How Many Rock Mines Does Lee County Need?
Testimony by Donald F. Eslick
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As a long time participant in the DR/GR planning process I believe that the citizens of Estero and Lee County are not "anti-mining" but rather support setting aside that amount of DR/GR land that is necessary for our share of the future limerock needs of the southwest Florida market while avoiding designation of far more land for mining than will ever be needed by our county and region.

Finally the citizens of Estero and Lee County support the recommendation of the Lee County's Density Reduction/Groundwater Resource (DR/GR) Advisory Committee, of which I was a member, to limit mining in the DR/GR to the Alico Road corridor, the area of the DR/GR where the vast majority of our existing mines are located and where Alico Road has been constructed as an industrial roadway, capable of handling the heavy truck traffic that is generated by this industry.

This recommendation includes extracting the maximum limerock resources from all the mines that have already been approved by the County plus the less environmentally sensitive sections of Florida Rock #2, a very large mine that has been in the approval process for over a decade,

Appendix B of the Dover Kohl Report provides the most thorough analysis of the supply and demand for aggregate in Southwest Florida that has ever been developed. Some in the mining industry have made general criticisms of it but have suggested only use of McGraw Hill industry reports. The McGraw Hill data, that is based upon information obtained from architects, developers and owners who are working on current projects. While this data is very useful to the industry for short term planning purposes, it projects demand for only the next five years, far too short for long term DR/GR planning needs.

Most of the following is based upon the Dover Kohl Report as supplemented by recently released information about new sources of regional aggregate supply.

1. Existing permitted mines in the DR/GR contain 13,496 acres of which 7,645 acres are mineable;

2. Between 1980 and 2006 3,597 acres out of the 7,645 acres have been mined for rock. This 26 year effort resulted in 190,642,518 tons, or 7,332,405 tons per year during this 26 year period

3. According to Dover Kohl Lee County's existing permitted mines contain another 3,576 acres of land for future limerock extraction, almost exactly as many acres as have been mined during the last 26 years. Because the limerock in these areas is deeper than the areas already mined, these lands contain an estimated 205,424,604 tons of limerock for future extraction or about 108% the amount mined during the last 26 years

4. There is a rough correlation between the amount of aggregate produced annually in Florida and the State's permanent population. This relationship produces a ratio of 9 tons of limerock products consumed each year per permanent Florida resident.

   The Dover Kohl Report suggests that this methodology overestimates the demand for limerock inasmuch as the existing permanent residents do not need new housing and, unlike new residents, are not generating increased demand for workplaces, retail establishments or infrastructure, but rather for maintenance and rehabilitation of these existing facilities… a much smaller need.

5. The amount of aggregate mined in Lee County annually between 1980 and 2006, 7,332,405 tons, when divided by 9 tons per permanent resident would supply 812,000 southwest Florida residents. During this period all of southwest Florida, from Sarasota to Collier County averaged 1,014,809 permanent residents. Thus since 1980 Lee County has been supplying 80% of the region's total demand for limerock products.

6. In 2005 Lee County had 37.4% of the region's population…thus between 1980 and 2006 over half of Lee County's limerock production was exported to other counties in the region.

7. In order to develop a more accurate estimate of future demand for limerock Dover Kohl assumed that 25% of future limerock demand is for maintenance and rebuilding and 75% for new development or growth.

8. 550,036 dwelling units were built in the six county southwest Florida region between 1980 and 2006. Based upon University of Florida BEBR population forecasts an estimated 575,045 dwelling units will be constructed in these counties between 2007 and 2030, 5% more than in the last 26 years.

9. After weighting the growth factor and the rebuilding factor and adjusting for the fact that the unused portion of the already permitted mines have a thicker layer of limestone, Dover Kohl estimates that 233,933,872 tons of limerock would be needed for Lee County to continue to supply 80% of the total demand for all six counties in southwest Florida for the period from 2007 through 2030. In other words the DR/GR mines that are already permitted are capable of supplying 80% of the Dover Kohl estimated limerock demand for all seven southwest Florida counties for the next 19 years, through 2027. All of this assumes that the increase in gasoline prices doesn't impact our way of life in ways that cause us to use less limerock for our roads, homes and businesses…a highly unlikely assumption.

10. Much additional limerock supply will likely be forthcoming from Florida Rock Mine #2 if it ultimately gains all the necessary approvals that Florida Rock has been seeking since 1994. This land includes 4,839 acres of which 2,471 acres are presently considered mineable. If approved at this level Florida Rock #2 would be by far the county's largest mine. Approval of this mine as presently configured would increase the available permitted DR/GR mining capacity by 69% and add 13 years to our ability to supply 80% of the region's

demand. Even if this mine is scaled back somewhat, its approval will easily provide, in conjunction with already permitted DR/GR mines, 80% of the limerock demand for all of the Southwest Florida region through 2030 and extend the ability of these mines to supply the region, if necessary, for many years thereafter.

11. There are several new sources of limerock supply that are coming online that will reduce the need for DR/GR mines to continue to be the dominant supplier of aggregate for the seven county region.

12. The future demand for aggregate in southwest Florida is likely to be supplied by some or all of the following new limerock sources:

    a. Collier County: Dover Kohl estimates that Collier County will consume 22.7% of the region's limerock production between 2007 and 2030. Collier has substantial limerock reserves and according to Dover Kohl has three large limerock mining proposals that are working their way through the approval process and should contribute greatly to satisfying the 2.6 million ton demand of the county for the decades to come. Rinker's Hogan Isle mine proposal is planned to produce 3.8 million tons per year for the next 15 years.

    b. Sarasota County: According to Dover Kohl Sarasota County will consume 22.6% of the region's limerock production between 2007 and 2030. Much of the estimated future Sarasota County demand of about 1.9 million tons per year will probably be supplied by rock imported through the Manatee County Port Authority and the Port of Tampa.

    The Manatee County Port: Florida Rock was the first aggregate tenant of Port Manatee. In 2000 Vulcan Materials, now the parent company of Florida Rock Industries, entered into a long term lease with Port Manatee. Since that time it has built a construction aggregates distribution facility at the Port that it uses to distribute high quality limestone produced by an affiliated company on Mexico's Yucatan Peninsula. Aggregate imports are projected to grow from 305,000 tons this year to nearly 1.3 million tons in 2030. The Port Authority estimates the following distances to some of their southwest Florida markets: the City of Sarasota…14 miles; Arcadia …54 miles and Punta Gorda… 68 miles.

    The Port of Tampa: During 2008 the Port estimates that it will process 2.3 million tons of aggregate. By 2013 the Port estimates that its aggregate leasehold customers will process almost 9 million tons, an annual increase of nearly 7 million tons. If rail facilities are developed all of southwest Florida is included in the Port's planned market. While truck transport is being used their market would extend to the City of Sarasota.

    The two Ports estimated increased supply of 8 million tons per year is over four times the expected annual demand of Sarasota

County.

c. Glades and Hendry Counties: Dover Kohl estimates that Glades and Hendry counties will consume only 2.26% of regional limerock production between 2007 and 2030. In April the Palm Beach County Board approve two rock mines south of Lake Okeechobee totaling 11,000 acres that, if they are successfully developed, would provide a convenient source of supply for these two counties for decades to come. The larger of the two mines, Vulcan Industries Lake Harbor Quarry, is located only about 5 miles east of the Hendry County line. The plan for this mine is to excavate 100 acres per year for 71 years.

d. Charlotte County: Dover Kohl estimates that Charlotte County will consume 9.7% of the region's limerock production between 2007 and 2030. The County's limerock needs could most efficiently be supplied by mines located within the County. The closest Palm Beach County mine is located only about 65 miles from the Babcock Ranch mega-development.

e. Desoto County: Dover Kohl estimates that Desoto County will consume only 1.9% of the region's limerock production between 2007 and 2030. Its supply can most efficiently be met by the Port of Tampa, the Manatee County Port or by the limerock mines in Charlotte County.

Port of Tampa
Aggregate Expansion Plans

Early this year the Port of Tampa made a presentation to the State Aggregate Review Task Force detailing their present and planned aggregate import capacity. The following summarizes their report:

- During 2008 the Port estimates that it will process 2.3 million tons of aggregate
- By 2013 the Port estimates that its aggregate leasehold customers will process almost 9 million tons, an annual increase of nearly 7 million tons
- The Port's existing aggregate tenants are Florida Rock, Martin Marietta, Kinder Morgan, Vulcan and Gaetano Cacciatore
- Aggregate firms in process of developing sites in the Port include Rinker, Andino Cements, Trinity, Titan Cement, and Cemex
- The Port's aggregate imports come from the Canadian province of Nova Scotia, the Yucatan Peninsula of Mexico, the Dominican Republic and the Bahamas
- The Port is spending $10 million on dredging in support of these aggregate expansion plans
- The Port estimates that this expansion will require an additional 3,300 truck trips a day, in and out of the Port, thus requiring some road and rail improvements
- The Port has identified its aggregate market:
    - if served by rail…all of south and southwest Florida
    - if served by truck…all of central Florida, including the area around the City of Sarasota

Port Manatee
Aggregate Expansion Plans

In February 2008 the Manatee County Port Authority adopted an updated master plan for this 1,100 acre Port. The following information was provided by the Port's consultants earlier this year:

- Florida Rock was the first aggregate tenant of Port Manatee. In 2000 Vulcan Materials, now the parent company of Florida Rock Industries, entered into a long term lease with Port Manatee. Since that time it has built a construction aggregates distribution facility at the Port that it uses to distribute high quality limestone produced by an affiliated company on Mexico's Yucatan Peninsula.

- The Port's aggregate imports have increased by 14% over the last 5 years with 84% of the aggregate coming from Canada and 16% from Mexico.

- Aggregate imports are projected to grow from 305,000 tons this year to nearly 1.3 million tons in 2030.

- The Port Authority estimates the following distances to their markets:
    - Sarasota ….14 miles
    - Arcadia…54 miles
    - Punta Gorda…68 miles

- The Port's Terminal Railroad has 8 miles of track and two switch engines that connect to the adjacent CSXT rail line.

Recent Palm Beach County Mining Approvals

South Bay Quarry (Rinker Materials)
3,773 acres
Mining operation: 3014 acres to a depth of 20' (no tonnage or volume figures provided)
Duration: 37 years
Aggregate removal:
10% Trucks (524 trips per day)
90% Rail

> "**APPLICATION SUMMARY:** Proposed is a Class A Conditional Use for a Type III B excavation on a 3,773.42-acre parcel of land in the Agricultural (AP) Zoning District. A Type III B excavation allows extensive processing of materials on site and the use of explosives to extract the material. The proposal is to excavate 80% of the property creating a series of lakes covering approximately 3,013.95 acres in land area in three phases. The excavation is proposed to proceed at a constant rate over a period of 37 years, commencing from 2009 to 2045, and extracting the aggregate at a rate at a maximum of 100 acres a year. The limestone aggregate will be marketed for road building and construction."

Lake Harbor Quarry (Florida Rock - Vulcan Industries)
7,629 acres
Mining operation: 6,961 acres to a depth of 20' (no tonnage or volume figures provided)
Duration: 71 years
Aggregate removal:
100% Rail (so market area would be South & Central Fla. – east coast)

> "**APPLICATION SUMMARY:** Proposed is a Class A Conditional Use, to allow a Type III B Excavation on a 7,629.19 acre parcel of land in the Agricultural Production (AP) Zoning District. The proposal is to excavate approximately 6961.17 acres of sand and limestone, and creating two large reservoirs. The excavation is proposed in 2 phases and to proceed at a constant rate of no more than 100 acres per year over the next 71 years until the estimated completion date of 2081.
>
> The proposed mining activity would provide aggregate materials for the building industry along the east coast and central portion of Florida. The rock will be shipped by rail connection to multiple points of destinations along the central and east coast of Florida. The method of extraction will include drag lining, dredging, earthmoving equipment, and extensive processing of the material on site. Extraction would also include the use of explosives and heavy industrial equipment to crush, sift and transport the material by rail."

Figure 1

Everglades Agricultural Area - Existing and Proposed Mines