

The Village News

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The November 9 board meeting of the San Diego Association of Governments included a presentation by Crystal Howard of EnviromINE on the need for more construction aggregate production in San Diego County.

"It's going to affect everybody," said San Diego County Supervisor Ron Roberts. "We have increasing demand with falling supplies and reserves, and we have a political system that makes it difficult if not impossible to be able to create these things."

Construction aggregate is sand, gravel, and crushed stone which is processed from naturally-occurring minerals. Asphalt and concrete consist of 80 to 90 percent sand and crushed rock. "This is used in our highways, hospitals, buildings, whatever," Howard said.

San Diego County uses 5.4 tons of aggregate per person each year. One lane-mile of highway requires more than 21,000 tons of aggregate; since a single truck can carry 25 tons, more than 800 truckloads are required for that lane-mile. The average home utilizes 90 tons of aggregate while the average hospital expends 15,000 tons.

Many of the sand and gravel quarries are along rivers, and other sources include granite rock and metavolcanic rock. Since 1990, production in San Diego County has not kept up with demand. "The number of quarries has been decreasing," Howard said.

San Diego County had 49 quarries in 1970 and 48 quarries in 1980 but only 24 by 1995 and 14 by 2005. Due to permit expirations and supply exhaustion, the U.S. Geological Survey predicts that San Diego County will have only 11 quarries in 2010 and five by 2030.

"As each quarry closes, the other quarries have to increase production," Howard said. "We could run out of reserves sometime after 2011."

The five anticipated quarries in 2030 include the National Quarries site in Bonsall. In 2006 the County of San Diego's renewal of the major use permit for National Quarries limited truck traffic to 32 vehicles per week, which National Quarries representatives felt was insufficient. Permitted aggregate reserves in the county have declined from 430 million tons in 1980 to 352 million tons in 1995 to 202 million tons in 2005, and the predictions anticipate 117 million tons of permitted reserves in 2010 and 5.3 million tons in 2015.

The 50-year demand is expected to exceed 1,150 million tons.

Additional reserves exist if companies are allowed to mine aggregate at a particular location. "It is difficult to get a site permitted," Howard said. "When we go out to find another site, we meet different challenges such as land use constraints."

Land use constraints include military bases and habitat areas, including wetlands. "The industry is bumping up against land use constraints," Howard said. "The permitting process has become time and cost prohibitive."

Opposition extending the permitting process often arises both from environmentalists and from nearby residents. "There's always going to be a lawsuit to challenge the EIR [Environmental Impact Report]," said Gary Nolan of Granite Construction, whose projects include the planned Rosemary's Mountain quarry in Pala and the planned Liberty Quarry just north of the county line in Temecula.

The permitting process for Rosemary's Mountain has taken 18 years. "Rosemary's quarry's very close to being open, but we're still working on permit conditions," Nolan said. "As you satisfy those conditions, that's what takes the time."

The remaining Rosemary's Mountain conditions to be satisfied include Army Corps of Engineers (Section) 401 permits and purchase of suitable mitigation land.

The anticipated site approval timeline totals 48 to 66 months. Property acquisition is expected to be a six-month process, preparation of a reclamation plan and application is projected to total 12 to 18 months, the application and environmental review is estimated to take between 24 and 36 months, and condition compliance adds six months to the expected process.

The realistic timeline contrasts significantly with the anticipated version. Although Rosemary's Mountain has taken the longest to go through the permitting process, the Jamul Quarry was a seven-year process before that proposal was abandoned since the applicants could not satisfy the conditions of approval. The Otay Hills quarry process has already taken seven years and is ongoing, and the JB Sand application along the San Luis Rey River took four years before the project was denied.

"It's pretty risky. You don't even know if you're going to get a permit," Howard said.

The shortage of locally-produced aggregate requires imported aggregate. The transportation costs for imported aggregate are approximately 25 cents a mile for each ton of aggregate. The increased demand also depletes the reserves of quarries in Riverside and Imperial Counties, which would require transportation from even further distances.

The importation of aggregate also creates additional truck traffic. "There are advantages of permitting quarries within the areas they serve," Howard said. "We reduce greenhouse emissions just by taking truck traffic off the road."

If no new sites are permitted, the predicted CO2 greenhouse gas emission in 2020 would be 60,000 tons over the amount predicted if additional sites sufficient to meet 85 percent of the county's demand are permitted. That predicted differential would increase to 80,000 tons in 2030 and 100,000 tons in 2050. Recycled materials provide some conservation, and 80 percent of road asphalt is currently recycled, but recycled aggregate material cannot be used for all construction. Even if all concrete and rubble were recycled, it would represent only five percent of the total aggregate produced.

Howard encouraged the 18 cities in SANDAG, as well as the County of San Diego, to adopt mineral reserve zones. Howard's recommendations also included zoning ordinances classifying all mineral resource lands for extractive use and stipulating a requirement for replacement of mineral resource land, similar to habitat replacement policies, if approval for a land use would preclude future aggregate development on that land. The recommendations also included designating additional lands for resource extraction and streamlining permit processes. "I think the county has plenty of resources to permit," Howard said.

"There are areas in the county that can be producers of construction aggregate," Howard said. "I challenge all city officials, county officials, to help the planning process to be more positive."

San Diego City Council member Jim Madaffer suggested the possibility of SANDAG forming an ad hoc committee. "Otherwise it's just going to cause a problem for all kinds of things," he said. "It is important that we do what we can to encourage local jurisdictions to do what they can."

Although neither the 2003 fires nor the 2007 fires destroyed any homes within the El Cajon city limits, El Cajon mayor Mark Lewis works as the waste management coordinator for the recycling section of the County of San Diego's Department of Public Works. Lewis wondered whether concrete foundations removed from fire-damaged homes could be recycled rather than destroyed.

Such recycling is also contingent upon available facilities. Escondido mayor Lori Holt Pfeiler noted that a local facility is accepting concrete from Escondido's destroyed homes and may consider taking concrete from homes destroyed elsewhere.

Lewis also noted that some producers are happy with the high prices local aggregate currently commands. He also warned that increased aggregate through governmental persuasion might have economic effects other than lower commodity prices. "When government gets involved, sometimes costs go up," he said.

Roberts noted that SANDAG, whose only area of actual authority is the allocation of the region's highway funding, is one of the county's largest users if not the largest user of aggregate material. "This is vital to our mission," Roberts said.

"It's kind of a wake-up call," Roberts said. "We have a strong interest not only for environmental reasons, which are significant, but also for cost reasons."

Roberts encouraged SANDAG to develop ways how that organization might help alleviate the regional shortage. "Something is dropping through

the cracks," he said. "Nobody is responsible because we're all responsible."

Although Del Mar City Council member Crystal Crawford suggested the possibility of incentives or even requirements for contractors to use locally-produced aggregate, California Department of Transportation District 11 director Pedro Orso Delgado noted that such a requirement would increase costs.

The San Diego Unified Port District is an advisory member of the SANDAG board, and Port District representative Sylvia Rios noted that the Port of San Diego receives 400,000 metric tons per year of sand and 500,000 metric tons per year of bulk cement sent by barge from Ensenada. She believes that the port's annual capacity is 800,000 metric tons of sand and 1,000,000 metric tons of cement. "We do have a potential to increase that capacity," she said. "There is vast potential for the Port of San Diego."

Aggregate from inland Baja California can't be transported effectively by barge, but conveyor belt transport between Mexico and Imperial County or eastern San Diego County is also being explored.