

Should the CEMEX Mining Permit be approved?

Although I serve on a Lyons advisory board, the following are only my personal thoughts. Correction of any errors and any needed updates would be much appreciated.

Also, some of the below makes use of information posted by a local advocacy group three years ago. This includes a verbatim copy of 2019 Boulder County-CEMEX correspondence, and it is at: <https://sosvv.wordpress.com/2019/06/20/breaking-news-land-use-director-holds-cemex-to-25-year-permit/>

Context: our neighbor CEMEX (large multinational company, headquartered in Mexico, second quarter 2021 net profit of \$270 million) seeks a 15 year extension on its Dowe Flat mining permit, which is integral to cement production south of highway 66.

Property Taxes: The company pays \$5872/year in property tax to Boulder County, on the 525 acre mining property. None at all on another 88 acres deemed “commercial land of no value” and which connects the mined area to the road.

For comparison, a small house in the close vicinity, also north side of the road, pays \$4934 on six acres.

In its Permit Application, the company is promising this same land in 2037 to Boulder County after reclamation at “0” cost, and claims this to be a savings of \$6.6 million. But the County-assessed actual value is only a little over \$400,000.

About 200 acres of other land would also be conveyed to the County (for example, there is an 88 acre parcel it owns to the east of the mining area). At present, that parcel pays \$311/year in property tax and has an actual value assessed of \$11,300.

In contrast, the area the kiln is on does pay significant property tax: this year \$130,081, on 866 total acres (\$14.3 million assessed actual value). This is, however, only ~35% of what was paid just last year (\$367,114 in 2021, similar amounts in years prior). If the same reduction applies for next 15 years, this is a decrease in County property tax revenue of, very roughly without inflation, \$3.6 million. Those are real dollars, real savings to CEMEX.

Why such a large decrease? According to County tax records, what happened this tax billing year is that part of the land was moved from the “single family residence-improvements” property code to the “manufacturing processing-improvements” (much lower rate). The assessed property values appear to have been left as they were. Whatever the rationale, CEMEX is paying much less in taxes on the property this year and will also in the years to come.

As part of its permit application, the company promises to sell just some of this land to the County, in 2037, for \$22,431/acre. This is being portrayed as a reason to approve the agreement.

Permit Application: Boulder County promises an end to both mining and production (in the kiln area, south of the highway): in 15 years (some CEMEX ownership will remain, and industrial zoning as well). If mining instead ends this year, as per the existing permit, then a reasonable supposition is that the added expense of mining elsewhere and transporting the raw materials would greatly increase costs and cause CEMEX to shut down and divest the property, probably rather quickly.

It has already tried to do so. In 2016, CEMEX was planning to sell the Lyons plant and it was reported sold (to GCC, also in Mexico). Then, just before closing, this Plant and a cement terminal in Florence, CO, were removed from the larger deal (other CEMEX assets were sold).

Proximity to the raw materials is a major economic criterion for locating these plants. Will CEMEX operations extend after mining comes to an end? It seems misleading for Boulder County and CEMEX to imply in press releases that unless the County agrees to the extension requested by CEMEX, the kiln will continue operating “indefinitely”.

Local environmental costs: Some are well-established already for this Plant. Others are less certain but are legitimate concerns. Consider: in 2008, in California, the Unified Air Pollution Control District in Monterey Bay reported high levels of hexavalent chromium (the cancer-causing chemical in the Erin Brockovich movie) at an elementary school and fire department in Davenport, CA. It originated from dust emitted by the Cemex Cement plant in Davenport: the levels of Chromium VI measured eight times the air district's acceptable level at Pacific Elementary School and 10 times at the (somewhat closer) Davenport Fire Department. At the time, the District's executive director stated that it's "highly possible that Chromium VI continues to be produced across the country as an accidental, previously unknown byproduct of the cement-making process". The Davenport plant has since been closed by CEMEX, and the local government is exploring plans for reuse.

Hexavalent chromium is present in the cement and clinker produced by many cement plants. It is a potential occupational hazard for production (there are techniques to minimize the hazard). Just as for silica dust. But the chromium is toxic in exceptionally trace amounts and could also find its way into storage areas, buildings, and ponds on the property. The ponds are hydrologically connected to the shallow aquifer along the St Vrain rivers and well water supplies. Bottom line: Cement production plants come with environmental costs. Is the possible contamination being adequately monitored? Is it a factor in the present decision-process? The longer this Plant continues to operate (it has already been 25 years), the greater the risk of buildup of this and other contaminants in our local soils and water.

Plant Site in the Floodplain and in the Floodway: Much of the Plant is in the regulatory floodplain and also the floodway. Why do the regulations that apply to everyone else, residential or commercial or industrial, not seem to apply to CEMEX? The 2013 flood caused damage to the plant and to the elevators for the homogenizing silo. Storage of petrochemicals in the floodplain are just one of many hazards posed by continued operation of the plant and the mining and covered in floodplain management. Is Boulder County adequately enforcing its

flood damage ordinance and thereby reducing the risk, not just on-site but downstream? At what location in the decision-making process will this issue be addressed? Some types of municipality-owned or company-owned facilities are appropriate for floodplain locations (municipal waste treatment plants need to be near the river; solar arrays can be elevated and pass “no-rise” floodwater requirements). Cement kilns do not need to be. These other possible uses will not occur as long as the County goes back on prior agreements (see below) and instead works to make continued operation of the Plant economic.

Workplace environment and safety: Every industrial work place has its hazards. But recent worker and ex-worker comments on indeed.com are instructive as to some of the specific issues at Lyons CEMEX, and since the quarry/mining operations and the kiln are one industrial operation: “Dirtiest plant I’ve worked at in 39 years in Refining and Coal Fired Power Plants. Out-dated equipment and Control System was several revisions behind.” “The safety manager for my plant has a home base at the KY plant and visiting my plant 4 times a year so the mentoring process was very lacking”. “...hard work with the presence of chemical dust in the air at all times of the day”. “..manual labor sometimes involved in very hot areas, very small areas and very dusty environment.” The history of (unnecessary) silicosis in the industry as a whole, and the possible presence in the dusts of very toxic trace chemicals is troubling. Shouldn’t these concerns be part of any County decision to facilitate continued mining and cement production?

Local Use of cement: CEMEX is not just a local industry. It trades its cement, coke and coal internationally (it has its own trading company). When the Front Range market wanes, it can ship excess product to other states, or overseas. How much Portland cement, produced at some environmental cost here, will be used in our region in the next 15 years? Only the company knows.

Greenhouse gas emission: This is the elephant in the closet. The media coverage states that the operation of this Plant emits 350,000 tons of CO₂/year. That is the equivalent of about 70,000 cars/year, or 33,800 homes. As a (fact-checking) comparison, an industry estimate is that there are 92 cement plants in the country and the total emitted is about 6.7 million tons, for an average of about 728,000 tons each. It could be that the estimate for Lyons is unrealistically low, unless the Plant is unusually small. In any case, this single operating plant’s production of CO₂ is roughly comparable to that produced by all of the housing units in Longmont. It is an amazingly high number. Boulder County is right to be concerned about this.

What Changed? Why the recent about-face on this matter from the County? Two items:

1) Less than 3 months from now, the CEMEX cement plant reaches the end of 25 years of mining cement raw material under a County permit (“Boulder County Landuse Resolution #94-81”, May, 26,1994). The County could simply decline the application and reclamation and the rehabilitation and (already-promised) handover of some of the land to the County could begin.

2) A Covenant “running with the land” was recorded on July 17, 2002 in County records (Reception No. 2308595): between the County and relevant landowners. It provided Boulder

County with an interest to “various real properties associated with the mining of this area”. This Covenant establishes “*a commitment by Boulder County to prevent, to the extent possible, use of the property for mining after December 31, 2021*”.

Pretty plain language, right? So, how exactly did the County move from this legally enforceable commitment to prevent further mining, to the present situation? The Covenant, signed by the three county commissioners, prevents Boulder County from extending the deadline further or amending the option agreement and lease. This was communicated to CEMEX in a June 14, 2019 letter from the Boulder County Land Use Director. The present permit application includes a cover document prepared by Boulder County Park and Open Space that briefly refers to this matter: but then simply evades the issue. The public deserves a clear explanation. So do the County Commissioners.

Objective Technical Input is Still Needed: Finally, there is one thing on which we ought to all be able to agree. Impartial information indicating the pros and cons needs to be provided to the public and the referring entities in advance of the County Commissioner hearing. So far, the permit application and associated news releases instead disclose a newly made and un-approved draft agreement to the public. It was reached by County Parks and Open Space on the public’s behalf, but their publicity portrays the agreement only in the most positively-biased manner possible. And there are other relevant issues not considered at all. What is critical now is for the balanced pros and cons of this major decision to be presented and further evaluated. This work must be done for the benefit and protection of the public at large, the neighbors such as Town of Lyons, and to accurately inform the County Commissioners who make the final decision.

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