

Attachment 14

GEOTECHNICAL ENVIRONMENTAL WATER RESOURCES CONSTRUCTION SERVICES

Project No. **9181.100.000**

September 2, 2011

Mr. David R. Baker O'Brien Land Company, LLC 3031 Stanford Ranch Road, Suite 2-310 Rocklin, CA 95765

Subject: AMD Trust Site

Deer Hill Road Lafayette, California

EXISTING SITE CONDITIONS

Dear Mr. Baker

We have prepared this letter to comment on the existing soil and topographic conditions at the AMD trust site. The proposed development will include some grading and re-configuration of site topography but will to a large extent utilize existing artificially-created landforms that were created by past site uses as described below.

SITE USE HISTORY

Review of aerial photographs from 1928 to 2005 shows that the site was undeveloped until the existing residence was constructed in 1941. The garage and one of the two small offices were constructed sometime between 1946 and 1958. The other small office appears to have been constructed sometime between 1965 and 1974. Contra Costa County documents indicate that Independent Construction Company was issued a quarry permit for the site, which was active from 1967 to 1970. This quarry use pre-dates the Surface Mine Reclamation Act (SMARA), which would have required reclamation and stabilization of quarry slopes and re-vegetation of the site. Aerial photographs from 1968 and 1969 show that grading for the construction of Deer Hill Road and Highway 24 was in progress at that time, and that excavations were in progress across most of the AMD Trust property. A comparison of USGS topography to existing topography shows that cuts of as much as 60 to 80 feet were made on the site as part of quarry operations. We understand that the excavated material was used as fill in the adjacent road and highway construction. Based on review of aerial photos, some form of quarry operation or minor grading activity occurred at the site through the early 1990s. The site was used as a container storage site from the late 1990s almost to the present time. Figure 1 depicts areas of past disturbance at the site related to both quarry activity, road construction and other site uses.

EXISTING CONDITIONS

Approximately 85 percent of the area of the AMD Trust property has been disturbed by past site use, as depicted on Figure 1. A comparison of USGS topography to existing topography shows that cuts of as much as 60 to 80 feet were made on the site as part of quarry operations. Areas

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adjacent to Highway 24 and Deer hill road were filled to create road embankments. The current topography is a series of artificial terraces and graded slopes upon which natural soils and native vegetation are absent. The exposed soils in graded areas consist of nutrient-poor bedrock or rock-derived gravelly soil. Many existing slopes are eroding and locally unstable.

PROPOSED PROJECT

The proposed project will largely occupy the existing artificially-created site landforms but will include geotechnical measures to stabilize slopes and reduce erosion. Over-steepened cut slopes will be graded to flatter inclinations, loose, eroding and unstable soils will be removed and replaced with stabilized engineered fills, and surface drainage will be improved and controlled by the storm drain collection system. In addition, the project will include water quality treatment facilities that will reduce sediment discharge from the site. Currently exposed bare soil areas on slopes and existing terraces will be vegetated by proposed landscaping. In general, the proposed development will improve stability, reduce erosion and improve the quality of existing runoff water.

CONCLUSIONS

Approximately 85 percent of the area of AMD Trust property is currently in a disturbed and non-native condition due to past site use as a pre-SMARA quarry which was never reclaimed in accordance with more recent State requirements. The proposed development will improve slope stability, reduce erosion control site runoff and improve the water quality of site runoff.

If you have any questions or comments regarding this letter, please call and we will be glad to discuss them with you.

No. 1640 Exp. 3/31/2012

Sincerely,

ENGEO Incorporated

Philip J. Stuecheli, CEG

Associate

Attachment: Figure 1

Cc: Norm Dyer, LCA

Daniel S. Haynosch GE Principal

