The Las Placitas Association

Preserving and Protecting the Quality of Life in the Placitas Area

ES-CA
EASTERN SANDOVAL CITIZENS ASSOCIATION

August 2, 2022

Rep. Alan Lowenthal
Chairman, Subcommittee on Energy and Mineral Resources
United States House of Representatives
1324 Longworth House Office Building
Washington, D.C. 20515

Rep. Peter Stauber
Ranking Member, Subcommittee on Energy and Mineral Resources
United States House of Representatives
461 Cannon HOB
Washington, D.C. 20515

Re: July 15, 2022 Hearing on the Buffalo Tract Protection Act (H.R. 5805)

Dear Chairman Lowenthal and Ranking Member Stauber:

On behalf of the community of Placitas, New Mexico—including the Land Use Protection Trust, Eastern Sandoval Citizens Association (ES-CA) and Las Placitas Association (LPA) —thank you again for the opportunity to testify in support of the Buffalo Tract Protection Act. Below follow my responses to questions for the record from your Committee and Rep. Melanie Stansbury.

1. ***Ms. De Valladares, in your testimony you mentioned the economic impacts that proposed gravel mining would have on Placitas, New Mexico. Could you further comment on some of the economic value of migration into Placitas that would be impacted by the proposed mining?***

Placitas has become a magnet for the affluent retired and semi-retired, drawn by the natural beauty and healthy outdoor lifestyle. Some are transplants from other parts of New Mexico and many are from out of state and bring significant financial resources with them. In the community's *Land of Enchantment … or Gravel,* ES-CA and LPA estimated that Placitas households with at least one member aged 65+ added $57-97 annually to New Mexico's economy.[1] The Bureau of Land Management's 2010 mineral resource report noted the incompatibility of mining with residential

[1] Eastern Sandoval Citizen's Association and Las Placitas Association. "Land of Enchantment … or Gravel" (2015), https://lasplacitas.org/wp-content/uploads/2017/09/crossroads.pdf.

development.[2] The Placitas Chamber of Commerce called gravel mining an "anti-economic development strategy."[3]

American Baby Boomers, individuals born between 1946 and 1964, comprise a huge and very valuable age cohort. The youngest boomers turn 65 in 2029. The nation, the state, and Placitas therefore have a 7-year timeframe in which to recruit Boomer retirees. If Boomers work until age 70, the window extends until 2034—another 12 years.

There is a "jobs race" underway in most states in our nation and New Mexico is among them. No one disputes New Mexico's need for more "economic" jobs, which are defined at least in part as jobs that bring money from outside the state (at the 50% level according to Albuquerque Economic Development) into the state to pay New Mexican employees.[4]

Retiree spending acts as a surrogate for "economic jobs" by creating non-economic jobs and supporting New Mexico's economic development efforts. Non-economic jobs have value to the state of New Mexico. In the non-economic job category, the highest-impact market segments are: food services, real estate, health care, and retail trade. It is interesting, and highly germane for Placitas, to note that the Department of Commerce views real estate activity as a leading contributor to U.S. economic growth. It is clear that the construction and real estate jobs in Placitas provide employment for a broad spectrum of the greater community population. This contributes directly to environmental justice.

The future inability to attract in-migration and worse, still, loss of Placitas retirees through out-migration would have negative economic consequences for Placitas, Sandoval County, and New Mexico. Why? The retirement business is a huge industry and New Mexico faces nationwide competition. All things being equal, Placitas is reasonably positioned to compete. On Indian Flats mesa itself, there are 325 homes adjacent to the Buffalo Tract; an equal number of platted lots and other unplatted lands within a mile could be developed for residential uses. Sandoval County's *Placitas Area Plan* indicates potential West Placitas for some 1200 units at a density of one dwelling unit per acre.[5] All of Placitas is within a five-mile range and therefore entirely subject to the negative economic consequences of gravel mining per scholarly research.[6]

Many current Placitas residents moved to the community on the assumption that the 1000-acre Placitas Pit would be phased out by 2015 consistent with Sandoval County's 1990 decision not to

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[2] U.S. Department of the Interior prepared by Intera *Mineral Resource Potential and Reasonable Foreseeable Development for Planning Units 1-5* ("Residential development threatens to curtail mining activity in portions of the region"), https://eplanning.blm.gov/public_projects/lup/64954/78492/89454/Mineral_Resource_Potential_and_Reasonably_Foreseeable_Development_Report_01-11-10.pdf.

[3] Placitas Chamber of Commerce Letter to Chairman Lowenthal and Ranking Member Stauber (July 18, 2022) https://docs.house.gov/meetings/II/II06/20190919/109957/HHRG-116-II06-20190919-SD009.pdf,.

[4] Debra Inman, VP of Albuquerque Economic Development, Inc. on July 23, 2015.

[5] Sandoval County Placitas Area Plan; http://www.sandovalcounty.com/uploads/Downloads/Divisions/PlanningZoning/aap/papfinal.pdf.

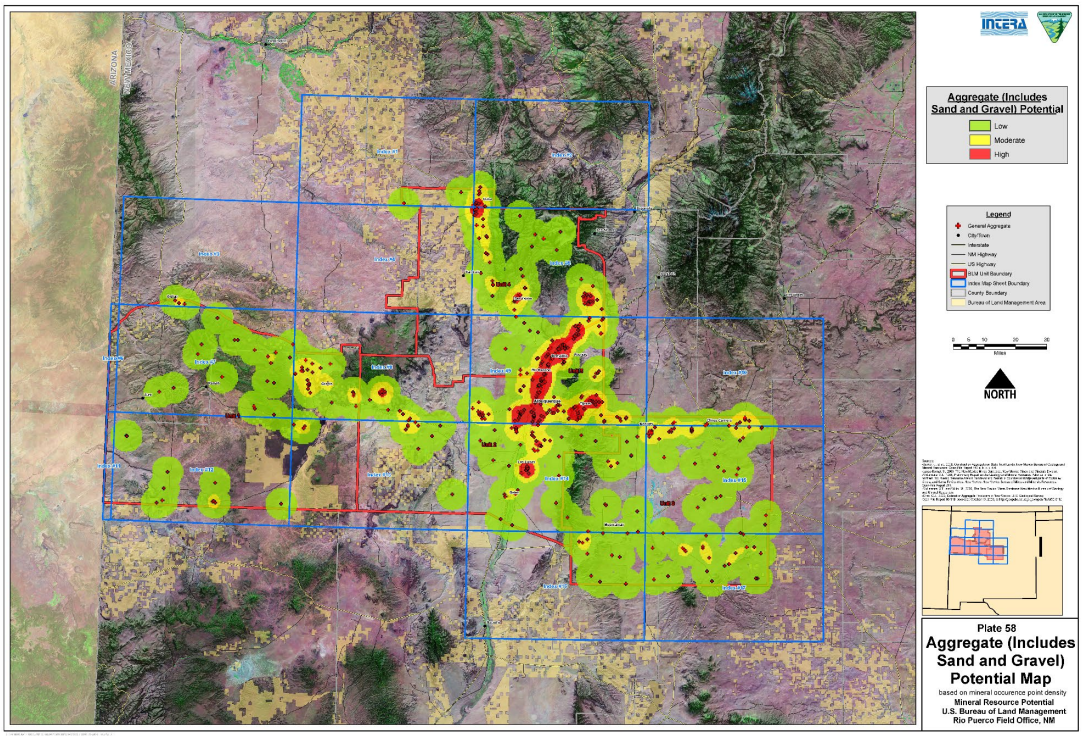
[6] Diane Hite, 2006, "Summary Analysis: Impact of Operational Gravel Pit on House Values, Delaware County, Ohio," Auburn University.

allow new mining in Placitas. Instead, despite legal action by Sandoval County, that mine originated a new lease for another decade and a half. A smaller 75-acre mine recently ceased operations. Continued or expanded mining activities threaten residential development and would result in tremendous opportunity costs for Placitas, Sandoval County, and the state of New Mexico. There are other areas more suitable for future gravel mining at safe distances from population centers.

In conclusion, the retirees in the Placitas community bring huge economic value to New Mexico by creating non-economic jobs and supplementing the economic "jobs race" in the state at little, if any, cost compared with the expense of job creation through classic economic development.

2. ***Can you please comment on the alternative sources of gravel for the market area that BLM identified in its mineral resource potential report entitled "Reasonably Foreseeable Development for Planning Units 1-5 in the Rio Puerco."?***

Preparatory to developing the draft 2012 *Rio Puerco Resource Management Plan* BLM prepared a 2010 report entitled *Mineral Resource Potential and Reasonably Foreseeable Development for Planning Units 1-5*. This report identified a 60-mile band from south of Santa Fe to south of Los Lunas and 30 miles eastward to Tijeras as sand-and aggregate-rich areas that fall into BLM's "salable" category. The resources in these areas are capable of supplying gravel to the region for a long time, as indicated in Plate 58 from that report, reprinted below, which characterizes the significant aggregate potential in Unit 5 of the Rio Puerco planning area. Outside Placitas, the other areas of high aggregate potential in Unit 5 are as close as—or even closer than Placitas—to the prime market, Albuquerque. Yes, gravel is indeed a plentiful commodity in our market area.



Despite the availability of gravel in other parts of the region, the Placitas community has long been disproportionately burdened with mining operations. Today, in the four counties that encompass Albuquerque and Santa Fe and the corridor along Interstate 25—Sandoval, Bernalillo, Santa Fe and Valencia—around 30 active sand and aggregate mines are registered with the Mining and Minerals Division at the New Mexico Department of Energy, Minerals and Natural Resources (EMNRD). The New Mexico Mining Act does not require permitting for sand and gravel mines. Please see attached EMNRD spreadsheet of active mines in these counties. **In the near future, we expect that EMNRD will also provide visualizations that graphically illustrate the location of these mines;** it was not possible for EMNRD to provide such visualizations within the timeframe of your Committee request. Below, we include this less granular map of aggregate mining in the state (indicated by red triangles).[7]

The existence of these mines reflects both the supply of the aggregate resource and demand for sand and aggregate products. Over half of New Mexico's population is concentrated in the greater Albuquerque metro area (Sandoval, Bernalillo and Valencia counties). Historically, aggregate mines have been located close to their markets. However, due to the impacts of urbanization and factors such as deeper appreciation of public health impacts of mining, the incompatibility of gravel mines and residential areas in close proximity has come sharply into focus. Consequently, the distance between mine and market has often increased in developed nations worldwide.[8]

New Mexico, a sparsely populated high-desert environment, is the fifth largest state, so travel distance for any purpose can be significant. The market radius from a gravel mine is up to 90 miles, according to BLM, which referenced the New Mexico Department of Transportation. To paraphrase a local wholesaler/retailer of sand and gravel products with two business locations in the metro Albuquerque area, his industry understands that mines are subject to depletion, so the industry is always ready to find new sources of gravel, the foundation of its business model. The good news for the metro Albuquerque market is that there is ample potential supply in this four-county area.

EMNRD has explained that mining production figures are proprietary except as a total for a particular commodity. In 2021, EMNRD reports statewide production of 13,293,701 tons of aggregate.[9] While EMNRD has been very responsive to requests for information, **it was not possible for EMNRD to timely provide your Committee with a breakdown of aggregate production by county or other parameters. However, we expect this information to be**

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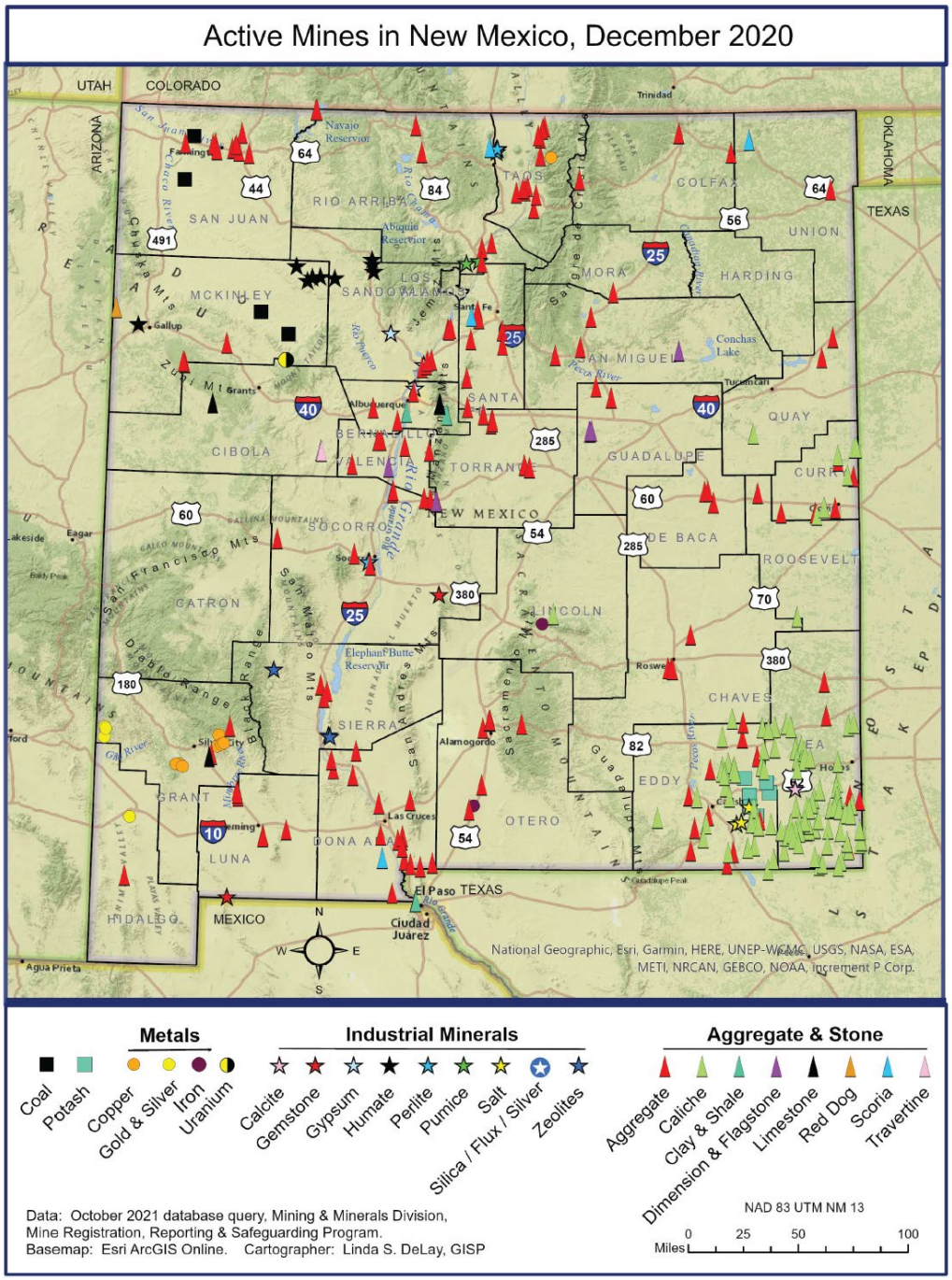
[7] State of New Mexico, Energy, Minerals and Natural Resources Department, *2021 Annual Report,* at 59 (2021) (*NMEMNRD 2021 Annual Report*), https://www.emnrd.nm.gov/officeofsecretary/wp-content/uploads/sites/2/EMNRD_AnnualReport_2021.pdf.

[8] See, e.g., J.I.Escavya, M.J.Herrero, F.Lopez-Acevedo & L.Trigosa, *The progressive distancing of aggregate quarries from the demand areas: Magnitude, causes, and impact on CO2 emissions in Madrid Region (1995–2018)* (2022), https://reader.elsevier.com/reader/sd/pii/S0301420721005134?token=BC25AECFFDEFE9BF48A9F77C452715415CCB8772FFCC1DC32B4DBC53F68B9C487E6F24C2B527BF9F8E2EE6788FE26C4A&originRegion=us-east-1&originCreation=20220730193522.

[9] *NMEMNRD 2021 Annual Report* at 55.

forthcoming from EMNRD. When we receive it, we will be happy to share it with your Committee to supplement the record.



3. ***Could you please expand upon the impacts new mining would have on local business in Placitas?***

Again, the Placitas Chamber of Commerce considers gravel mining an "anti-economic development strategy." New mining would only intensify the negative impacts on local business. Each new mine

means more individual and cumulative impacts to public health and the environment. All of these impacts have negative economic consequences for local business.

The reduction in or reversal of in-migration would diminish purchasing power and spending in the Placitas area, curtailing direct effects of transfer of wealth and slowing or arresting the previously discussed "non-economic" job growth in vital market segments such as food service, real estate, health and retail trades. It is clear that construction and real estate jobs in Placitas provide employment for a broad spectrum of the greater community population, contributing to environmental justice. In addition, Placitas has become a local arts center: its natural beauty and creative energy have spawned an artist community and fertile arts marketplace. New mining will adversely impact Placitas' appeal as an arts center.

In addition, Placitas enjoys the presence of two indigenous pueblos, Santa Ana and San Felipe, whose cultures have enriched and inspired not just the local but the regional communities for centuries. Both pueblos have local business interests, particularly related to tourism, that would be harmed by more mining. For the Pueblos, the Buffalo Tract is a sacred site of ancestral value and more mining in this location would destroy all "business" potential apart from gravel mining, which is of no interest to the Pueblos. Both pueblos have ceased all mining operations on their own lands. The Buffalo Tract is known to be a wildlife corridor so its destruction for more gravel mining would eradicate any possibility of eco-tourism.

Recreation in the metro Albuquerque area would also suffer with loss of the Buffalo Tract for recreation activities and as an urban interface. This will have real economic costs. Nationwide, recreation on BLM-managed lands is valued as a $7.7 billion activity that supports 54,000 jobs, second only to oil and gas.[10]

Public health would be further endangered by irretrievable loss of carbon sink of the carbon sink at the new mine location—the Buffalo Tract is some 3,000 acres in size. Air pollution from particulates (PM 2.5 and PM10) and release of other greenhouse gasses from local air pollution (due to gravel production and mobile sources) would increase and intensify the cumulative impacts. Based on New Mexico Environment Department (NMED) particulate monitoring between the Placitas Pit and Buffalo Tract area in 2016 and 2017, Placitas was, in fact, the only "orange dot" on the NMED state map prepared in 2016. "Orange dots" mean that air quality was unhealthy for sensitive groups.

[10] U.S. Department of the Interior Bureau of Land Management, *The BLM: A Sound Investment for America 2020*, https://www.blm.gov/sites/blm.gov/files/SoundInvest2019-6pages-FINAL-083019.pdf.

Furthermore, Placitas' water supply, its most precious resource, would be reduced. According to the New Mexico State Engineer, **the water consumed by that one mine could support 1000-1200 new homes in Placitas.**[11]

Finally, gravel mining imposes very direct costs on local residents: shattered windshields. This is no minor impact. Placitas has multiple large mines that generate many trips in, out and around the community. Gravel from haul trucks regularly spills from haul trucks, striking other vehicles. A windshield replacement may cost $250 to $1000 or more, especially for the SUVs and trucks common in Placitas. One might expect haul truck insurance to cover this widespread and expensive damage. However, the haul trucks comprise two licenses—one for the cab and the other for the truck bed. Only the truck bed license plate is visible from the road and the truck bed owner's insurance routinely refuses to pay, claiming that only the cab is liable. But the cab's rear license

[11] New Mexico Office of the State Engineer, Point of Diversion Summary Well Tag POD Number RG 49516 (Aug. 1, 2022) (on file with author).

plate is not visible, so the responsible party cannot be properly identified, leaving Placitas residents and visitors to the community with no recourse. This issue has become a major local nuisance—and would become even worse with the creation of new mines.

In short, Placitas' ability to attract new residents and create new businesses is at stake. New mining would destroy the principal selling points of Placitas as a retirement destination: its natural beauty, clean air, and clean water.

Questions from Rep. Stansbury

1(a). Are there other sources where this gravel could potentially be mined from?

See response to Committee Question #2.

1(b). How would that affect the greenhouse gas emissions of the gravel, sand and particulates mined?

More mines means more gravel production and more production means more emissions. Mining emissions come from production and mobile sources. Emissions from mining production are tracked but mobile source emissions are not.

Notably, not all sand and gravel mines are subject to NEPA analysis when a mine is created—before it begins to produce. Upfront NEPA analysis (before creation of the mine and any production) could provide information on emissions linked to destruction of carbon sinks (soils and vegetation). New mines, especially large mines, destroy the desert carbon sink.

Once mines are operational, the New Mexico Environment Department (NMED) tracks throughput of sand and gravel by tonnage at the production site in the Environment Protection Agency (EPA)'s EPA AP-42 form that records emissions (CO2, particulates [PM10 and less], and NOX) in compliance with EPA regulations. A typical full load would be 20 tons or 40,000 lbs. The National Stone Sand & Gravel Association's 2021 report states that greenhouse gas emissions are 5.51 kg CO2e per ton of sand and 5.51 kg CO2e/ton of product.[12] **With forthcoming data from EMNRD it may be possible to estimate production emissions that go out on the road**, which would be interesting, although it will not answer the question about vehicle miles traveled. **On receipt of the EMNRD information and further analysis, we would be happy to share the results with the Committee.**

In any market assessment, demand must be considered alongside supply. In addition, any comment on greenhouse gas emissions would benefit from a basic understanding of the sand and gravel business model in the greater Albuquerque area.

[12] The Aggregates Industry, *Greenhouse Gases: Low-Emissions, High resiliency*, April 26, 2021, https://www.nssga.org/sites/default/files/2021-05/NSSGAGreenhouseGasEmissionsReport04-26-21.pdf

Demand for sand and gravel comes from contractors, builders, and government as well as individual consumers who purchase wholesale or retail. For purposes of understanding demand in the Placitas area, it is important to note that the state of New Mexico reports that it has no arrangements with any Placitas mines; hence, public infrastructure projects source gravel outside Placitas mines.[13]

For purposes of this discussion, mobile gravel transport involves **two types of trip generation**. To obtain gravel, heavy "haul" trucks go directly to the mines to pick up, and then transport, sand and gravel to customers. (Trucks may be the property of the mines or its customers). This may be the only round trip associated with hauling a load to an end-use customer, *e.g.*, a homebuilder. If, instead, the end-use customer is a wholesaler or retailer, that customer (or some other intermediary) may go to the wholesaler or retailer's place of business (storefront, yard, *etc.*) to obtain the product. This would entail generation of another round trip or perhaps many additional roundtrips. Both situations are common.

However, for purposes of responding to the issue of mobile emissions, no data sources exist for either numbers of trips generated in these or any other category(ies), or associated vehicle miles traveled. Therefore, it is not possible to estimate mobile emissions.

While it might seem reasonable to assume that the closing of a mine in this market area could result in increased travel distances, this is by no means a foregone conclusion. This is because there may be other sources of supply (*e.g.*, mines or storefronts, yards.) near the closing mine that do not require extra travel, or because new sources of supply may open up. Moreover, travel distances may fluctuate over time depending on the local supply and demand as well as the type of trip generation.

In the case of Placitas, which has more than one large mine, there are other potential sources of gravel in the "micro-market." Existing mines in or near Placitas are not as convenient as maps may make them appear: for the two large mines north of I-25 and S.R. 165 are already required by local regulation to drive 9+ miles north of Placitas to the Algodones exit, then double back 7+ miles to reach the existing Vulcan mine. Northbound usage of the frontage road is not allowed. Any future mine on the Buffalo Tract would require traveling at least this same distance and likely farther, given the constrained truck access and the unsuitability of Placitas roads for heavy haul traffic.

The EPA sets emission standards for heavy-duty highway engines and vehicles. However, mobile emission sources are not under NM EPA jurisdiction. This means that road emissions of sand and gravel from trucks are neither measured nor tracked. Neither does NM EPA address fugitive emissions, which are closely associated with sand and gravel mining. EPA defines fugitive emissions as "particulate matter that is generated or emitted from open air operations." In 1995 EPA estimated that fugitive dust was responsible for 92% of the PM-10 in the emissions in the U.S.[14]

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[13] As reported by NM DOT to EMNRD in July 2022.

[14] John H. Ferguson, H. Willard Downs and Donald L. Pfost, University of Missouri Extension, *Fugitive Dust: Nonpoint Sources* (Oct. 1999)
https://extension.missouri.edu/publications/g1885#:~:text=The%20Environmental%20Protection%20Age

This helps to explain why, given the concentration of large gravel mines in the area, Placitas appeared as the only orange dot on the NM EPA map in 2016/17 indicating unhealthy air for sensitive groups such as retirees.

Among the four counties in the market area, only Albuquerque in Bernalillo has a vehicle pollution management program, which covers spark ignited internal combustion engines (ICE). Diesel engines are not spark ignited so they are not included in the program. The Environmental Defense Fund offers a simple formula for calculating greenhouse gas emissions for a freight truck.[15] A truck that carries 20 tons or 40,000 lbs and travels 1000 miles would generate 3.24 metric tons of CO2. However, diesel engines still produce CO2 (but less than ICE engines) as well as NOX. Haul trucks typically run on diesel engines.

Any assessment of the future carbon emissions of haul trucking should consider the ongoing shift to zero-emissions vehicles. While this shift began with passenger vehicles, heavy trucks are a prime candidate for the transition, as recognized by the U.S. Department of Energy's 21st Century Truck Partnership. Hydrogen trucks are expected on the road worldwide in the 2030s, if not sooner. The President's *Executive Order 13990: Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis* (January 2021) emphasizes the role of science in the climate challenge.[16] Finally, *U.S. Department of the Interior's Climate Action Plan* identifies public health considerations as a cross-cutting issue in climate adaptation, resilience and equity related activities.[17]

2. Are the materials that could potentially be mined at the land withdrawn by the Buffalo Tract Protection Act classified as critical minerals?

No, gravel (quartz and silicon dioxide) is not on the 2022 Final List of Critical Minerals issued by the U.S. Geological Survey.[18] In its M*ineral Resource Potential and Reasonable Foreseeable Development for Planning Units 1-5* BLM identifies no other critical minerals in this area.

3. Would additional gravel mines benefit the area economically?

No, Sandoval County already loses more tax revenue than it gains from the existing mines. Additional mines would exacerbate the devastating individual and cumulative impacts of current mines, which include:

ncy%20estimates%20total%20fugitive%20dust,dust%20can%20cause%20low%20visibility%20on%20unpaved%20roads.

[15] https://business.edf.org/insights/green-freight-math-how-to-calculate-emissions-for-a-truck-move/#:~:text=The%20average%20freight%20truck%20in,of%20CO2%20per%20ton%2Dmile

[16] EO 13990: Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (2021). NSSGAGreenhouseGasEmissionsReport04-26-21.pdf

[17] *Department of the Interior Climate Action Plan*, U.S. Department of the Interior, 2021.

[18] https://d9-wret.s3.us-west-2.amazonaws.com/assets/palladium/production/s3fs-public/media/files/2022%20Final%20List%20of%20Critical%20Minerals%20Federal%20Register%20Notice_2222022-F.pdf

- Damaging the environment and increasing public health risks will result in **decreased in-migration**, which means a loss of wealth that would otherwise have been transferred to the Placitas area—and, in turn, a loss of economic benefits to Sandoval County and the state of New Mexico. **Potential out-migration** could shrink the economy.
- **Paltry job creation**. At the 1000-acre Vulcan Placitas Pit, some four jobs were recorded at the time of a near-fatal 2017 mining accident. Mechanization has made mines more efficient, but also even less beneficial to their local economies. In 1965, around10 jobs were associated with the average gravel mine.
- **Reduced property values** near existing mines, consistent with findings of scholarly research that properties within 5 miles (*i.e.*, all of Placitas) are subject to economic loss—and a corresponding reduction in Sandoval county's tax base. The County relies on property taxes for 75% of its revenues.[19]
- **Scant sales tax revenue** for Sandoval County because gross receipts taxes are levied at the point of sale, which typically occurs in other parts of metro Albuquerque in a different county. Minerals are not taxed at the point of origin.
- **Increased road and infrastructure expenses** for Sandoval County
- **Increased burdens on County emergency services.** For example, the near-fatal mining accident at the Vulcan Pit in 2017 required 60 fire and rescue workers to dig out four trapped miners by hand.
- **Depletion of scarce water supply**.
    - The Vulcan Placitas Pit has a well permit from the State Engineer's Office for 359 acre feet per annum (afa) while the nearby La Mesa subdivision of 332 homes has a permit authorizing 110 afa—less than a third of the mine's allotment. For each of the years during the period 2018 and 2021 total La Mesa water usage ranged from 81-87 afa while Vulcan water consumption for mining—*in an attempt to manage dust and particulates*—was 490 afa for 2018 and 2019, 366 afa in 2020, and 275 afa in 2020.
    - Thus, **Vulcan's water allotment of 359 afa** (as borne out by its water consumption)—or a Vulcan size allotment on a new mine—**would be sufficient to provide water to some 950-1200 new homes** with substantial economic benefits to Placitas, Sandoval County and the state and no adverse impacts to public health or the environment.
- **Reduction of potential recreation area** for metro Albuquerque
    - Nationwide on BLM-managed lands recreation is valued as a $7.7 billion activity that supports 54,000 jobs, second only to oil and gas.[20]
    - Eco-tourism is a growing global business.

[19] https://www.sandovalcountynm.gov/wp-content/uploads/2019/08/FY20FinalBudget.pdf
[20] The BLM: A Sound Investment for America 2020. Bureau of Land Management, Department of the Interior. October 2020.

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Thank you again for the opportunity to testify before your Subcommittee. Please let me know if I can be of further assistance.

Sincerely,

Mary-Rose de Valladares

Mary Rose de Valladares
Chair, Land Use Protection Trust