

DEPARTMENT OF TRANSPORTATION

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*Flex your power!
Be energy efficient!*

September 30, 2008

Mr. Gary Hambly
President/CEO
California Construction and Industrial Materials Association
1029 J Street, Suite 420
Sacramento, CA 95814

Dear Mr. Hambly:

In February 2006, I sent a letter to our transportation partners stressing the need for permitting new aggregate resources within California. As you are aware, these materials are one of the critical resources required to meet current and expected infrastructure improvement needs for transportation improvements, flood protection, and public and private facilities in California. That is why we agree that it is critical to increase California's permitted aggregate reserves.

In the last two years, with the assistance of your organization and staff, the Department of Transportation (Caltrans) has taken a number of steps to promote aggregate resource needs throughout the State. Caltrans and the Business, Transportation and Housing Agency have provided decision makers with information on the need to increase California's aggregate resource supply and will continue to do so in the future.

To date, we have made presentations to several local decision makers throughout the State. Caltrans has also coordinated with the construction industry, public decision makers, and government officials, in discussing potential opportunities to increase California's aggregate resource supply. Caltrans' work and partnerships in the *GoCalifornia* Construction Industry Capacity Expansion (ICE) Action Plan have also played a significant role. This work included several workshops and meetings with our partners, including the ICE Workshop and Materials Summit held in April of this year. Your participation helped to frame the summit dialogue with those that are involved with the application permit process in order to identify the key issues that arise when attempting to permit a mining facility. We will continue that collaborative effort. Other collaborative efforts have included developing cooperative partnerships with the California Department of Conservation and the U.S. Department of Transportation, Federal Bureau of Land Management, on mining, reclamation, and permitting issues.

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Caltrans is also providing grant funds for the Regional Blueprint Planning Grant Program to assist and promote regional collaboration and integrated planning strategies. This program has enabled regions to plan their future growth while identifying and preserving:

- Mining and material resources.
- Farm and agriculture lands.
- Natural resources.
- Greenbelts and buffer zones.

While all of these efforts have helped to gain the approval of new aggregate resources at selected locations in California, we are still well below the amount of reserve required to address the expected infrastructure needs over the next 50 years. As we deliver infrastructure improvements with the voter approved Proposition 1B bond funds, I want to urge you to continue to examine methods to increase the aggregate resources within our State. Enclosed for your use is an economic assessment of aggregate supply prepared by our Division of Transportation Planning's Office of Transportation Economics.

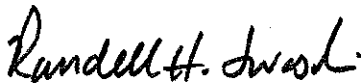
This assessment provides information on the potential economic, social, air quality, and environmental impacts when transporting aggregate materials for infrastructure projects farther than 35 miles each way. I believe this is a good source of information for your members, as well as decision makers.


Lastly, I have encouraged our local Caltrans planning offices to make themselves available, upon request, to speak at public meetings and hearings in areas where the aggregate reserves are sorely diminished, and where the growth and infrastructure needs are expected to be significant. We encourage the development of new materials sources for aggregate reserves that are identified within California, but we also recognize that the permitting of any new mining locations must be done in accordance with federal, State, and local laws and regulations while being environmentally sensitive.

Please share this information with your membership.

Thank you in advance for your assistance in helping Caltrans to improve mobility across California.

Sincerely,



 WILL KEMPTON
Director

Enclosure

c: Patrick D. Leathers, The Gualco Group, Inc.

Construction Aggregate Supply Limitations Some Estimates of Economic Impact

- Since transportation is a major element in the cost of delivered aggregate, and the cost depends on the distance of the delivery, permitting new aggregate sites that are closer to construction projects would lead to shorter haul distance and minimize transportation/shipping costs. According to the industry, shipping costs for aggregates can outweigh production costs if the material is trucked more than 20 miles.¹
- A recent University of California, Berkeley, study² confirms that the most likely, and dominant effect of opening new sites for the production of construction aggregates would be *a reduction in truck miles of travel for hauling aggregates* (i.e., the new quarry will be located closer to the users to minimize transportation costs), *thus a reduction in emissions from trucks*.
- According to the California Geological Survey (CGS), California has an estimated **74 billion tons** of aggregate resources underlying mineral lands classified by the State Geologist. However, only about **5.3 billion tons** of aggregate (7.2 percent) have actually been permitted by cities and counties for mining activities. Permitting of mining sites can often take between five and ten years and longer for approval. At the current rate of production of 177 million tons per year, the permitted reserves will be exhausted in about 30 years.
- According to the CGS, the State produced 178.6 million tons of construction sand and gravel in 2006, valued at \$1.5 billion. The production of crushed stone in 2006 was estimated at 58.73 million tons, valued at \$481.7 million. According to the same source, California imported from Canada and Mexico about 3.2 million tons of sand and gravel during 2006, a fairly small portion of the total use.
- The total aggregate production (or demand) in 2006, therefore, exceeded **237.3 million tons** (178.6 + 58.73). This production level would *generate about 9.5 million truckloads* (at 25 tons per truck), or a *total of 19.0 million truck trips a year* (including empty trucks returning to the aggregate sites) related to the transportation of construction aggregate in the state.
- Truck transportation accounts for about 99 percent of shipping aggregates for 40 miles or less.³ However, according to Teichert Construction and West Coast Aggregates, Inc., the average hauling distance for aggregates in California may be as high as 50 miles one-way. At an average 50-mile distance, the total aggregate-truck vehicles miles traveled would be **950 million miles** per year (19.0 million trucks x 50 miles). This would account for 4 percent of total truck trips, or 6 percent of all truck miles of travel on the State highways.
- Let us assume that permitting additional mining facilities would reduce the average hauling distance from 50 to 35 miles statewide. Using an average hauling distance of 35 miles, the total annual aggregate-truck miles of travel would be **665 million miles** (19.0 million trucks x 35 miles). The 15-mile shorter hauling distance would reduce aggregate-truck miles of travel by **285 million miles per year** (950 - 665), and annual diesel fuel consumption by **44 million gallons** (using California Air Resources Board (CARB) diesel fuel consumption rate of 0.153 gallons per vehicle mile at 55-60 mph speed).
- Based on the CARB emission factors estimates, and assuming an average 55-60 miles per hour speed, a reduction of 285 million miles of truck travel (or 44 million gallons of diesel fuel consumption) would reduce truck emissions (CO, NOx, PM10, SOx, VOC) by about **843.5 tons a year**.

¹ Therese Dunphy, "Evening the Playing Field," *Aggregates Manager*, August 2006.

² Peter Berck, "A Note on the Environmental Costs of Aggregates," *Working Paper No. 994*, Dept. of Agricultural and Resource Economics and Policy, University of California, Berkeley, January 2005.

³ Tina Grady Barbaccia, "Off-highway Transportation," *Aggregates Manager*, July 2006.

- The total transportation cost of aggregates (at \$0.10 per ton per mile) shipped 35 miles average distance throughout California would be \$1.67 billion (19.0 million trucks x 25 tons x 35 miles x \$0.1), and over \$2.38 billion if shipped an average distance of 50 miles. The statewide transportation cost savings of reduced hauling distance would amount to **\$710 million a year** (or a 30 percent cost savings).
- The California Department of Transportation (Caltrans) estimates that on average, about \$2.55 billion is spent on state and local capital outlay projects each year, and on average, aggregates account for **8-10 percent** of total project costs, or about **\$250 million** annually. A 30 percent increase/decrease in shipping cost of aggregates would increase/decrease the total annual project costs by **\$75 million per year**.
- The reduction in aggregate-related truck miles of travel would also reduce traffic congestion and traffic accidents on roads, but these impacts would be difficult to estimate. An additional benefit from truck trip reduction would be reduced pavement deterioration. Caltrans expects to spend about \$700 million annually on pavement rehabilitation projects. Assuming trucks account for 60 percent of the pavement damage on the state highways, and aggregate-trucks on average account for 5 percent of all truck travel on the State highways, the trucks shipping aggregates would account for about **\$20 million** of cost savings in pavement rehabilitation each year.
- Project delays due to lack of aggregate supply in the area would also result in project cost escalation and reduced user benefits (reduced travel time and increased accidents) that would have otherwise been generated. A delay of 10 percent of the projects (or \$255 million in capital outlay expenditures) for one year would increase the cost of the State and local capital outlay program by **\$13 million a year** (at 5 percent average cost escalation factor).
- Generalizing, and pro rating, the user benefits estimated for the 2006 Interregional Transportation Improvement Program (ITIP) projects, a delay of 10 percent of the capital outlay program for one year would also cost California about **\$97 million** in increased roadway congestion and traffic accidents.

In conclusion, permitting and expansion of additional construction aggregate supply sources in California suggests potentially significant benefits and cost savings that would provide a high payoff and worthwhile effort for the State to undertake. Again, those benefits include:

- A reduction in emissions from trucks with a reduction in truck miles of travel for hauling aggregates.
- A shorter hauling distance which would reduce aggregate-truck miles of travel and the cost of the materials.
- A reduction of pavement deterioration from fewer truck miles traveled, which would allow rehabilitation resources to be available for other critical maintenance improvements.
- A reduction in project delays due to lack of aggregate supply in the area, which leads to increased project costs.
- A reduction in aggregate-related truck miles of travel would also reduce traffic congestion and traffic accidents on roads.

Office of Transportation Economics
 Division of Transportation Planning
 California Department of Transportation
 March 2008