

Submitted by Richard Young, Ph. D., NASA retired, P.O. Box 575, Dunlap, CA 93621

POSSIBLE FEDERAL SANCTIONS FOR STATE AND FRESNO COUNTY IF JESSE MORROW MINE IS APPROVED

Federal sanctions may be implemented if Fresno County approves the Jesse Morrow mine. The reasons are itemized below.

1. As stated in the DEIR, the U.S. EPA has responsibility to review all State Implementation Plans (SIP) to determine if they conform to the mandates of the federal Clean Air Act Amendments and will achieve air quality goals when implemented. If the U.S. EPA determines an SIP to be inadequate, it may prepare a Federal Implementation Plan (FIP) for the nonattainment area and may impose additional control measures. Failure to submit an approvable SIP or to implement the plan within mandated timeframes can result in sanctions being applied to transportation funding and stationary air pollution sources in the particular air basin.
2. Fresno County resides in a federally designated nonattainment area for atmospheric PM_{2.5} particulate matter, and is in an “extreme nonattainment area” for ozone, “extreme” being the worst air pollution category possible.
3. According to the DEIR, contributions of the Jesse Morrow mine to ozone precursors, which directly cause ozone pollution in the basin, would be “significant and unavoidable”. The DEIR does not adequately address potential PM_{2.5} pollution from the mining operations.
4. No overriding consideration of the air pollution from the Jesse Morrow mine can be established in terms of Fresno County aggregate needs. Current permitted aggregate reserves within the Fresno P-C region are sufficient to supply Fresno County for well over 2 decades. Alternate proposed mines in the pipeline would extend aggregate reserves to over 3 decades.

ANALYSIS OF AGGREGATE NEEDS AND SUPPLY FOR FRESNO COUNTY

This document will show that, contrary to the arguments presented in the DEIR, in the foreseeable future there is little justification for the CEMEX Jesse Morrow mine. The major points are summarized below.

1. POPULATION GROWTH The 5- year projected population growth rates for Fresno County quoted in the DEIR are too large. Data from the US Census Bureau for the years 1980-2008 show that since 1995 Fresno County growth rates have not been nearly as high as projected in the DEIR. Comparison of the DEIR projections in years for which Census Bureau data and DEIR projected growth overlap, 2000-2005 and 2005-present, clearly show DEIR projected growth rates are 30-40% too high.

It is worth noting that the US Census Bureau average population growth rate for Fresno County between 2000-2008 is significantly less than the average growth rate for any of the periods 1980-2008, 1980-1990, or 1990-2000, and the average growth rate for 1990-2000 is less than that for 1980-1990. Thus there is no acceleration, but in fact a continued significant slowing, in Fresno County population growth rate since 1990.

Any projected growth rates are uncertain, but extrapolation of trends observed in US Census Bureau data covering the last 3 decades seems a reasonable approach, and gives reasonable upper and lower bounds on future population figures. The population projections given in the DEIR were not based solely on this approach, and incorporate subjective assumptions resulting in population overestimates since year 2000 as shown above. Because there were large growth rates in the 1980-1990 time frame, extrapolation to future dates, say 2030, using the average growth rate between 1980-2008 yields a greater population in 2030 than more recent trends would indicate. However, for the sake of being highly conservative, it will be used to provide an upper bound on population growth in the discussion below. In fact, it projects a population for 2030 slightly greater than that projected in the DEIR.

2. ANNUAL AGGREGATE NEED A California mining summary issued in May 2008 stated that there was a 16.6% decrease in aggregate production from 2006 to 2007, due partly to decreased home construction. This is consistent with USGS data and projections by The David Chereb Group (a construction materials forecasting company) that show for the US as a whole there was a significant downtrend in demand for cement beginning in 2006 and extending into 2008. The recent economic downturn will almost certainly result in even further decreases in aggregate demand for some time to come.

The analysis of aggregate need presented below does not account for the downturns documented above. Therefore it can be viewed as an overestimate of future aggregate requirements for Fresno County. Even so the analysis indicates that Fresno County has no need for the proposed Jesse Morrow mine in order to meet the county's aggregate needs for at least the next two decades.

Aggregate need is usually determined based on population (CGS 2006). The number used to determine aggregate requirements for Fresno County has been taken as 6.5 tons per person per year (DOC, 1999; DEIR). In 2030, assuming the same Fresno county growth rate observed between 1999-2008, the population of Fresno County would be 1280510. If one uses the average population growth rate between 1980-2008 the population would be 1414655. This latter figure is actually slightly larger than the population for 2030 projected in the DEIR. Thus the required aggregate per year in 2030 would be about 8.3-9.2 million tons, with the lower limit the more likely based on current population trends. In 2020 annual need would be 7.1-7.5 million tons.

The annual aggregate production in the Fresno region as of 1997 (DEIR) was 4.2 million tons. The recently approved Vulcan mine expansion would add 1.5 million tons annually. The soon to be operational Calaveras mine would add 1-2 million tons. The soon to be proposed Carmelita mine*, which would have far less environmental impact than the Jesse Morrow mine, would add still another 1.25 million tons. Thus the total possible annual production without the Jesse Morrow mine would be 8.0-9.0 million tons, essentially meeting the projected requirement in 2030. In fact, in prior years there would be a significant surplus in annual aggregate production capacity in the Fresno P-C region. As mentioned above, in 2020 the projected annual need for Fresno county based on the population data discussed above would be between 7.1-7.5 million tons, significantly less than even the minimum capacity of the combined mines in the Fresno P-C region without Jesse Morrow.

All of the above mines have a lifetime exceeding 25 years. Since aggregate production in the Fresno region would be more than sufficient to meet projected needs between now and 2030 without the proposed Jesse Morrow mine, Fresno county has 2 decades or more to identify sources of aggregate that would not have the significant environmental impacts of mining Jesse Morrow mountain.

3. AGGREGATE RESERVES The DEIR, quoting a 1999 CGS study, states that permitted aggregate reserves in the Fresno P-C region would be depleted by 2011, This is incorrect, as a more recent CGS study dated 2006 indicates about a 10 year reserve starting in 2007. The permitted aggregate reserve is 71 million tons (CGS, 2006). The time period over which reserves last is, of course, based on projected population growth and associated aggregate needs as described above.

In any event, simple calculation shows that recent additions to the permitted aggregate reserves in Fresno County boost permitted aggregate reserves to well over the projected 2030 time frame. Vulcan is a 50 year project with capacity of up to 2.5 million tons annually. Calaveras mine is a 30 year project with capacity of 1-2 million tons annually. Therefore there are 125 million tons of additional reserve from Vulcan, and 30-60 million tons additional reserve from Calaveras. Adding these to the 71 million tons given in the CGS 2006 report (minus some 3 years of usage since 2006) gives a reserve in excess of 200 million tons. If the soon to be proposed Carmelita gravel mine referred to earlier is permitted for the requested 80-100 year lifespan and 1.25 million ton annual production, there would be a further additional 100-125 million ton permitted reserve, bringing the total permitted reserve to over 300 million tons.

Based on projections using the US Census Bureau population curve discussed previously, the total aggregate demand from the year 2007 to 2030 would be 168-177 million tons. These numbers are obtained by determining the population at each year between 2007 and 2030 for the two different growth rate curves described previously, multiplying by the 6.5 tons per person per year requirement, and summing the annual requirements. Comparison with the permitted reserves identified above shows that there is adequate aggregate reserve to meet the County's needs for over 2 decades, and probably beyond, without any contribution from the proposed Jesse Morrow mine.

CONCLUSIONS

1. The aggregate from the proposed Jesse Morrow mine is not essential to Fresno County needs. In fact, aggregate from this mine would be surplus to projected needs, and therefore does not warrant overriding consideration of the unavoidable environmental impacts that would result from operation of this mine.
2. There is no guarantee that aggregate from the Jesse Morrow mine would be used locally because: a) less environmentally harmful adequate local sources already exist or may soon exist; b) given the evident surplus in aggregate supply over needs of Fresno County the financial incentive would then be to ship aggregate outside the county, with all the air pollution impacts that would entail; c) the county has no means to prevent aggregate developed at Jesse Morrow from being trucked outside the county.
3. Permitting and mining the Jesse Morrow mine at this time would likely deplete future aggregate reserves for the local area, not increase them, since surplus aggregate production would almost certainly be shipped beyond Fresno County.

* The owners of this proposed mine are prepared to develop it quickly to operational status.