

# Rock Out

*Canadians to ship aggregate as L.A. grovels for gravel*

**James Rufus Koren, Los Angeles Business Journal, 11-28-11**

It sounds crazy: shipping millions of tons of sand and gravel down the Pacific coast from Vancouver to Long Beach.

But that plan, from Canadian company Polaris Minerals Corp., is based on decidedly sane assumptions: that the local construction market will pick up over the next several years – and that it will be difficult for mining companies to expand or open local quarries because of stiff opposition.

“There’s going to be a shortfall, and we’re the economical and environmentally sound transportation option,” said Bill Terry, chief executive of Vallejo-based Eagle Rock Aggregates Inc., Polaris’ U.S. subsidiary. “Strategically, we’re there.”

Southern California has plenty of sand and gravel, a key ingredient in making concrete and pavement, but the amount permitted to be mined over the next 50 years falls hundreds of millions of tons short of the expected demand over that time, according to the California Geological Survey.

That’s not likely to change soon, as it can take a decade or more to get permits to expand or start a quarry. Companies trying to do so in Azusa and Santa Clarita have run into lawsuits from environmental groups, as well as from the cities, which don’t want to deal with the dust, truck traffic and other impacts of the operations.

Without an abundant local supply, sometimes aggregate has to be transported to the Los Angeles basin from distant quarries, adding transportation costs. Eagle Rock already exports aggregate to the San Francisco area, where it’s also in short supply.

Aggregate traditionally has been sourced close to construction projects. That’s because it is expensive to transport such heavy material. Since rock and sand are cheap, delivery costs can easily be greater than the value of the material. As a result, the assumption from some in the construction industry and even California’s state geologist is that aggregate cannot be imported economically from long distances, such as Vancouver to Los Angeles.

But with projected shortages, the thinking has changed. If aggregate must be trucked more than 60 miles, shipping it 1,000 miles by sea suddenly becomes cost competitive.

“It’s economics. That’s the bottom line,” said Tom Davis of Davis Consulting Services, a Villa Park firm that advises mining and construction companies. “We’re going to start seeing more of this because it will be financially competitive.”

## **Canadian rock**

Southern California is home to plenty of quarries, from close ones in Sun Valley, to others more distant in the San Gabriel Valley and Corona, to ones even farther away in Cabazon at the edge of the Coachella Valley, some 90 miles from downtown Los Angeles.

Eagle Rock plans to haul sand and gravel from a much more distant locale: quarries on Vancouver Island. The company would use dry bulk vessels, the kinds of ships that carry iron ore and other heavy commodities.

A single ship could carry 80,000 tons of material, or about 3,200 truckloads. Because of the volume of the ships and the relative fuel efficiency of sea transport, the company said it can offer Canadian aggregate at a price competitive with aggregate trucked into Los Angeles from far-flung quarries.

Terry said his company has long-term contracts with shipping companies but would not provide an estimate of the cost of shipping aggregate to Long Beach, saying only, "We're competitive or we wouldn't be there."

A study released in January by the San Diego Association of Governments, which is concerned about the San Diego area's aggregate shortage, indicates there is a break-even point at which ocean shipping can use less fuel – and therefore likely be cheaper – than ground transportation.

Figures from that report indicate a bulk ship carrying sand and gravel along the 1,400-mile route from Vancouver Island to Long Beach would use a bit more than a half-gallon of fuel per ton. Trucks would use the same amount of fuel per ton to go about 66 miles.

Put another way, it would take about the same amount of fuel to ship 80,000 tons of sand and gravel from Vancouver Island to Long Beach and to truck the same amount of aggregate to Van Nuys from a quarry in Corona. That suggests Canadian aggregate imported through Long Beach could have lower transportation costs than aggregates from the more distant quarries serving the Los Angeles basin.

Aggregate-carrying ships will dock at an eight-acre terminal on Long Beach's Pier D. There, ships would unload sand and gravel into massive piles, where material will be stored before distribution.

To get ships to the terminal, Polaris will have to dredge the channel along Pier D. In all, the company expects to invest between \$5 million and \$7 million in dredging and other improvements, including installing a conveyor system.

If the permitting process goes smoothly, the terminal could begin operating toward the end of next year or in early 2013. In 2015, Polaris expects to import about 1 million tons of material, with the terminal reaching its full capacity of 3 million tons per year by 2019.

While 3 million tons is a small piece of the L.A. region's annual demand for sand and gravel, pegged at 40 million to 50 million tons per year, it's more than most local quarries produce in a year.

"Compared to local quarry production, that's a smoking operation," said Warren Colson, a consultant with EnviroMine Inc., a San Diego company that advises mining companies. "There are a couple big quarries in the Corona area capable of doing more than that, but not a lot more."

That would effectively make Long Beach home to one of the largest quarries in Southern California.

## **Permitting**

Unlike a quarry, though, the Long Beach terminal likely won't have to deal with the costs and delays that come with environmental lawsuits and community opposition. Those can add years and millions of dollars to the cost of opening or expanding a quarry.

"You do a quarry project and it can go for 10, 15, 20 years just in the permitting process," Colson said. "There are usually multiple lawsuits for environmental impacts. They're extremely expensive."

Vulcan Materials Co., based in Birmingham, Ala., has been trying for seven years to change the permits for a quarry in the foothills north of Azusa. Though Azusa voters approved a ballot measure allowing mining to go forward, the nearby city of Duarte filed a lawsuit last year that is holding the process up once again. The lawsuit is now before a state appellate court.

Cemex S.A.B., a mining and cement giant based in Monterrey, Mexico, has had federal permits to start a quarry near Santa Clarita since 1990, but it hasn't started digging.

Community opposition in Santa Clarita has been fierce and the debate has reached Washington, D.C., where Democratic California Sen. Barbara Boxer has proposed legislation that would cancel the company's permits and instead offer Cemex 10,000 acres of federal land near Victorville.

If that legislation fails to gain traction and the company decides to move ahead with mining operations in Santa Clarita, it could take another several years to get the necessary state and county permits.

Watsonville-based Granite Construction Inc. has been working since 2005 to permit a new quarry near Temecula, but the Riverside County Planning Commission voted preliminarily this summer to deny the project. A final decision from the commission is expected in December, with the county Board of Supervisors taking up the question next.

Thanks in part to delays and denials for quarry projects up and down the state, the California Geological Survey estimates that the state is short of aggregate that is permitted to be mined. A 2007 report estimated California would need 13.5 billion tons of aggregate over the next half-century, but that just 4.3 billion tons – about one-third – of that amount is permitted to be mined.

“There's plenty of rock – that's not the issue,” said Don Drysdale, a spokesman for the California Department of Conservation. “There's an ample supply of aggregate if it were all available to be mined.”

Indeed, the delays and denials for quarry projects add to the viability of Eagle Rock's plan, said Terry, who noted that his company also is looking to import aggregate into San Diego thanks in large part to the denial of the quarry near Temecula.

### **Long haul**

Hauling all that rock and sand to Long Beach isn't cheap, but Terry said Eagle Rock will be able to compete with local quarries.

That's because local quarries aren't that local anymore. The closest rock and sand source for a construction project in downtown Los Angeles would be in Sun Valley or Irwindale, about 20 miles away. But material could come from as far away as Palmdale, more than 60 miles away, or even farther from Cabazon.

When companies buy tens or hundreds of tons of relatively cheap material, distance is expensive.

Eagle Rock sees its Long Beach terminal serving areas within a radius of 20 to 25 miles, a distance within which Terry said the Canadian rock and sand can be sold at competitive prices. Davis, the consultant, agreed with such an estimate, meaning the imported rock could be competitive for projects in the South Bay, Westside and north Orange County.

“The transportation cost can exceed the cost of the aggregate,” said Davis. “If a ton of rock costs, on the average, \$8 or \$10, you will find the cost of the delivered aggregate can double in 20 miles, maybe even 15.”

Even state quarry operators, noting Eagle Rock's San Francisco operation, are acknowledging that it might be cheaper to buy rock shipped on water from Canada than rock trucked from afar.

“The impression is, in the coastal areas, it's obviously feasible because it's being done,” said Charley Rea, a spokesman for the California Construction and Industrial Materials Association, which represents aggregate and cement producers. “In those areas, I can't deny it. It's happening.”