Attachment No. 6 RMA Memoranda, Hydrogeologic Evaluation of Current Groundwater Conditions at the CEMEX Stillwell Quarry, March 24, 2014



RESOURCE MANAGEMENT AGENCY

INTEROFFICE MEMORANDUM

March 24, 2014

TO:

Michael C. Spata, Associate Director

FROM:

Henry Dong, Planner II

SUBJECT: Hydrogeologic Evaluation of Current Groundwater Conditions at the CEMEX

Stillwell Quarry

The Resource Management Agency (RMA) received written complaints on January 31, 2004 from adjacent property owners to the CEMEX Stillwell mine (CA Mine ID#91-54-0034) located north of Lomitas Drive and Highway 198, in Lemon Cove. The neighbors' complaints were in regard to depleted well groundwater levels speculated to be a result of the CEMEX Stillwell mine de-activating (no longer operating) the dewatering pumps at the mine site. Condition No. 46 of the CEMEX Stillwell Permit establishes a "V" ditch along the east side of the project site designed to be utilized to replenish groundwater supplies to neighboring properties. Condition No. 55 requires the mine to establish a "Groundwater Monitoring Plan to assess the effectiveness of the V-ditch design in maintaining groundwater levels in wells along the east and southeast boundary of the site, and in monitoring the quality of water supply recharging the local aquifer."

An inspection was conducted by RMA staff (Henry Dong, Planner II) on February 11, 2014. Discussions with the mine operator determine that the mine has shut down operations since September 4, 2013 when power lines operating the water pumps were stolen for the second time. The mining activities included operating water pumps utilized to fill the "V" ditch along the adjacent properties.

On February 20, 2014, RMA requested CEMEX provide a report from a licensed hydrologist as outlined in Condition No. 49 of the permit. Condition No. 49 states "upon receipt of a written complaint from any owner of a pre-existing well which details an alleged impact to the well's water level, yield, or water quality, the RMA shall request a report from a licensed hydrologist explaining the effects of the mining operation on the adjacent property owner's water wells." The Resource Management Agency request a licensed hydrologist provide the hydrology report by March 7, 2014.

The Resource Management Agency received the "Hydrogeological Evaluation of Current Groundwater Conditions at the CEMEX Stillwell Quarry" report, dated February 26, 2014, from EMKO Environmental, Inc. The report meets the requirement of RMA's request for a report as outlined in Condition No. 49 of the surface mining permit. RMA has reviewed the hydrogeological evaluation in order to determine actions for the mining facility.

Hydrogeologic Evaluation of Current Groundwater Conditions at the CEMEX Stillwell Quarry Page 2

Hydrogeologic Report:

According to the hydrogeologic report, "dewatering at the Stillwell Quarry began in September 2008. Water from the mining excavation was pumped into a holding basin to allow fines to settle out. The water in the holding basin was then pumped to the recharge trench. Pumping to the recharge trench occurred continuously until June 17, 2013, when the wiring to the pumps was stolen. The wiring was replaced and the pumps restarted on June 21, 2013. The wiring was stolen a second time on September 4, 2013. A decision was made at that time to leave the pumps off and to cease dewatering of the Stillwell Quarry." The analysis discusses how well monitoring data shows the "low water levels reported in the complaints" from neighboring property owners "are not a recent incident and have been occurring cyclically since at least August 2011. The data clearly demonstrate that the groundwater level in the area was already dropping rapidly prior to shutdown of September 4, 2013 of the pumps used for dewatering and for providing water to the recharge trench."

The hydrogeologic report states that the "evaluation of historical rainfall data for Lemoncove shows that the last two water years have been two of the driest ever recorded based on California Data Exchange Center (CDEC) data. In addition, the first four months of the current (2013-2014) water year have been the driest October – January period measured in Lemoncove since 1923."

The hydrogeologic report states that "an evaluation of hydrologic conditions on the Kaweah River demonstrates that releases from Terminus Dam and flows within the river have been diminishing over the last three water years and that there have not been any releases to the river above base-flow levels since July 2013. These hydrologic conditions on the Kaweah River indicate that groundwater recharge has been decreasing for several years and that there was likely been little or no recharge of groundwater for at least the last six months."

The Hydrogeologic Evaluation concludes that "based on the data presented in this report, the declining water levels in the wells in the Lemoncove area occurred in 2012, and in 2013. The declining trend in 2013 began as early as February, six months before discharge of water to the recharge trench was stopped. There is not a correlation between the cessation of discharge to the recharge trench and the water levels in the wells. Evaluation of local rainfall and river flow data shows that the Lemoncove area has been experiencing the most severe drought conditions ever recorded in the area. Substantially diminished rainfall amounts and curtailed flows in the Kaweah River have reduced, if not eliminated, local groundwater recharge. The historically low rainfall and river discharge amounts are the most likely cause of the lower groundwater levels observed in the wells in the area"

Additional Background Information:

The Hydrogeologic Evaluation of Current Groundwater Conditions at the CEMEX Stillwell Quarry was evaluated by Michael Bond, RMA Chief Engineer. Mr. Bond confirms that the data in the report supports the findings that there is not a correlation between the cessation of discharge to the recharge trench and the water levels in the wells. The data also supports the

Hydrogeologic Evaluation of Current Groundwater Conditions at the CEMEX Stillwell Quarry Page 3

finding that historically low rainfall and the low Kaweah river discharge amounts are the most likely cause of the lower groundwater levels observed in the wells in the area.

Part A, Section 4.4.2 (Page 4-63) of the Revised Draft Environmental Impact Report (RDEIR) approved for the Stillwell Quarry explains the basis for the V-Ditch conditions. The RDEIR describes "the possibility that dewatering of the mining pit could affect the water levels in the shallow water wells in the vicinity, a recharge trench of a minimum of six feet in depth will be installed between the active pit and these wells. Water will be pumped during phases III and IV of the mining operation into this trench to maintain the level of groundwater table in the wells located in the shallow alluvial sediment."

Page 1 of the Stillwell Groundwater Monitoring Program (SGMP) states "during the active mining phase of the propose project, a recharge trench will be installed along the east side of the property." The SGMP describes the process of the trench which includes "water that has been pumped from the active mining pit for dewatering will be partially diverted to the recharge trench to maintain the water levels and groundwater gradient to the east and southeast (upgradient) of the project." The RDEIR and the SGMP both describe concerns of the dewatering process of the mining pit affecting water levels and groundwater gradient of the neighboring wells. The requirement for the pumping water into the recharge ditch is correlated with the mine actively dewatering the mining pit.

Conclusion

The following findings are the result of the data presented in this report:

- the declining water levels in the wells in the Lemoncove area occurred in 2012, and in 2013.
- The declining trend in 2013 began as early as February, six months before the discharge of water to recharge trench was stopped by the mine operator.
- Evaluation of local rainfall and river flow data shows that the Lemoncove area has been experiencing the most severe drought conditions ever recorded in the area.
- Substantially diminished rainfall amounts and curtailed flows in the Kaweah River which have reduced, if not eliminated, local groundwater recharge.
- The RDEIR and the SGMP describe the requirement for pumping water into the recharge "V" ditch is correlated with the mine actively dewatering the mining pit.
- Expert opinion from Michael Bond, RMA Chief Engineer confirms the data provided supports the findings made in the hydrogeologic report.

Based on the information and findings in the Hydrogeologic Evaluation of Current Groundwater Conditions at the CEMEX Stillwell Quarry, there appears to be not a correlation between the cessation of discharge to the recharge trench and the water levels in the wells. The requirement for pumping water into the recharge ditch is correlated with the mine actively dewatering the mining pit. The lower groundwater levels observed in the wells in the area are most likely a result of historically low rainfall and river discharge amounts experienced in the Lemoncove area.

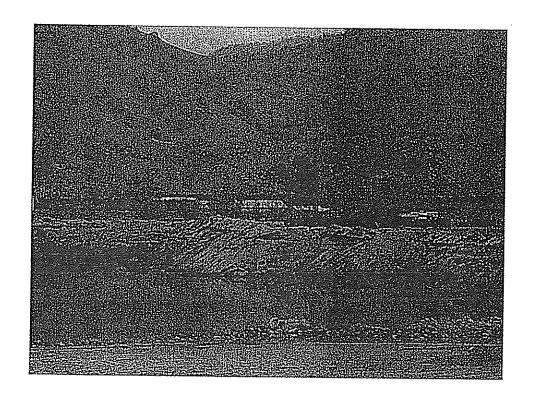
Hydrogeologic Evaluation of Current Groundwater Conditions at the CEMEX Stillwell Quarry Page 4

Attachments:

- Attachment No. 1: Hydrogeologic Evaluation of Current Groundwater Conditions at the CEMEX Stillwell Quarry
- Attachment No. 2: Comments received on the Hydrogeologic Evaluation
- Attachment No. 3: CEMEX Stillwell Mine Permit Resolution, Conditions of Approval, and Groundwater Monitoring Program
- Attachment No. 4: Letters received from neighboring properties January 31, 2014

Attachment No. 1 Hydrogeologic Evaluation of Current Groundwater Conditions at the CEMEX Stillwell Quarry

Hydrogeologic Evaluation of Current Groundwater Conditions at the CEMEX Stillwell Quarry Tulare County, California



Prepared by:

EMKO Environmental, Inc.

551 Lakecrest Dr. El Dorado Hills, CA 95762-3772

February 26, 2014

A. Kopania

Dr. Andrew A. Kopania President and Principal Hydrogeologist California Professional Geologist No. 4711 California Certified Hydrogeologist No. HG 31

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Hydrogeologic Evaluation of Current Groundwater Conditions at the CEMEX Stillwell Quarry Tulare County, California

1.0 INTRODUCTION

This report has been prepared at the request of Tulare County Resource Management Agency (RMA) to address several written complaints received by RMA in late January 2014 regarding groundwater conditions adjacent to the CEMEX Construction Materials, Inc. (CEMEX) Stillwell Quarry near Lemoncove, California (State Mine ID 91-54-0034). The following Conditions of Approval were adopted by the Tulare County Board of Supervisors as part of the Conditional Use Permit for the Stillwell Quarry:

46. Prior to commencement of mining, the applicant shall prepare and implement the June 2002 Groundwater Monitoring Program adopted for this project. The purpose of the monitoring plan shall be to assess the effectiveness of the V-ditch design in maintaining groundwater levels in wells along the east and southeast boundary of the site and in monitoring the quality of water supplying recharging (sic) the local aquifer. All groundwater monitoring and reporting shall be done in accordance with the approved plan. Any property owner with a water well (or water wells) located within a ½ mile radius of the property boundaries may participate in the groundwater monitoring program. The project applicant shall notify all owners with wells within ½ mile of the property boundaries of the opportunity to participate in the groundwater monitoring program. Participation in the program requires that the wells be accessible and in a condition that allows them to be tested on a regular basis.

And,

49. The project shall not affect the water level, yield, or quality of any well*, both during the mining operations and subsequently as a reclaimed site. Upon receipt of a written complaint from any owner of a pre-existing well which details an alleged impact to the well's water level, yield, or water quality, the RMA shall request a report from a licensed hydrogeologist explaining the problem. If a significant problem can be professionally demonstrated by a licensed hydrogeologist to be caused by mining activities, then immediate action must be taken to correct the condition, which may include (but is not limited to) modifying the recharge ditches to provide more recharge capacity, reducing the amount of pit dewatering, or if necessary, ceasing mining operations. (* As used herein, an impact to a well shall not be deemed to have occurred if the well water level, well yield, and quality are within ranges of existing conditions specified in the EIR).

Conditions of Approval Nos. 46 and 49 are used as the basis for the technical evaluation of the complaints received by the RMA. The technical evaluation presented below considers the history of mining and dewatering at the Stillwell Quarry, the available data regarding water levels in neighboring wells and monitoring wells on the Stillwell Quarry

property, rainfall data for Lemoncove, and hydrologic conditions on the Kaweah River.

2.0 NATURE OF THE COMPLAINTS

Table 1, below, summarizes the complaints received by RMA in January 2014.

Table 1. January 2014 Complaints				
Owner	Address	Date	Nature of Complaint	
Packard	33511 1/2 Sierra Dr.	1/30/14	For last 2 months, well goes dry quickly	
Morton	33511 Sierra Dr.	1/30/14	Well going dry, "pumping air" for over a month; well 17 ft deep, water level at 14 ft	
Cloud	33481 Sierra Dr.	1/30/14	Well running dry and "pumping air"	
Rodriguez	33513 Sierra Dr. #A	1/29/14	Pump pulling in air due to lack of water, for about a month	
Cairns	24822 Ave. 338	1/31/14	Well is pumping properly; concern for neighbors	

Figure 1 illustrates the location of the existing quarry excavation, the recharge trench, the 24822 Avenue 338 property, and the 33481 to 33513 Sierra Drive properties. Figure 1 was prepared from a screen-capture image from Google Earth. The imagery date for the aerial photograph in Figure 1 is June 15, 2011.

All of the complaints received by RMA state that the well issues have to do with reduced well yield or low water levels, and that the issues began one to two months prior to the end of January 2014 (i.e. late November to late December 2013).

3.0 MINING OPERATIONS AND MONITORING

According to information provided by CEMEX (Pete LoCastro, plant manager, personal communication, February 13, 2014), dewatering at the Stillwell Quarry began in September 2008. Water from the mining excavation was pumped into a holding basin to allow fines to settle out. The water in the holding basin was then pumped to the recharge trench. Pumping to the recharge trench occurred continuously until June 17, 2013, when the wiring to the pumps was stolen. The wiring was replaced and the pumps restarted on June 21, 2013. The wiring was stolen a second time on September 4, 2013. A decision was made at that time to leave the pumps off and to cease dewatering of the Stillwell Quarry.

A site reconnaissance of the Stillwell Quarry was conducted on February 11, 2014 with Henry Dong of RMA and Peter LoCastro and Ronald Wilson of CEMEX. At that time, the cut wires at the electrical boxes serving the pumps were observed and no water was being pumped from the quarry pit or into the recharge trench. The quarry pit had filled

with water to a depth of approximately 15 feet below ground surface, as shown in Figures 2 and 3.

Consistent with Condition of Approval No. 46, a groundwater monitoring program has been conducted since 2005 by DellaValle Laboratory, Inc. for CEMEX. The monitoring program includes measurement of groundwater levels in nine private wells near the quarry and four monitoring wells at the quarry site. The water levels have been measured monthly since May 2005, which is more than three years prior to the beginning of dewatering and use of the recharge trench. Of the five complaint letters received by RMA (see Section 2.0), only the properties at 33511 Sierra Drive and 24822 Avenue 338 have elected to participate in the groundwater monitoring program. Figure 4 shows the water levels that have been measured in the well at 33511 Sierra Drive. Figure 5 shows the water levels that have been measured in the well at 24822 Avenue 338. Figure 6 shows the water levels that have been measures in the four monitoring wells at the quarry site.

Figures 4, 5, and 6 show that the water levels in the neighboring wells and the onsite monitoring wells were relatively stable from 2005 through the middle of 2011. From approximately August 2011 until May 2012, the water levels in the wells decreased appreciably. The water levels subsequently recovered, peaking in January 2013 at levels that were within the same range as those that were measured in the wells from 2005 through early 2011. Since January 2013, however, the water levels have consistently declined in each of the wells shown on Figures 4, 5, and 6. In May 2012 and October 2013, the water level in the well at 33511 Sierra Drive (Figure 4) was actually slightly lower than the level measured in January 2014.

The data on Figures 4 and 5 indicate that the most rapid drawdown in the water levels in the wells at 33511 Sierra Drive and 24822 Avenue 338, respectively, began in August 2013, and that by October 2013 the water levels had stabilized and even recovered slightly.

The data from the groundwater monitoring program, as shown in Figures 4, 5, and 6, indicate that declines in the water levels in the wells adjacent to the Stillwell Quarry occurred from August 2011 to May 2012, and again from January 2013 to the present. The most recent water levels measured in the wells is comparable to the levels measured in May 2012 and again in October 2013. Thus, the low water levels reported in the complaints discussed in Section 2.0 are not a recent incident and have been occurring cyclically since at least August 2011. The data clearly demonstrate that the groundwater level in the area was already dropping rapidly prior to the shutdown on September 4, 2013 of the pumps used for dewatering and for providing water to the recharge trench.

4.0 RAINFALL DATA FOR LEMONCOVE

Rainfall measurements have been collected in Lemoncove since 1905. The data are available from the California Data Exchange Center (CDEC) website at www.CDEC.water.ca.gov, under the station name LMC.

Figure 7 shows the rainfall at Lemoncove from 1905 through Jan 2014. The rainfall data are plotted for each "water year". A water year is the period from October 1 through September 30 of the subsequent year. A water year provides a better representation of the seasonal rainfall patterns in California than does a calendar year. As indicated on Figure 7, the average water year rainfall in Lemoncove is 14 inches per year for the 110-year period of record.

Figure 8 shows the water year rainfall in Lemoncove from 2000 through Jan 2014. Figure 8 demonstrates that the last two water years have been two of the driest ever recorded. Although the 2013-2014 water year is not complete, the first four months of this water year have been the driest October-January period measured in Lemoncove since 1923, based on the CDEC data.

5.0 HYDROLOGIC CONDITIONS ON THE KAWEAH RIVER

The Kaweah River runs along the north and west sides of the Stillwell site. Flows within the river are expected to have an effect on groundwater levels in the area, as local rainfall and the Kaweah River are the only potential sources of groundwater recharge in the Lemoncove area. High river flows can recharge the local groundwater aquifer from the area north of the Stillwell Quarry (see area labeled "Kaweah River" on Figure 1), and minimize discharge from the aquifer to the river farther downstream. Conversely, low river flows may not provide any recharge and can also allow the aquifer to drain more rapidly toward the river.

Average daily flow data for the Kaweah River below Terminus Dam is available from the CDEC website (www.CDEC.water.ca.gov) for Station TRM. The average daily flow data from 1994 through February 9, 2014 were obtained for this evaluation, and are shown on Figure 9. The data indicate that there are two primary flow periods in the river each water year. During the winter, flood control releases may occur for short durations, typically between November and February. The predominant flow period, however, occurs during the summer months, when large volumes of water are released from the dam for irrigation deliveries. The irrigation releases typically occur for longer durations and at higher flows than winter flood control releases, often extending from March through September. However, during dry years, both the flood control and irrigation releases can be substantially curtailed. These variations can be seen by comparing the river flows over the past three to four years.

The 2010-2011 water year was an exceptionally wet year, with total rainfall of 21.86 inches, more than 56 percent above average. Figure 10 shows the flows in the Kaweah

River for the 2010-2011 water year, and extending into early 2012. Flood releases occurred almost constantly from early November 2010 through February 2011, with a peak rate of almost 1,800 cubic feet per second (cfs). Irrigation releases occurred continuously from early March 2011 until the first week of October 2011, with a peak rate of almost 3,000 cfs.

The 2011-2012 water year was a below-normal year, with total rainfall of 11.68 inches, or about 17 percent below average. Figure 11 shows the flows in the Kaweah River for the 2011-2012 water year, and extending into early 2013. Flood releases occurred intermittently from early November 2011 into mid-December 2011, with a peak rate of about 500 cfs. Irrigation releases did not begin until mid-May 2012 and were terminated by mid-August 2012, with a peak rate of about 2,200 cfs briefly reached.

The 2012-2013 water year was even drier than the prior year, with total rainfall of only 7.30 inches, or 48 percent below average. Figure 12 shows the flows in the Kaweah River for the 2012-2013 water year, and extending into early February 2014. There were two very brief flood releases, one in mid-December 2012 and another at the end of January 2013. Although the peak flood release reached as high as 1,100 cfs at the end of January 2013, that release period occurred for only seven days. Irrigation releases did not begin until May 2013 and were terminated before the end of July 2013, with a peak rate of only 1,000 cfs.

Figure 12 also shows that there have not been any flood control releases since the beginning of the 2013-2014 water year through February 9, 2014.

6.0 SUMMARY AND CONCLUSIONS

This technical report has been prepared at the request of Tulare County RMA in accordance with Condition of Approval No. 49 for the CEMEX Stillwell Quarry near Lemoncove, California. In late January 2014, RMA received five complaint letters from residents located to the east of the Stillwell Quarry and the associated recharge trench. Four of the letters allege that the cessation of discharge to the trench is causing a decrease in groundwater levels and a decrease in well yield. The fifth letter states that effects have not been noted in that owners well. The complaints state that the decreasing well yields have been an issue for the past one to two months.

Dewatering of the Stillwell Quarry, and pumping of water to the recharge trench, has been occurring since September 2008. On September 4, 2013, theft of the wiring to the discharge pumps occurred for a second time. At that time, dewatering activities and discharge to the recharge trench ceased.

Consistent with Condition of Approval 46, CEMEX has been conducting a groundwater monitoring program at the Stillwell site since May 2005. Only two of the property owners

that submitted letters to RMA in January 2013 elected to participate in the groundwater monitoring program, and only one of those two owners has indicated that his well is experiencing a diminishing yield. The data from the groundwater monitoring program shows that declining water levels in the wells occurred from August 2011 to May 2012, and again from January 2013 to the present. The January 2014 water levels measured in the wells is comparable to the levels measured in May 2012 and again in October 2013. Thus, the low water levels reported in the letters to RMA are not a recent incident and have been occurring cyclically since at least August 2011. The data clearly demonstrate that the groundwater level in the area was already dropping rapidly prior to the September 4, 2013 shutdown of the pumps used for dewatering and for providing water to the recharge trench. The data also show that since October 2013, the water levels in the wells have actually increased slightly.

Evaluation of historical rainfall data for Lemoncove shows that the last two water years have been two of the driest ever recorded. In addition, the first four months of the current (2013-2014) water year have been the driest October-January period measured in Lemoncove since 1923.

An evaluation of hydrologic conditions on the Kaweah River demonstrates that releases from Terminus Dam and flows within the river have been diminishing over the last three water years and that there have not been any releases to the river above base-flow levels since July 2013. These hydrologic conditions on the Kaweah River indicate that groundwater recharge has been decreasing for several years and that there has likely been little or no recharge of groundwater for at least the last six months.

Based on the data presented in this report, the declining water levels in the wells in the Lemoncove area occurred in 2012, and in 2013. The declining trend in 2013 began as early as February, six months before the discharge of water to the recharge trench was stopped. There is not a correlation between the cessation of discharge to the recharge trench and the water levels in the wells. Evaluation of local rainfall and river flow data shows that the Lemoncove area has been experiencing the most severe drought conditions ever recorded in the area. Substantially diminished rainfall amounts and curtailed flows in the Kaweah River have reduced, if not eliminated, local groundwater recharge. The historically low rainfall and river discharge amounts are the most likely cause of the lower groundwater levels observed in the wells in the area.

In accordance with Condition of Approval No. 49, RMA has requested this report, which was prepared by a licensed hydrogeologist. The available data and documentation demonstrate that the concerns identified in the letters received in late January 2014 are not caused by mining activities. It is also worthwhile to note that, had the data supported the opposite conclusion, two of the potential remedies identified in Condition of Approval No. 49 are to reduce the amount of pit dewatering, or if necessary, cease mining operations. Both of these conditions have existed at the site since September 2013.



Figure 1. Aerial map of Stillwell Quarry area.

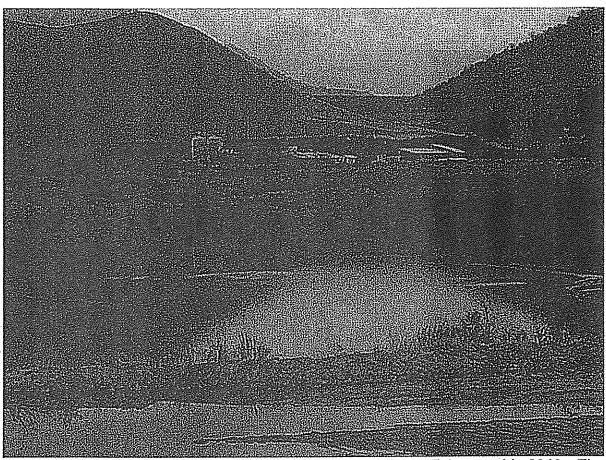


Figure 2. View looking east across Stillwell Quarry pit on February 11, 2013. The buildings in the background are at the 24822 Avenue 338 property.

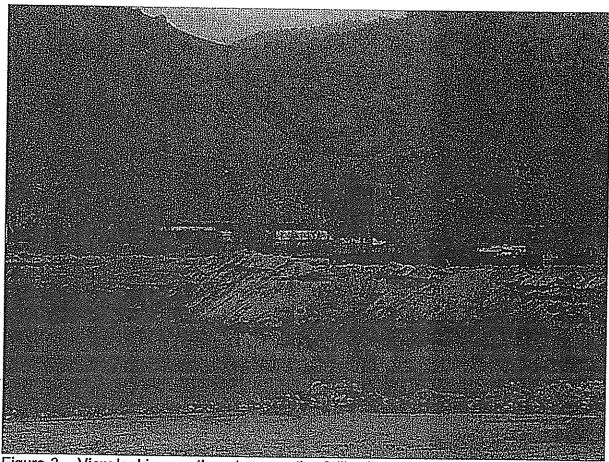
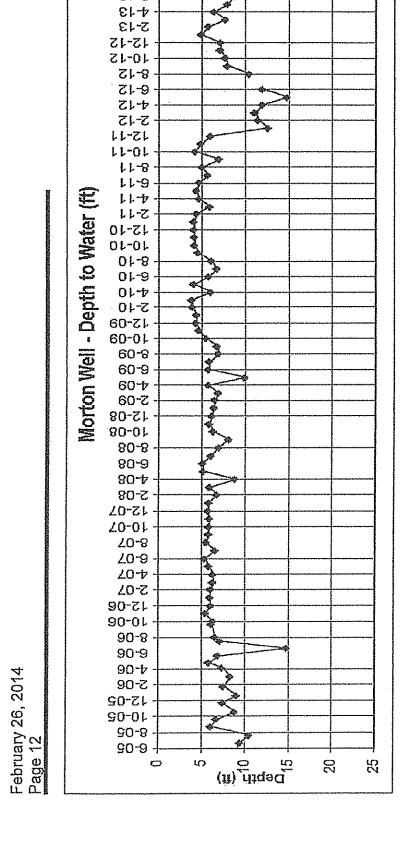


Figure 3. View looking southeast across the Stillwell Quarry pit on February 11, 2013. The buildings in the background are located approximately ¼ mile north of the 33513 Sierra Drive property.



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Figure 4. Water levels versus time for the well at 33511 Sierra Drive.



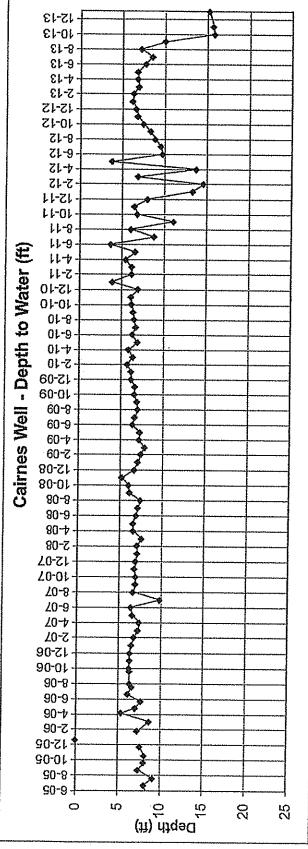
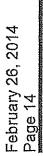


Figure 5. Water levels versus time for the well at 24822 Avenue 338.



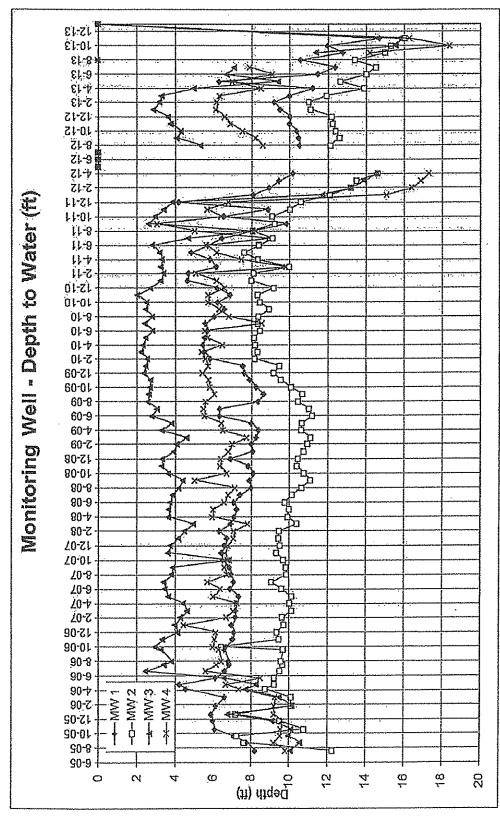
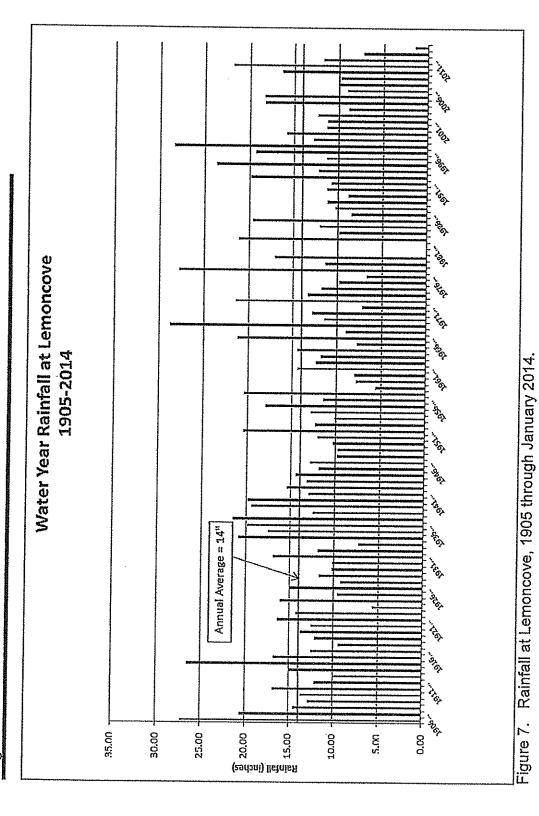
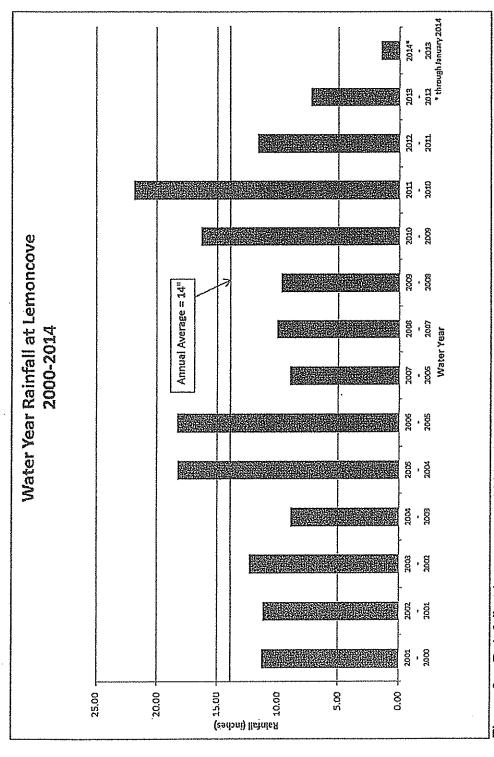


Figure 6. Water levels versus time for the onsite monitoring wells at the Stillwell Quarry.

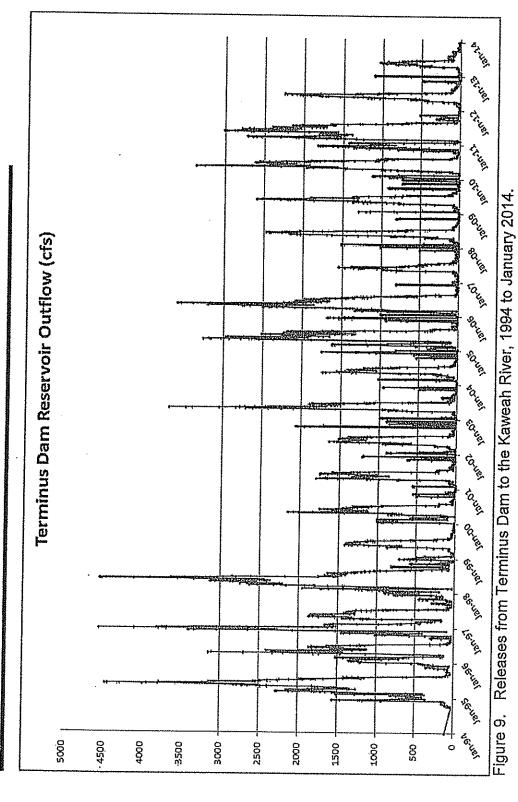
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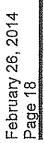




Rainfall at Lemoncove, 2000-2001 water year through January 2014. Figure 8.

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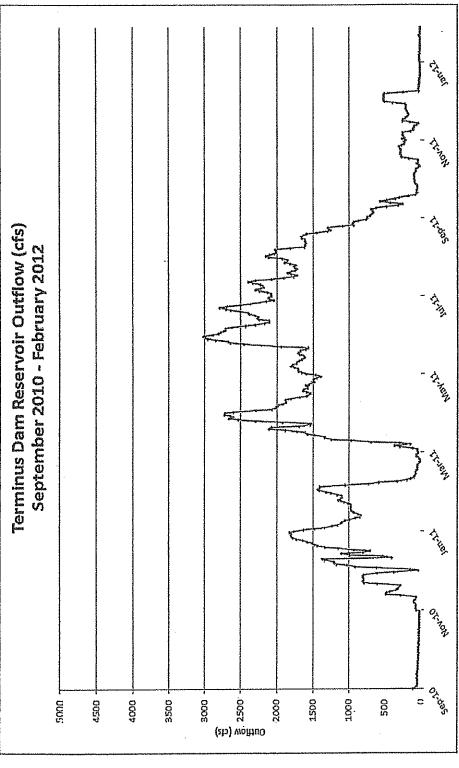
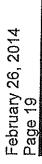
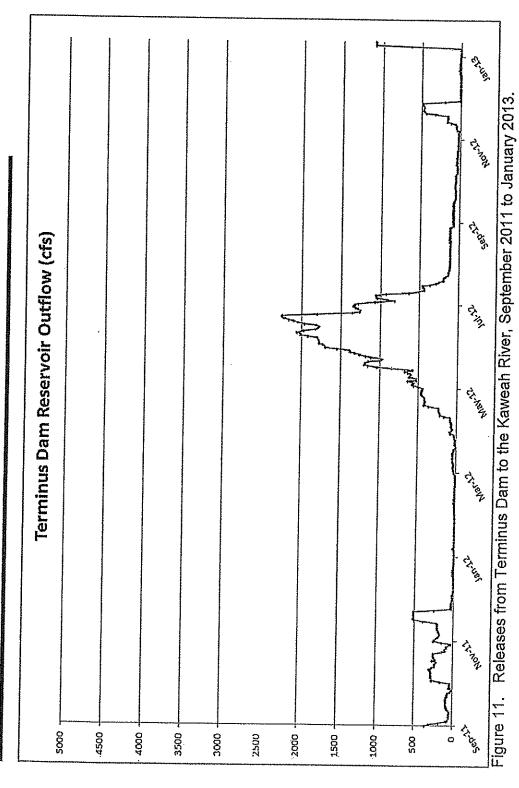
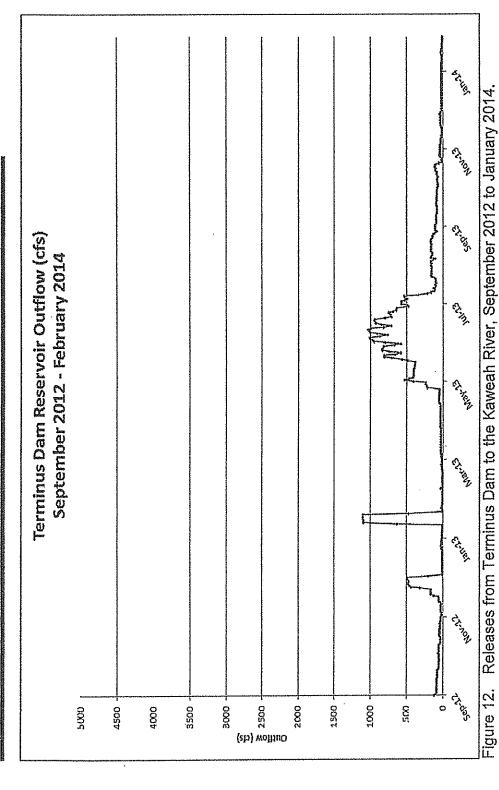


Figure 10. Releases from Terminus Dam to the Kaweah River, September 2010 to January 2012.





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Attachment No. 2

Comments Received on the Hydrogeologic Evaluation

P.O. BOX 44009 LEMONCOVE, CA 93244 (209) 597-2308 (800) 722-3049 FAX (209) 597-2317



INJECTION MOLDED PLASTIC PARTS INJECTION MOLDS

☐ CAD/CAM COMPUTERIZED DESIGN

March 14, 2014

Mr. Michael C. Spata

Tulare County RMA

5961 S. Mooney Blvd.

Visalia, CA. 93277

Dear Mike:

RE: Stillwell mining project

Thank you for your letter and the hydrology report.

The hydrology report does not mention the loss of ground water into the excavation that has been done at the Stillwell site. The excavation is now about 30 acres in size and 50 ft. deep. In order to mine the site, a pumping plant had to be installed to remove ground water flowing from the aquifer that is exposed on the eastern side of the excavation. This aquifer is the source of the water needed to keep water in the wells that are now dry along the south east side of the mine site. This aquifer is located from 8 to 25 ft. under the ground along the perimeter of the mine site.

The hydrology report does not address the loss of water from this aquifer into the abandoned excavation which started when the pumps were not restarted in Sept. 2013. The excavation covers about 30 acres and is 50 ft. deep. The water level in the excavation is now deemed to be about 15 ft. below the ground level along the west side of the excavation, per the hydrology report. Thus, 30 acres by 35 ft. deep water amounts to at least 1000 ACRE FEET of water now drained from the aquifer and this drainage is continuing. This omission from the hydrology report is as serious error. Another way to look at this is to assume you have a pipe carrying the water southward at the site and this pipe has been cut open along about 500 ft. This pipe cannot carry water further south as long as the water has free passage into the excavation site where the water level is still lower than the aquifer.

The conditions of the permit establish the "v" ditch to replenish the water that was lost to the wells along the south and east side of the excavation when the aquifer was opened to the excavation. This fact was omitted as well from the hydrology report. Turning the

pumps off and letting the aquifer fill the excavation is stealing the water from the aquifer. Therefore, the pumps have to be turned on and the "v" ditch recharged.

Time is of the essence here. Rob Morton, for example cannot get enough water from his well to wash ONE load of clothes. This condition has NEVER occurred before now. It is obvious from the hydrology report that the water level in the aquifer has dropped precipitously since October and November 2013. No mention of monitoring levels were included for 2014 which is another omission of the hydrology report. The wells have continued to pump far less water and a lot more air. The lack of rainfall, river flow and climate change have NOTHING to do with this situation, because the aquifer has been systematically drained of at least 1000 acre feet of water while the excavation begins to fill.

This "v" ditch problem is just as bad along the north side of the existing plant site across the Kaweah River. The pumps were shut off there as well and water monitoring has shown a steady decline in ground water levels. Summer irrigation will drastically affect those wells as well. Frank Callahan will be back to discuss this issue with you very soon.

CEMEX is a multi-billion dollar Mexican company. If they continue to refuse to pump water into both "v" ditches, their permits should be revoked. We do not need another problem here in Tulare County and our citizens need to be backed up with your actions to turn the pumps on.

Potable water sources are required now for at least 5 wells along the Stillwell site. With the drought, where can these homeowners get the water they need? Hauling the water from other aquifers is the worst case scenario. Tanks have to be installed and expensive trucking will be required. All of this will be done in the next two weeks; just to keep their homes with enough water to flush the toilets, wash the clothes and keep a few chickens alive.

This is a total travesty and waste of water being drained into the excavation. Turn the pumps on now!! Thank you for your attention to this matter.

Sincerely,

Tom Cairns

March 21, 2014 Cpage 1 Mr. Michael C. Spafa Visalia, Cai Dear Mr. Spata: RE: Stillwell mining Project
Thank-you sir-for your letter 4 the Hydrology water level in my well continues to We are unable to wash fust one load of clothes per day.] am currently having to potable water in two 55 gal. druns, one trip at a time, to do laundry and water a few plants. My wife is required to Peritoneal Dialysis at every evening, consequently cleanliness is extremely important regarding her condition. We are also raising two grandchildren. We NEED WATER So do our neighbors. Some o children also The hydrology report does not mention the loss of groundwater into the mining excavation that has been done on the Stillwe is a very large excavation area to deep. Because the dewatering 40 to 50 ft. deep pumps were restarted in is now full the same aguifer -rom supplies water to my well and my neighbors wells. Our water is now in the excavation the excavation site just sitting there evaporating and I County RMA is allowing it to happen Who duthorized the decision to leave

(page 2) dewatering pumps off at the Stillwell Quarry in Sept. 2013?

The Hydrology report states on page 5 and on page 8 that of the 5 property owners that submitted complaint letters, only two elected to participate in the groundwater monitoring program. This is not accurate because two two_ proporty owners that were not on the program purchased their property after the permit for the Stillwell Mining project was issued and didnot know anything about the program.

The Hydrology report states on the graph for my well on page 12 that my water level for June, 2006, was about seven teet then drops way down to fifteen feet in July 2006, then feet in Huly 2006, then raises way up to about seven fee. August 2006. My personal well i My personal well worter. Le 6 feet for June 11 2000 August 2006. Peet for June 11 2000, records indicate 6 feet for July 22 2006, 5 feet 10 in for August 13 2006. The graph shows the June 2006 to December The graph Shows no monitoring levels for 2011 well has been pumping air since Der 2013, when the water level was bell 13 and 14 feet, now the water level 15 feet and as I stated before, I one load of laundry before running out of water. I have never had a issure with my well water prior to December 2013,

have owned and lived on this property since November 2001. If the green page 12 of the hydrology report is correct upuld have had the same well water problems I'm having now 3 times prior to Proporty owners along + ne existing plant site across river are also experiencing declining ground-water levels since the recharge trench V-ditch water pumps were Exican Company. Why are we Eighbors, as Tutore County res neighbors, as payers and citizens being allowed to suffer like this? The pumps that supple water to both recharge V-ditches need to be turned on immediatly. L thank you for your immediate attention regarding this extremely important Matter. Sincerely Morton

Maria and Elias Rodriguez 33513 Sierra Drive #A Lemon Cove, CA 93244

Dear County of Tulare Officials:

As the home owners of the residence at 33513 Sierra Drive #A in Lemon Cove, CA 93244 we are concerned about the lack water in our water well. After cutting of the water supply from the ditch behind our property we noticed the pumps sucked in air due to the lack of water. We have been struggling with this issue for months. This has not only been an inconvenience, but it has also been an extra expense. We have spent about an extra \$200.00, an expense that was not expected.

When we purchased our home in 2003 we were unaware of the water monitoring program available to us. If we had known we certainly would have elected to be on the program.

We are also concerned that the water from our aquifer that supplies water to our well is now filling up the mining excavation sites. We hope that Tulare County will help us be able to come with a resolution as soon as possible.

Sincerely,

Maria and Elias Rodriguez