted by fugitive dust emissions emanating from the existing rock quarry mining operations (Kilgore Quarry) located on the north side of I-80 across from the site of the new I-80 South Quarry.¹ In fact, a study recently traced fugitive dust transported from the existing quarry onto properties in Millcreek.² These fugitive dusts adversely affect air quality and

¹ Utah Division of Oil Gas & Mining, *Mineral Permit Files Permit S0350055 Millcreek's Objection to NOI to Commence Small Mining Operations of Granite Construction Company*, Exhibit A—Mayor's Declaration (June 27, 2022), <https://ut-dnr-ogm-prod-sf-public-bucket.s3.amazonaws.com/5635881.pdf>.

² Kyle Brennan, *Pilot Study on Tracing Fugitive Dust Using from the Parleys Canyon Kilgore Quarry, Utah.*, HYDROSHARE (June 21, 2023), <https://www.hydroshare.org/resource/9554c54518534035a085fb7079fca5fa/>

properties in Millcreek and pose a threat to the health, safety, and general welfare of Millcreek residents. The new aggregate mining facility proposed in proximity to Millcreek’s municipal boundary will likely cause similar impacts and harms.³

Millcreek supports efforts of DAQ to safeguard and improve Utah’s air quality. However, the proposed approval of an AO for this Project will not support that mission.

This letter, in combination with the Technical Comments prepared by Dr. Ranajit (Ron) Sahu, contain Millcreek’s comments and requested actions regarding the Intent to Approve the proposed AO for the I-80 South Quarry and expresses Millcreek’s opposition to the proposed approval. Millcreek adopts Dr. Sahu’s comments and asks that the DAQ respond to the requests identified in Dr. Sahu’s comments and take the requested actions identified in this letter. Millcreek is concerned that the proposed AO and Project File will not adequately control potential fugitive emissions from the new I-80 South Quarry and do not meet the existing standards required for approval. In addition, Millcreek raises several concerns related to the reliability of the data that forms the basis for the Intent to Approve the AO.

The proposed AO should not be issued for the following reasons:

- 1. Effective Control of Fugitive Emissions from Existing and Proposed Mining in Parleys Canyon Requires More Site-Specific Modeling and Analysis of Wind Patterns in the Canyon and Imposition of More Aggressive Emission Controls.**

Fugitive dust emitted or entrained from the existing mining in Parleys Canyon continues to blow from the mouth of the canyon into Millcreek. The new I-80 South Quarry will only add to the fugitive dust emanating from the canyon. Permit limits and controls on the existing mining operation are not effectively controlling fugitive dust. The same types of controls are being proposed in the AO for the new I-80 South Quarry and will not provide effective continual control of fugitive emissions.

The unique dynamics of wind and entrainment of dust from mining operations in Parleys Canyon need to be more fully studied and understood, and more effective fugitive dust controls need to be identified and implemented.

The limits and controls currently in use at the Kilgore Quarry are not adequately controlling fugitive emissions from that operation. For example, on July 15, 2023, at 9:20 a.m., the photo in Figure 1 was taken from I-80, showing dust blowing off the existing Kilgore Quarry.

Figure 1. Dust Blowing Off Kilgore Quarry on July 15, 2023, at 9:20 a.m. Near Mile 131.

(concluding that “approximately 60.35% of the dust sample collected from the Canyon Rim neighborhood is attributable to the Kilgore Quarry”).

³ Utah Division of Oil Gas & Mining, *supra* note 1, at Exhibit A.



Figure 1 demonstrates that fugitive dust continues to blow from an existing quarry just across I-80 from the I-80 South Quarry even when the conditions and sources of data relied upon by DAQ are “not expected to cause windblown dust.”⁴ The National Weather Service—the source identified in the AO to measure wind speed—indicated that the wind speed at 9:20 a.m. on July 15, 2023 (the date and time of the photo in Figure 1) was 7 miles per hour.⁵ However, in the Project File, DAQ stated that “wind speeds for wind erosion are thought to start at 12 MPH, so the 6-10 mph range is not expected to cause windblown dust.”⁶ The wind speed data source relied upon by DAQ combined with DAQ’s assumptions for wind erosion produce modeling that seems to directly contradict observed conditions in the area.

“Any person who owns or operates a mining operation shall minimize fugitive dust as an integral part of site preparation, mining activities, and reclamation operations.” UTAH ADMIN. CODE R307-309-10(2). However, Utah’s regulations for high wind events are inadequate to minimize such dust. DAQ regulations provide an exception whereby opacity standards do not apply when wind speed exceeds 25 miles per hour if the fugitive dust control plan is followed and the owner/operator takes certain contingency measures. UTAH ADMIN. CODE R307-309-5(3). This creates a gap in the regulations when a source is located in an area—like Parleys Canyon—that frequently has high wind speeds. While Utah’s regulations only require “one or more” contingency measures including the option to “[c]ease or reduce fugitive dust producing operations to the extent practicable,” *see* UTAH ADMIN. CODE R307-309-5(3)(d), other states require that dust producing operations cease during high wind events *in addition to other measures*. *See, e.g.,* N.M. CODE R. § 20.11.20.16(A), (C)(5) (requiring all persons responsible for

⁴ Project File at 88.

⁵ National Weather Service, *Salt Lake City, Salt Lake City International Airport*, July 15, 2023, at 9:20 a.m., <https://www.weather.gov/wrh/timeseries?site=kslc>.

⁶ Project File at 88.

fugitive dust control activities to “stop[] active operations that are capable of producing fugitive dust” in addition to implementing other measures during high wind events).

A recent pilot study concluded that much of the dust deposited in the Canyon Rim neighborhood is emanating from the location of the Kilgore Quarry.⁷ The study used Strontium isotope ratios to trace dust transport from Kilgore Quarry to a downcanyon site in the Canyon Rim neighborhood of Millcreek.⁸ To conduct the study, Millcreek staff collected dust from the exterior wall of a utility shed on private property in the neighborhood.⁹ “The University of Utah Geology and Geophysics Department’s ICPMS laboratory conducted the isotope analysis” on the dust samples and bedrock samples that “were collected along I-80 road cuts adjacent to the quarry.”¹⁰ The study found that “the proportion of Kilgore dust in the Canyon Rim sample is estimated to be 60.35%.”¹¹ In addition, the study cited Utah Department of Transportation (UDOT) data “reveal[ing] significant wind speeds, with an average annual occurrence of wind exceeding 25 mph 25% of the time” and “wind speeds above 15 mph were recorded for the majority of the time, occurring 80% annually.”¹² DAQ’s analysis does not address the results of this study, nor does it examine to what extent an additional quarry in roughly the same area within Parleys Canyon with similar types of controls would increase the dust blown into this area of Millcreek.

The observed dust blowing off the existing Kilgore Quarry, study results indicating that the dust present in the Canyon Rim neighborhood in Millcreek is majority Kilgore dust, and UDOT data revealing wind speeds that differ significantly from the National Weather Service data on which DAQ relies together establish the need for more thorough analysis of the conditions in Parleys Canyon and how those conditions relate to fugitive dust. And, based on this further analysis, DAQ should reassess the dust controls proposed in the AO for the I-80 South Quarry.

Requested Actions:

- A. DAQ should conduct a thorough analysis of the conditions in Parleys Canyon, recognizing the unique topography and wind conditions in the area.
- B. The current dust controls in place at Kilgore Quarry and the proposed controls in the AO should be reassessed in light of the observed dust blowing off the Kilgore Quarry, pilot study identifying Kilgore dust in Millcreek, UDOT wind speed data, and further analysis conducted by DAQ.
- C. DAQ should also reassess the current regulatory structure for fugitive dust to ensure that the regulations minimize fugitive dust and include adequate contingency measures for high wind events.

2. The Requirements and Limitations Identified in the Proposed AO Do Not Adequately Ensure Effective, Continual Control of Fugitive Emissions and Compliance with Emission Limits.

⁷ Brennan, *supra* note 2.

⁸ *Id.*

⁹ *Id.* at 2.

¹⁰ *Id.* at 2–3.

¹¹ *Id.* at 3.

¹² *Id.* at 4.

The Requirements and Limitations in the AO¹³ are flawed and largely unverifiable. For example, the owner/operator is charged with “perform[ing] monthly inspections to check that water is flowing to water sprays associated with each crusher, screen, and conveyer.” And, “[i]f the owner/operator finds that water is not flowing properly during an inspection of the water sprays, the owner/operator shall initiate corrective action within 24 hours and complete corrective action as expeditiously as practical.”¹⁴ This fails to address how the owner/operator should respond to water sprays that are observed to not be flowing *outside* of an inspection, seemingly allowing the owner/operator to be willfully blind to such conditions so long as they do not occur during a monthly inspection.

In addition, while the Requirements and Limitations include opacity testing, they fail to clarify when the owner/operator must conduct such testing for intermittent sources, creating an incentive for the owner/operator to do the required opacity testing when the conditions are better and to refrain from doing so when they are worse.

Additional unverifiable assumptions from the Special Conditions are specifically identified in Dr. Sahu’s report.

By placing the monitoring and enforcement mechanism on the owner/operator and allowing the owner/operator to determine when it conducts inspections to comply with the requirements and limitations, DAQ creates an incentive and means whereby the applicant can comply with those requirements and limitations while willfully ignoring conditions that clearly indicate negative impacts on air quality.

Requested Actions:

- A. DAQ should clarify to what extent the owner/operator is responsible for monitoring and enforcement and to what extent DAQ will review and independently confirm the accuracy of the information that the applicant is required to provide to DAQ.
- B. The Intent to Approve should clarify that the owner/operator has continuing obligations that may be triggered outside of the designated inspection periods when observed conditions indicate a need for corrective action.
- C. DAQ should commit to monitoring and enforcement of requirements and limitations either in addition to or instead of placing such responsibility on the owner/operator.

3. The NOI and Proposed AO Do Not Take Into Account the Applicant’s True Intention to Develop a Much Larger Mining Operation and the Extent of Common Ownership or Control of the New I-80 South Quarry and the Existing Kilgore Quarry.

The new I-80 South Quarry is identified as a minor source based on the limited information provided by Granite Construction in its Notice of Intention (NOI). The Division has not done due diligence to determine whether the actual intent of the applicant is to develop a much larger mining operation which would emit much greater quantities of fugitive dust and other air pollutants and potentially implicate permitting requirements for major sources. In fact, there are

¹³ Intent to Approve at 7–13.

¹⁴ Intent to Approve at 9.

many public indications that this is precisely the applicant's intent. The Division should recognize the applicant's true intent to develop a much larger mining operation and deny the NOI on that basis.

The applicant has also made public representations concerning its relationship to the ownership of the existing Kilgore Quarry, which also warrants investigation into the nature and extent of any common ownership or control of the I-80 South Quarry and the Kilgore Quarry.

There are a number of facts that trigger DAQ scrutiny of Granite Construction's true intentions for the scope of its mining operations in Parleys Canyon.

On November 12, 2021, Tree Farm LLC simultaneously filed two Notices of Intent with the Utah Division of Oil, Gas and Mining (DOGGM), seeking both a small mineral permit and a large mineral permit.¹⁵ In its Notice of Intention to Commence Large Mining Operations, Tree Farm LLC identified the total area of disturbance of 634 acres over roughly 100 years.¹⁶ DOGM, on May 23, 2022, permitted Tree Farm to withdraw both Notices of Intent and re-file a small mine NOI.¹⁷ On June 15, 2022, Granite Construction Co. (on behalf of Tree Farm) filed a new small mine NOI.¹⁸ The NOI had the same project location as the prior Small Mine NOI filed by Tree Farm and Tree Farm was listed as the owner of the land surface and minerals. In reviewing the new Small Mine NOI, DOGM stated:

Regardless of Granite and Tree Farms' long-term intentions for this property, the Granite NOI is an application for a small mine permit and, in compliance with the small mine requirements, only seeks to disturb twenty acres. If at some point Granite wished to mine outside those boundaries, it would be required to submit a large mine NOI to the Division and go through the large mine permitting process.¹⁹

But DAQ is not only permitted to consider the "long-term intentions for this property," the EPA guidance and facts and circumstances of this case—including Tree Farm's previous simultaneous filings with DOGM—indicate that DAQ should do so.

¹⁵ Utah Division of Oil Gas & Mining, *Mineral Permit Files: Permit M0350054 Notice of Intention to Commence Large Mining Operations* (Nov. 12, 2021), <https://ut-dnr-ogm-prod-sf-public-bucket.s3.amazonaws.com/5631531.pdf> [hereinafter M0350054 NOI]; Utah Division of Oil Gas & Mining, *Mineral Permit Files Permit S0350053 Notice of Intention to Commence Small Mining Operations* (Nov. 12, 2021), <https://ut-dnr-ogm-prod-sf-public-bucket.s3.amazonaws.com/5631215.pdf>.

¹⁶ M0350054 NOI, *supra* note 15, at 9.

¹⁷ Utah Board of Oil, Gas & Mining, *Combined Order Granting Stipulation and Denying Motion for Policy Guidance 5* (May 23, 2023), <https://ut-dnr-ogm-prod-sf-public-bucket.s3.amazonaws.com/5635324.pdf>.

¹⁸ Utah Division of Oil Gas & Mining, *Mineral Permit Files Permit S0350055 Notice of Intention to Commence Small Mining Operations* (June 15, 2022), <https://ut-dnr-ogm-prod-sf-public-bucket.s3.amazonaws.com/5635875.pdf>.

¹⁹ Utah Division of Oil Gas & Mining, *Mineral Permit Files Permit S035055, Order on Notice of Intention to Commence Small Mining Operations and Objections 12* (Aug. 22, 2022), <https://ut-dnr-ogm-prod-sf-public-bucket.s3.amazonaws.com/5636553.pdf>.

In addition to the simultaneous large and small permits sought from DOGM and stated intentions to develop a large mining operation, there are other facts that trigger scrutiny of the applicant's actual intent.

Public statements made in litigation imply that the I-80 South Quarry is tied to, and perhaps an extension of, the existing Kilgore Quarry. Tree Farm, LLC is currently in litigation with Salt Lake County regarding the applicability of a County zoning ordinance.²⁰ In its Complaint, Tree Farm stated that it “owns or has interest in over 1,000 acres of property in Parley’s Canyon within the Forestry and Recreation Zone.”²¹ Tree Farm also attached two Declarations and Notices of Vested Mining Use stating that “entities owned or controlled by Defendant Sachs acquired the Property with the intent to mine it,” that “[s]ince at least 1993, Declarants have operated as a joint venture regarding such Property,” citing a 1995 “Notice of Intention to Commence Large Mining Operations with respect to a portion of the Property” that was filed “by Rock and Roll Land Company, Inc., as owner, and Harper Contracting, Inc., as operator” and which was approved by DOGM in 1996, and tying Tree Farm, LLC to the mining operations of Rock and Roll Land Company, Inc.²²

Despite Tree Farm’s affirmative public declarations to tie itself to the existing mining operation in Parleys Canyon, Granite Construction in its NOI for the new I-80 South Quarry fails to identify whether or not its proposal is linked in any way to the existing Kilgore Quarry by any common ownership or control, such that, together, they may be considered an aggregated and major source.

Although DOGM granted the Stipulated Motion dismissing the small and large Notices of Intent on May 23, 2022, on July 6, 2022—nearly a month after filing a new Small Mine Notice of Intent—Granite Construction filed a Storm Water Pollution Prevention Plan (SWPPP) for the I-80 South Quarry.²³ In the SWPPP, Granite stated that the SWPPP was “for the 634 acres I-80 South Quarry located in Parley’s Canyon,” far exceeding the 20-acre cap identified in the Intent to Approve.²⁴ The SWPPP identifies a “mining boundary” encompassing 609 acres.²⁵ It stated that the estimated project start date was 4/4/2022 while the estimated project end date was 2/24/2100.²⁶

Because the preconstruction review of a major source is very different from that of a minor source, “it is improper to construct a source with a minor source permit when there is intent to operate as a major source.”²⁷ EPA guidance warns that when “a source attempts to expedite construction by securing minor source status through permits containing operational restrictions from which the source intends to free itself shortly after completion of construction and commencement of operation,” “[s]uch attempts are treated as unlawful circumvention of the

²⁰ *Tree Farm, LLC v. Salt Lake County*, Case No. 220902840 MI (Utah 3d District Court).

²¹ *Tree Farm, LLC v. Salt Lake County*, Case No. 220902840 MI (Utah 3d District Court), Complaint at 4.

²² *Id.* at Exhibits B & C.

²³ SWPPP (July 6, 2022), attached as Exhibit A.

²⁴ Exhibit A at 3.

²⁵ Exhibit A at fig. 2.

²⁶ Exhibit A at Appendix 1.

²⁷ Terrell E. Hunt & John S. Seitz, *Guidance on Limiting Potential to Emit in New Source Permitting*, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 11 (June 13, 1989).

preconstruction review requirements.”²⁸ When improper classification as a minor source is suspected, “EPA enforcement and source personnel should be alerted so details may be worked out in the initial review steps such that a sham permit is not issued.”²⁹

While not an exhaustive list, EPA guidance has clarified that when permitting and enforcement authorities examine potential sham permitting, they should scrutinize: (1) applications that relate to the same process or units that the source files either before initial operation of the unit or after less than a year of operation”; (2) “[a]pplications for commercial loans . . . to see if the source has treated the projects as one modification for financial purposes” and whether “the project would not be funded or if it would not be economically viable if operated on an extended basis . . . without the other projects”; (3) “[r]eports of consumer demand and projected production levels” to determine “[i]f reported levels are necessary to meet projected consumer demand but are higher than permitted levels; (4) “[s]tatements by representatives of the source to EPA or to State or local permitting agencies about the source’s plans for operation” and whether “it is reasonable to expect that company management would coordinate the planning and execution of projects considering their intrinsic relationship with each other (physical proximity, stages of production process, etc.) and their impact on economic viability of the plant.”³⁰

In 2018, the EPA reiterated that what is considered a “project” for aggregation purposes “is a case-by-case decision that is both site-specific and fact-driven” and that such determination is important to preventing sources from “carv[ing] up a higher-emitting project into two or more lower-emitting ‘projects’ and avoid[ing] triggering major NSR requirements.”³¹

There are indications in this case that the applicant seeks to “turn[] the statutory scheme on its head by using federally enforceable minor source permits in a manner inconsistent with the statute and with EPA’s intention” by “improperly obtaining minor status for a new source or modification”³² or by treating as a separate project what is—as argued in the litigation with Salt Lake County—a modification or extension on the existing Kilgore Quarry.

“It is much easier, both in technical and practical terms, to consider the air quality impacts and pollution control requirements of a major new source of air pollution before it has been constructed and has begun operation than after.”³³

The applicant has identified its intent in other contexts to be a much larger mining operation than that which was examined by DAQ and has also indicated in litigation and public declarations

²⁸ John B. Rasnic & George T. Czerniak, *Applicability of New Source Review Circumvention Guidance to 3M – Maplewood, Minnesota*, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 2 (June 23, 1993); *see also* UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, *New Source Review Workshop Manual: Prevention of Significant Deterioration and Nonattainment Area Permitting c.6* (Draft Oct. 1990) [hereinafter *New Source Review Manual*] (“Permits with conditions that do not reflect a source’s *planned* mode of operation may be considered void and cannot shield the source from the requirement to undergo major source preconstruction review.”).

²⁹ *New Source Review Manual*, *supra* note 28, at c.6.

³⁰ Rasnic & Czerniak, *supra* note 28, at 3–4; *see also* 54 Fed. Reg. 27,274, 27,281 (June 28, 1989) (to be codified at 40 C.F.R. pt. 51 and 52) (identifying similar factors).

³¹ 83 Fed. Reg. 57,324, 57,325–26, 57,331 (Nov. 15, 2018).

³² 54 Fed. Reg. 27,274, 27,281 (June 28, 1989).

³³ *Id.*

that there is a relationship between the I-80 South Quarry and the Kilgore Quarry. Thus, additional inquiry and review by DAQ is needed to examine whether the intent of the applicant is to develop an operation that would, either by itself or in combination with the Kilgore Quarry, be considered a major source requiring more thorough preconstruction review.

Requested Actions:

- A. DAQ should not issue the proposed AO.
- B. DAQ should investigate the true intent of the applicant regarding the scope of intended mining operations and relationship of those operations to the existing Kilgore Quarry. Such analysis should include:
 - a. Inquiry of the applicant as to any links to the existing Kilgore Quarry.
 - b. Review of:
 - i. Applicant's statements to DOGM;
 - ii. Applicant's assertions in its litigation with Salt Lake County and connection to the existing quarry in Parleys Canyon;
 - iii. Public statements made by the applicant;
 - iv. Financial documents related to the facility and its funding;
 - v. Consumer demand and projected production levels; and
 - vi. Economic viability of the proposed operation.

4. The Modeling Is So Significantly Flawed That It Cannot Be Properly Relied Upon.

Millcreek adopts and incorporates the Technical Comments prepared by Dr. Sahu and adopts those comments as its own. Millcreek also summarizes some of those comments here as especially pertinent.

First, the project description and definition are not clear. In regard to Phase 2, DAQ does not provide any basis for the assumption that disturbed areas will not grow in size as operations continue. DAQ also assumes a static configuration for Phase 2 air dispersion modeling analysis. And DAQ does not clarify actual production rates.

Second, the Potential-to-Emit emissions inventory for both PM10 and PM2.5 (as well as other pollutants) are grossly deficient. DAQ's emission estimates are, at best, average values, not maximum potential emissions. And reliance on AP-42 is inappropriate for developing PTE emission estimates. In addition, the AP-42 factors relied upon by the applicant and DAQ are often poor. During President Trump's administration, the EPA sent an Enforcement Alert specifically warning against the use of AP-42, as "a permit limit using an AP-42 emission factor would result in half of the sources being in noncompliance" and that "AP-42 emission factors should only be used as a last resort."³⁴

Third, because the emissions inventory are deficient, analysis and conclusions relying on such—including DAQ's determination that the proposed mine will be a minor source—are also deficient.

³⁴ UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, *Enforcement Alert 1–2* (Nov. 2020), <https://www.epa.gov/sites/default/files/2021-01/documents/ap42-enforcementalert.pdf>.

Also because of the deficient emissions inventory, the air dispersion modeling is significantly flawed and unreliable. This modeling uses the emissions inventory as a critical input.

Fifth, the air dispersion modeling suffers other flaws including use of inaccurate meteorological data collected far from the proposed mine site. As identified above in Part 1, the meteorological data within Parleys Canyon differs significantly from the data at the airport. DAQ does not address or explain why reliance on the airport data is justified.

Sixth, DAQ almost exclusively relies on opacity measurements despite the limitations of Method 9 and fails to address how Method 9 is adequate given those limitations.

Seventh, the permit conditions are, in many instances, unverifiable. This issue is also raised in Part 2 above and specific examples are highlighted in Dr. Sahu's comments. In addition, Dr. Sahu identifies specific claims about control efficiency that lack enforcement or verification provisions.

Finally, DAQ discusses Best Available Control Technology (BACT) despite the area's non-attainment for PM_{2.5} and does not support the assertions that certain options are not economically feasible.

Requested Actions:

- A. DAQ should respond to each of the requests in Dr. Sahu's report specifically identifying flaws in the AO and Project File and requesting DAQ to respond.

5. Approval of This Facility Is Contrary to the Purpose of DEQ and DAQ.

“The mission of the Utah Department of Environmental Quality’s [sic] (DEQ) is to safeguard and improve Utah’s air, land, and water. The agency works with businesses, industry, state and local government, and the public to reduce or eliminate pollution. DEQ’s vision — clean air, land, and water for a healthy and prosperous Utah — supports this mission.”³⁵ “The mission of the Department of Environmental Quality (DAQ) is Safeguarding and improving Utah’s air, land and water through balanced regulation.”³⁶

These are not just mission statements; they are explicit statutory requirements. The purpose of Utah’s Environmental Quality Code is to “safeguard public health and quality of life by protecting and improving environmental quality while considering the benefits to public health, the impacts on economic development, property, wildlife, tourism, business, agriculture, forests, and other interests, and the costs to the public and to industry.” UTAH CODE § 19-1-102(3).

The purpose of the Division of Air Quality is to administer Utah’s Air Conservation Act. UTAH CODE § 19-1-105(1)(a). That Act proclaims that “[i]t is the policy of this state and the purpose of this chapter to achieve and maintain levels of air quality which will protect human health and safety, and to the greatest degree practicable, prevent injury to plant and animal life and property,

³⁵ Utah Department of Environmental Quality, About DEQ (Aug. 8, 2022) <https://deq.utah.gov/general/about-deq>.

³⁶ Utah Department of Environmental Quality, Division of Air Quality (2023), <https://deq.utah.gov/division-air-quality>.

foster the comfort and convenience of the people, promote the economic and social development of this state, and facilitate the enjoyment of the natural attractions of this state.” UTAH CODE § 19-2-101(2).

DAQ rules “for the purpose of administering a program under the federal Clean Air Act” may differ from “corresponding federal regulations which address the same circumstances” only if “the different rule will provide reasonable added protections to public health or the environment of the state or a particular region of the state.” UTAH CODE § 19-2-106(1).

There is no absolute right to an air pollution permit. “A person may not operate a source of air pollution required to have a permit under Title V of the 1990 Clean Air Act without having obtained an operating permit from the director under procedures the board establishes by rule.” UTAH CODE § 19-2-109.1(2).

By focusing only on the procedures in the Utah Administrative Code, DAQ has failed to determine whether approval of the facility is within the scope of the statutory purpose of DAQ and DEQ. The Notice of Intent to Approve adopts a myopic focus on the procedural requirements and fails to analyze whether or how the project would safeguard public health and quality of life. Although DAQ certainly must follow the regulatory structure for permitting, it also must do so within the constraints of the statutory authority granted to it through state statute. Neither the Intent to Approve nor the Project File address how this project fits within that authority.

Requested Actions:

- A. As an initial step, DAQ should examine its statutory purpose and that of the Department of Environmental Quality and explain whether and how the facility would support or hinder such purpose.

Millcreek values DAQ’s consideration of the comments above and appreciates the opportunity for public comment and engagement throughout this process.

Sincerely,



Mayor Jeff Silvestrini

Exhibit B

Comments on Granite's Responses to the Utah DAQ Via Letters Dated July 4 and July 16, 2024

By

Dr. Ranajit (Ron) Sahu¹

I am providing the following comments after a careful review of Granite's responses to the DAQ's various Requests for Information (RFIs), including its additional air dispersion modeling using Weather Research Forecasting (WRF) meteorological data.

Phasing & Scope of Mine

1. The definitions and scope of Phase 1 and Phase 2 as noted throughout the record is not clear. DAQ should clearly define in the Approval Order what is meant by these two terms. Specifically, DAQ should clarify the areas that will be affected (on an annual basis) in each of these Phases.
2. DAQ should also clarify the total area that will be mined. The current documents suggest that the total mined area will be just 20 acres² – over an undefined period of time – with no more than 10 acres being mined at any one time. That seems to be the basis of the analysis and modeling. But, it is clear that the total available area for mining is substantially larger than 20 acres at this site. Regardless of whether the total area will be mined under a separate permitting or regulatory approval process than the current permit, DAQ should provide a fuller, complete, and accurate discussion of the operator's eventual mining goals for this site.

This issue is critical to determining air quality consequences to the project. With steep terrain slopes of 70 degrees and the proposed "reclamation" consisting of "six inches of topsoil" on those slopes, meaningful revegetation is impractical and not likely to be effective. So if the mine owners/operators believe that they can progressively mine over a much larger area than 20 acres in a piece meal approach, then each 10 acre parcel being progressively mined will represent only a fraction of the total source of fugitive dust, which will steadily increase over time.

Revised Air Dispersion Modeling

3. The revised modeling (results presented in the July 4, 2024 SLR Report) only focused on PM₁₀ and did not consider, at all, PM_{2.5}. There is no reason stated in the Granite modeling nor in the DAQ documentation as to why PM_{2.5} was not modeled. Nor is PM_{2.5} addressed in Granite's July 16, 2024 responses to the various DAQ RFIs.

In fact, the mining activities will generate PM_{2.5} and this pollutant will disperse, almost like a gaseous pollutant, given the fine particulate size. Given its size, it will also present additional

¹ I have previously provided my resume and biographical information in this matter. I can provide that again, if requested.

² See Granite's July 16, 2024 letter responding to DAQ's RFI #6(j).

challenges for capture/control. Finally, as the DAQ is aware, on February 7, 2024, the EPA revised the annual NAAQS for PM_{2.5} downward to 9 ug/m³.³ For all of these reasons, PM_{2.5} from the plant and cumulative sources should be modeled for the revised annual NAAQS as well as the current short-term 24-hour average NAAQS.

4. It is a step in the right direction that Granite has now modeled the impacts from the mine using a prognostic modeling approach,⁴ and that Granite proposed a reduction of annual throughput from the mine to 875,000 tons per year for Phase 1 and 900,000 tons per year for Phase 2 – from 1,000,000 tons per year originally assumed to be possible with no potential violations of the NAAQS. In other words, Granite and the DAQ were mistaken about the impacts as previously modeled using non-representative meteorological data from the SLC airport.

While the current prognostic model is an improvement, I believe that it needs additional improvements:

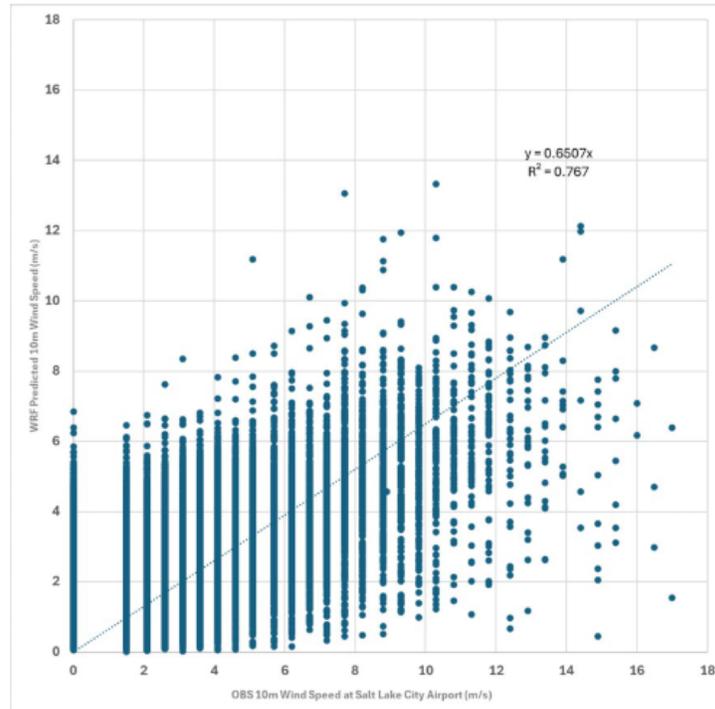
(a) The validation of the current model with SLC data for wind speed ($R^2 = 0.77$) as presented by Granite's consultant is not acceptable. In fact, the graphical presentation of this in Figure 8 of the modeling report, reproduced below, shows that even with very well defined geometry information as well as direct SLC meteorological data used for the comparison, the WRF pseudo-meteorological predictions are very inaccurate and subject to large errors at the SLC airport. We have no confidence, given these results, that the WRF model as currently used is providing useful or accurate data for use in AERMOD at the far more complex mine site.

In addition, I am not persuaded that the WRF model is acceptable given its better correlation for ambient temperatures ($R^2 = 0.98$), given that the temperature is a much more insensitive parameter.

³ <https://www.epa.gov/pm-pollution/national-ambient-air-quality-standards-naaqs-pm>

⁴ I fully concur with the discussions about why, given the complex terrain features at the mine site (see Section 3.1 of the SLR Report) and mountain valley flows as a result (see Section 3.2 of the SLR Report), using SLC airport meteorological data, as was previously done by Granite, was completely inappropriate. As SLR confirms at page 8 of its report, “[T]his comparison underscores that the local wind conditions and temperature patterns at the project site are markedly distinct from those observed and predicted at SLC.”

Figure 8: Comparison of 10 m height temperature between observations and WRF model results for SLC weather station from 2021 to 2023.



Therefore, DAQ should ask Granite to explain how the SLC validation for wind speed can be improved. Specifically, and at a minimum, Granite should re-model using a spatial resolution of 444 meters (which is 1/3 of the 1.33 km resolution and the next higher level of spatial resolution in WRF) instead of the 1.33 km currently used. Not only will this likely improve the SLC validation, the 444 meter resolution is warranted given the complex topography at the mine site itself, which is not resolved well at the 1.33 km spatial scale. The 444 meter resolution would be much more reflective of canyon topography and winds, and would likely result in additional throughput reductions in order to avoid further NAAQS violations.

In addition, Granite should determine if any of the model physics options listed in Section 2.2 of the SLR July 4, 2024 modeling report should also be improved in order to further improve the SLC wind speed comparison.

(b) In addition to comparisons of WRF and the SLC airport data, DAQ should provide comparisons with available meteorological data measurements collected in the canyon itself. For example, WindAlert (<https://windalert.com/spot/27567>) lists a monitor at the “Mouth of Parleys Canyon.” In addition, there appears to be a monitor maintained by an entity called WeatherFlow-Tempest near Kilgore.

DAQ should also require Granite to provide WRF predictions to the measured wind data collected at these sites and also any additional meteorological data sets that the DAQ may be aware of which are located in or around the Canyon and therefore more representative than the SLC airport locations. Proper validation at these Canyon-sites will provide more

confidence that the WRF is properly providing a representative met data set at the mine site for use in AERMOD.

5. The importance of using proper met data using WRF is illustrated by the extremely close modeled results for PM₁₀ NAAQS as confirmed in Table 1 of the July 9, 2024 letter from Granite to the DAQ, excerpted, with highlights below.

Table 1. AERMOD Dispersion Modeling Results using SLC International Airport and Prognostic Meteorological Data

Modeled Phase	Proposed Annual Tonnage (TPY)	Model Averaging Period	Model-Predicted Concentration Including Background (µg/m ³)	Percent of NAAQS (%)
Salt Lake City International Airport Meteorological Dataset				
Phase 1 Operations	1,000,000	24-hour	148.7	99
Phase 2 Operations	1,000,000	24-hour	147.4	98
MMIF Prognostic Meteorological Dataset				
Phase 1 Operations	875,000	24-hour	148.7	99
Phase 2 Operations	900,000	24-hour	146.1	97

Notes:
 µg/m³ = Micrograms per cubic meter
 MMIF = Mesoscale model interface
 NAAQS = National ambient air quality standards
 TPY = Tons per year

Note the fact that even with the lowered annual throughput production values, the predicted percent of PM₁₀ NAAQS are 99% and 97% for Phases 1 and 2. These results confirm that even lowering the production that Granite now accepts, i.e., 875,000 tons per year, is not enough to robustly prevent the exceedance of the 24-hour PM₁₀ NAAQS.

Of course, there is absolutely no information about how the modeling results may compare with the PM_{2.5} NAAQS as noted earlier – since no PM_{2.5} NAAQS modeling has been done.

Cost-Effectiveness of Controls for Reducing Particulate Matter Emissions

6. Granite’s July 16, 2024 Response to the DAQ is also deficient in many ways. First, this response presents cost-effectiveness calculations using certain capital cost data obtained from vendors, along with additional assumptions. Because the cost-effectiveness calculations rely on an incomplete and skewed set of the assumptions, DAQ cannot reasonably rely on these calculations unless it does the following:

- (a) DAQ should obtain from Granite the complete record of the discussions it had with the two vendors for enclosures – leading to the presentation of the cost information provided in Attachment B to this July 16, 2024 letter. For example, what information about the mine activities, storage piles, throughput rates, emissions calculations, and other details were presented to the vendors?
- (b) Granite’s cost-effectiveness analysis presents highly skewed and high cost-effectiveness values because it assumes that capital costs for all of the options considered need to be amortized over a very short period of time, namely just 3 years “...due to the quarry’s progressive nature.”⁵ This makes no sense. Even with the progressive nature, all

air pollution controls including enclosures and/or watering equipment will not be completely discarded and new equipment obtained every three years. In fact, much of the equipment should be reuseable. Therefore the assumption of 3 years as the useful life of controls, which drives up the calculated cost-effectiveness, is wrong.

DAQ should require Granite to re-calculate the cost-effectiveness, with fully supported data about the useful life of equipment.

(c) Similarly, the cost-effectiveness calculations assume an interest rate of 7.5% per year,⁶ also with no support. DAQ should obtain support from Granite for this value. At a minimum, the public record must show Granite's Weighted Average Cost of Capital (WACC) given its corporate structure and allocations between equity and debt.

(d) Granite makes numerous assumptions about the control efficiencies of the various options it considers as described in the July 16, 2024 letter. For example, it says that it used a control efficiency of 70% for water application on disturbed land (see Response to RFI #2). Yet, there is no technical or engineering support for this 70% reduction assumption and how that is related to the "high-pressure sprinkler system" and the curious precise design details (such as its radius of 178 feet and its discharge rate of 247 gallons per minute, etc.) Similarly, it is not clear in Response to RFI #4 why the use of a suction capacity of a very-precise 706 cubic feet per minute should properly control "particulate matter) from drilling. Of course, it is obvious that the suction capacity will depend on particle size, which is not addressed in this response.

(e) The July 16, 2024 letter also seems to raise an equity issue – namely that "other aggregate producers in the region have not been mandated to implement similar control technologies." This is wholly besides the point. The need to limit emissions from the mining activity so as to protect NAAQS and other values is highly site specific. Topography, meteorological data, production levels, availability of resources such as water for dust control, and other factors – collectively affect the degree to which pollutants including PM₁₀ and PM_{2.5} should be controlled. These factors vary from site to site. Therefore what may or may not be required at a different site – even in the Canyon itself – is irrelevant.

(f) The July 16, 2024 response also provides summary calculations about how much Granite's cost of production (in \$/ton of production, as summarized in Table 2 to Granite's July 16, 2024 Response) would increase under various control scenarios.

(g) Finally, Granite's response to DAQ's RFI #5 simply and inappropriately dismisses the source of water that Granite relies on for controlling particulate matter emissions, simply noting that "...sufficient water will be available under a source or combination of sources

⁵ As shown in Table 1 to its July 16, 2024 Response to the DAQ, Granite uses either 3 years or 5 years depending on the type of source in order to determine cost-effectiveness. Both are too short and both assume that there will be no reuse of capital equipment.

⁶ See Table 1 in Granite's July 16, 2024 Letter Response to DAQ.

of water.” Punting this issue that is central to limiting emissions from the mine is inappropriate. DAQ should not accept this response.

7. Granite’s July 16 Response to RFI #6 regarding fugitive dust control measures and how they will be complied with under Utah Admin. Rules R207-309-10(3) is nothing more than a regurgitation of the regulatory language itself with little additional details about how compliance with the regulations will actually be achieved.