Status Report

From: Ron Packard & Gary Waldeck
To: Los Altos/Los Altos Hills Councils
Re: Lehigh Cement Quarry
Date: March 1, 2011

Today we, along with the LAH Planning Director (Ms. Debbie Pedro), met with senior officials of the Bay Area Air Quality Management District in San Francisco ("Air Quality District") for a two-hour meeting beginning at 9:00 am, and with senior officials of the California Regional Water Quality Control Board ("Water Quality Board") in Oakland for an hour and half meeting beginning at 1:00 pm. This is a brief report of our conversations.

Air Quality District

We meet with the following senior officials of the Air Quality District: Jack Broadbent (Executive Officer), Jeffrey McKay (Deputy Executive Officer), Brian Bateman (Director of Engineering), Kelly Wee (Director of Enforcement), Eric Stevenson (Director of Technical Services) and John Marvin (Compliance Program Manager). It is our joint impression that they were friendly, open, candid, and honest in their discussions. The following items were covered:

1. Organizationally, they have a staff of 325 employees, with a governing board of 22 members (Liz Kniss and three other persons from Santa Clara County are board members).

2. The Lehigh facility is considered a major stationary source. The Air Quality District has an employee (Dick Rodriguez) who is there almost daily to monitor their operations.

3. In its recent Health Risk Analysis and other reports, Lehigh is required to use a air distribution model (like a weather prediction model) that was prepared by a group of regulatory agencies that has been tested and is widely used. Lehigh was not involved in its creation.

4. A sampling station was set up in September, 2010 and was sited in Cupertino's Monte Vista Park because the model indicated that the greatest impact would be there. The total cost of setting up the station was around $350,000. The station continuously tests for five target Toxic Air Contaminants (TACs). Other TACs, including Mercury (Hg) are tested every six days to complete the TAC analyses. The test equipment cost for Hg was $20,000, the balance was to handle the other monitoring requirements. The results have been consistent with the model's projections, thereby tending to validate the model. However, testing for a full year is needed due to seasonal variations.

5. Reference Exposure Levels (RELs) are established by Cal/EPA's Office of Environmental Health Hazard Assessment (OEHHA). These RELs incorporate significant "safety factors" which OEHHA refers to as "cumulative uncertainty factors". The RELs estimate TAC exposure safety levels (limits) that are appropriate for a 70 year continuous exposure period; the chronic and acute RELs for Hg are based on cumulative uncertainty factors of 300 and 3000, respectively.

For example, while other TACs will have different values, the RELs for Hg (Mercury) are:

- Chronic (long term) is 0.3 $\mu g/m^3$ (which is 0.3 micrograms per cubic meter)
- Acute (peak periods, 1-hour maximum) is 0.6 $\mu g/m^3$

6. Cupertino Hg samples range from 0.003 to 0.008 $\mu g/m^3$, ~100 times less than the trigger points, which are already 300 to 3,000 times lower due to OEHHA's cumulative uncertainty factors.

7. The Air Quality District is developing new RELs for NOx and other TACs for subsequent emissions standards enforcement.

8. They cannot see a difference between the air quality measurements in Cupertino and that of some 30 other test areas in the Bay Area, including the downtown San Jose monitoring station that has been there for many years.

9. Lehigh's estimated emissions increased significantly in the past few years, in large part due to a change in the estimation method. Previously, estimates were based only on measurements of smoke stack emissions. To be more conservative, the Air Quality District now requires measurements to be based on 'material balance" (the total amount of materials that go into the process must therefore also go out of the smoke stacks).

10. The Air Quality District does not have the funding to create (or even cost share) in a second sampling station. However, if we were to decide to fund one ourselves, they would assist in identifying test configurations and selecting the site since that is very important.

11. The EPA is coming out with a new rule that will mandate a 95% reduction in Mercury emissions by the end of 2013. The only technology that can do this uses an "activated carbon injection" process. The process works by binding free Mercury to the Carbon molecules which are filtered out in a later process step. While the implementation of that new rule is down the road, Lehigh is implementing the process right away, at a cost of around $50 million.

12. Most prior Notices of Violation have dealt with dust management at the site, usually caused by watering equipment breakdowns. Lehigh has usually corrected these problems quickly.

13. The Air Quality District offered several times to participate in a facilitated forum, preferably in May, since by then Lehigh would have made their investment in the improved process to reduce emissions by 95%.

14. They agreed to provide us with copies of various correspondence, data and other documents regarding Lehigh so that they can be added to our Quarry Library.

15. They are also willing to work with a third party expert and said that such has been done in other situations, with the outcome always being that the expert agrees with the approach taken by the Air Quality District. Nevertheless, they would certainly open up all their records and assist any such expert.

16. They would not call Lehigh a model corporate citizen, but the District does not get major push-back from Lehigh as they do with some other major operations.

Water Quality Board

We met with the following senior officials of the Water Quality Board: Bruce Wolfe (Executive Officer) and Dyan Whyte (Assistant Executive Officer). As with the Air Quality District, it was our joint impression that they were friendly, open, candid, and honest in their discussions. The following topics were covered:

1. The Water Quality Board is governed by a smaller board, none of whom we recognized. The Board's purpose is to implement and enforce both State and Federal (EPA) water protection codes.

2. Since the quarry bottom is thought to be below groundwater levels, it has been filling with water. Lehigh has been routinely draining that water. Discharges can involve up to a million gallons of water. Lehigh never informed the Water Quality Board that it was exhausting this water into Permanente creek (except possibly hidden in its voluminous annual reports mentioned below). While Lehigh may claim that such water is merely clean ground water, the Board rejects that claim since it is contaminated on multiple fronts.

3. Lehigh operates under a general permit that allows discharge of some groundwater, but it was never intended to cover the massive Lehigh water discharges. The frequency and quantity of discharged water has caused the Water Board to generate serious concerns regarding the ecosystems for groundwater, Permanente creek protection, and the bay.

4. The Water Quality Board monitors about 1,800 entities that use the general permit; each files an annual report to the Board. With the decrease in staffing, it is impossible to adequately monitor each entity. Instead, the Board often relies on citizen reports, which is how it learned of the massive draining by Lehigh. Someone had noticed an increase in Permanente creek water flow where the creek passes through Heritage Oaks Park and called the Santa Clara Valley Water District, which called the Water Quality Board, which did an investigation.

5. The Lehigh's annual filing, under its current general permit, is significantly more voluminous than almost all others, consisting of thousands of pages. Buried within those numerous pages are cryptic disclosures of some of its practices, which Lehigh now claims constituted disclosure of its practices. The current general permit also has the limitation of references to best practices and other standards that are not objective and that make it more difficult to enforce.

6. The Water Quality Board formally issued a Notice of Violation (Feb. 22nd) which was a notification to Lehigh that its present method of water discharge into Permanente creek is unacceptable and is a violation of its general permit. To be in compliance, Lehigh must either stop the discharges or apply for a different permit (Sand & Gravel) that has standards that are geared towards a surface mining operation. That permit type has a regulatory scheme that is far more quantifiable and relatively easy to enforce. The Board officials will be meeting with Lehigh personnel next week to determine Lehigh's intentions.

7. Permanente creek flows through Los Altos, and through Heritage Oaks Park, a property owned by the City of Los Altos. They commented that Lehigh's drainage could have several negative impacts on Los Altos: extra maintenance or repairs of storm drain lines, and

requiring the Water District to periodically remove sediment from the Permanente creek bed, all of which adds to the cost of water.

8. The only recent water quality measurements of potential contaminants of the drainage into Permanente creek have come from Lehigh (whose measurements they trust). They welcome the opportunity to work with citizen groups to take measurements, and to help define the measurement procedures so that the Board can accept and rely on the results. They mentioned that sometimes citizens can spend a lot of time and effort taking measurements, only to find out that the methodology was flawed and the results not useable by the Board.

9. The Water Quality Board's primary concerns (absence evidence to the contrary) is not public health, but instead the ecosystems. It is concerned that such massive amounts of water results in damage to the creek, damage to animal species, ground water contamination, and damage to the bay. They noted that water turbidity and sediments in the stream may kill fish species and endanger the protected red legged frog habitat. They are also concerned is that drainage may result in contamination of the lower levels of ground water, which is pumped for subsequent treatment and human use.

10. They agreed to provide to us copies of annual reports and any correspondence with Lehigh for the past three years; such materials will be added to our Quarry Library.

11. They would be willing to participate in a joint forum (with the Air Quality District) in May, but would want it scheduled long beforehand and cleared on their calendar.

Next Steps

1. See if the Los Altos High auditorium would be available sometime in May for a joint City/Town facilitated forum with both the Air Quality District and the Water Quality Board. If so, arrange a date/time for such a meeting.

2. Express concerns to the County regarding the pending matters (timing is important on this item).

3. Try to generate a citizens group that can do quality water measurements.

4. Consider hiring an independent air/water quality consultant(s) to evaluate the Lehigh data.

[Caveat – In the interests of being transparent and open, the above has been made public. It should be remembered, however, that all of the above is based on our initial observations and recollections, and the data and information may be corrected or superseded with subsequent information. As such, the above is not conclusive, evidentiary, or binding on either the City of Los Altos or the Town of Los Altos Hills.]