The Impending Asphalt Plant Crisis in North San Diego County

Abstract:

By 2008, the current mining and hot mixed asphalt operations in North San Diego County will no longer exist. The depletion of mining reserves and exhausted permits in conjunction with the lack of support from the County and the Cities to provide affordable and economically viable sites to mine aggregates and operate asphalt plants leaves a bleak future for the availability of local and affordable aggregates and construction materials. As a consequence, costs for asphalt used in paving will increase, compounded by much higher trucking costs and more frequent inspector-rejection of materials that will be too old to put into place. The requirement for increased trucking, both of raw mining materials from out of area, and longer distances traveled in the delivery of hot asphalt materials (increasing from 30 miles to as much as 100 miles, one way) will have a potentially significant impact compounding local freeway gridlock and air quality. Limited supplies will put cost pressures on the industry and will make supply issues more common, especially for all but the largest projects.

The rest of San Diego County will also be noticeably impacted by this crisis as South County materials are diverted to meet North County needs.

The Background

Rock and sand are non replenishable natural resources and are being rapidly depleted in California, particularly in San Diego County. The two major suppliers of non-recycled aggregate rock and sand materials – and of asphalt – are Hanson Aggregates and Vulcan Materials. Both are well-capitalized nationwide firms with significant mining interests and investments in the industry. Hanson Aggregates is the largest aggregates supplier in the world, and Vulcan is the largest supplier of construction aggregates in the United States.

Moreover, because of neighborhood NIMBYism (“Not In My Back Yard”), municipalities are reluctant to grant Conditional Use Permits for asphalt batch plants and existing batch plant permits are expiring rapidly. The existing asphalt operations in the County will continue to be effected by the NIMBYism unless the Cities and County support the industry and the original conditions granted. Even though asphalt and aggregate manufacturers are granted permits to operate by the Cities and the County, the encroachment on their operations by development forces the manufacturing businesses to continually mitigate the conditions granted through the permit. Ultimately, cost structures become imbalanced, hours of operations are reduced and the availability and supply of affordable materials have vanished from the community.

Current **asphalt batch plants going off-line**, not to be replaced, are the following:

- Vulcan's Pala mining and asphalt plant (North County), will close in January 2005. The Pala tribe will not renew the lease/permit beyond the consumption of currently stockpiled materials (which will be depleted in early 2005) and will not allow the import of additional materials which might allow the plant to operate an additional 6-8 months. Annual Capacity has been approximately 200,000 to 300,000 tons.
- Hanson's San Marcos mining and asphalt plant (North County), will close in 2008 when the conditional use permit expires (there is no opportunity for extension). This plant already has limited hours, 7:00 am to 5:00 pm, Monday through Friday. Annual Capacity is currently sufficient to supply the current market demand, but will be lost in about three years.
- Vulcan Materials and Hanson Aggregates joint venture at Sloan Canyon plant has stopped mining for sand and future extension of permitting has been impeded by neighbors and aggressive environmental constraints.
- Vulcan's Mission Valley mining and asphalt plant (South County) has a Conditional Use Permit that extends to the end of 2013. This location is on leased land. Due to the pressures of residential neighbors and the value of the land for commercial/residential development, the likelihood of a CUP renewal is unrealistic. The annual capacity is currently sufficient to supply the current market demand in the surrounding area.

The following plants will be the **only known remaining aggregate or asphalt resources** within San Diego County to economically supply North San Diego County in the very near future:

- Hanson Aggregates:
  Miramar HMA plant (I-15 and Miramar Way)
  Carroll Canyon Aggregate plant (Miramar Road and Camino Santa Fe)
  Santee Aggregate plant (52 and Mast Blvd)
  Lakeside Aggregate plants (Hwy 67 and Slaughterhouse Canyon)
- California Commercial Asphalt Corporation:
  Miramar HMA plant (Miramar Road and Camino Santa Fe)
- Vulcan Materials:
  Carroll Canyon mining and asphalt plant (Black Mountain Road and Maya Linda)
  Romoland asphalt plant (Ethanac Road and Hwy 215, Riverside County)

Future projection for the County is continued steady development and growth. The SANDAG website provides population/density statistics to corroborate growth projections on a per capita or population basis by City. The bigger issue is that the projected steady growth trend is in complete contradiction to the continuing depletion of natural resources and reserves. Asphalt batch plants are closing, with virtually no consideration by local governments as to how to mitigate the crisis. Individual plant-by-plant decisions and the lack of municipal cooperation for new plants are now impacting construction materials for future roads, streets, freeways, rail, housing, schools and commerce.

The closing of Vulcan's Pala asphalt plant will pull approximately 200,000 tons from the North County market. Vulcan indicates it will try to put back 75,000 tons into the North County marketplace from the more distant Carroll Canyon and Romoland plants. Hanson Aggregates indicates it will also try to replace the shortfall by increasing their shipments from their Miramar Plant. CCAC will similarly try to fill the gap. But even with these industry mitigation measures, there could be an estimated 50,000 ton per year shortfall beginning in 2005. Some of the shortfall may be partially filled from the Orange County area, especially a plant in Irvine, which may try to move asphalt into the Oceanside and Carlsbad markets.

However all of these mitigation measures come with serious secondary impacts.

Secondary impacts

Traveling greater distances to deliver asphalt not only increases trucking costs and impacts existing freeway gridlock, but also threatens cost impacts by significantly increasing inspector-rejected asphalt loads. Rubberized hot asphalt, used extensively by the City of Carlsbad, for example, must meet minimum heat specifications. These specifications pose an approximate "shelf life" of about two hours on the hot asphalt. Bringing hot rubberized asphalt or conventional hot asphalt from as far as 50 or more miles pushes specification limits and will significantly increase rejected loads. These continual material rejections will further exacerbate shortages and project costs.

Additionally, smaller construction paving projects (and smaller cities and construction firms, generally) will be further impacted by more frequent, temporary unavailability of asphalt product, as larger paving projects place month-long demands on the few remaining batch plants. Requirements for orders as much as thirty days in advance will result in additional delays when the project is not ready for the asphalt the day it has been scheduled and a new delivery date is not immediately available. As a consequence, construction costs generally will increase due to continuously fickle availability of asphalt materials resulting in project disruptions and delays and their attendant costs to the construction industry, which will pass through to public agencies and developers (and thus the general public).

Impact of recycled materials

An increasing use of recycled materials can partially offset the materials shortages. Existing suppliers like Escondido Sand & Gravel and J. Cloud, Inc. are already supplying such recycled materials.

The use of recycled materials will continue to grow. As natural resources are depleted, the community will demand greater use of these products. The County of San Diego has authorized utilizing more of these products i.e. CMB/Crushed Miscellaneous Base or "Recycled" Class 2 Base to be engineered and used in their projects. RMC and HMA suppliers are working through their associations to introduce higher use of recycled concrete and asphalt products to be allowed in the manufacture of their products.

However, any expansion of utilization of recycled resources triggers the same issue: no one wants a recycling site in their neighborhood. There are existing examples of recycle sites that are working successfully within certain cities without impeding the quality of life of the local community or residents. Without these facilities and products, we will be forced to drive further distances to find dumpsites and or recycled materials.

Also, we must remember that crushed recycled material needs "raw" broken asphalt and concrete that must be found within a reasonable proximity to a crushing plant. Without a strong recycling attitude, it is quite possible and probable that demand will far outstrip supply.

Moreover, even a successful expansion of recycled resources does not mitigate the asphalt batch plant crisis, itself.

What it takes

It takes as much as 200,000 tons of aggregates to build one mile of an eight-lane highway or 50,000 tons for a simple two-lane street.

Construction Aggregates is the highest tonnage and highest dollar value commodity produced in California. Industry reports that in 2001, 180 million tons were produced throughout California with a value of 1.6 billion dollars.

The approximate distribution of construction aggregates in California is as follows:

- 45% of construction aggregates are used for industrial, commercial and residential construction
- 35% of construction aggregates are used in highways and street construction
- 20% of construction aggregates are used in heavy building construction

Approximately half of the total tonnage of aggregates is used in Public Works projects in California, which is paid for by public tax monies.

Both the conservation of rapidly diminishing local natural resources and the conservative management of precious public tax dollars require that public officials and industry to work together more closely in two key areas set forth below.

Immediate actions needed

First, large users such as local cities need to work with EGCA and the industry to refine the specifications for aggregate and sand materials to better comply with what is actually available locally. These "as commercially produced" products will assure usage more in harmony with supply, keep costs lower for a longer period of time, and reduce import demands in the short run. A ton of aggregates doubles in cost when it is hauled a distance of greater than 35 miles. Manufacturers are geared up to use the Caltrans spec. Green Book standards should be revised to conform to this common spec, particularly in the area of trench, backfill and pipe underlay requirements. Consistent specs will lower manufacturing costs, which will lower product and project costs. Cities and Agencies should work directly with local suppliers to determine the quality of these local material resources prior to specifying their requirements and putting the project out to bid. There would be significant savings to the City or Agency in material costs and availability.

Second, North County cities need to work together to identify one or two potential three-to-five acre sites on which new asphalt batch plants can be located. Because the entitlement and environmental regulation processes can take two to five years, this effort needs to begin immediately. A recent effort by the City of Escondido (locating a plant on City-owned property) was killed in the eleventh hour by a small band of vocal citizens with a NIMBY approach. The reality of NIMBYism should not be allowed to cloud the vision of local municipal leaders. Industry can provide a visually low-impact site not noticeable to passersby, but one where a gate or door opens, a truck exits or enters and the gate or door closes behind it.

END

Sources: This EGCA White Paper was compiled by consulting staff and industry affiliate members of the Engineering and General Contractors Association (www.egca.org) in San Diego based on best available data and the projections of the participating firms. It may be photocopied, reprinted and/or direct quotations used by any persons or entities so long as they properly credit the Engineering and General Contractors Association of San Diego and reference the EGCA website.