Attachment 8

URS Response to 2011 Letter from Dr. Curry
(October 27, 2011 Letter and September 15, 2008 Memo)

URS

October 27, 2011

Mr. Gary Kaiser
Santa Barbara County Planning and Development Department
624 West Foster Road
Santa Maria, CA 93455-3623

Re: Letter Attachment from Dr. R. Curry, dated June 2, 2011

Dear Mr. Kaiser:

At your request we have reviewed the June 2, 2011 paper by Robert R. Curry PhD. Several new issues are raised in this correspondence, which are addressed below:

Page 3 (first page of letter attachment) comments that all agencies except Santa Barbara County have acted to protect hydrologic functions, sediment transport and stability of the river system.

Response:

It is incorrect to imply that Santa Barbara County has not given due concern to potential hydrological effects. The County has provided adequate protections in conditions of approval. Observations of the previous GPS-Ventucopa pits and studies performed in conjunction with preparation of the project EIRs indicate that effects on the river channel will be localized. That is, the anticipated effects will not be regional in nature or be substantial adverse impacts.

This June 2, 2011 submittal by R. Curry is also the first of his reviews in which it is recognized that the projects (GPS-Ventucopa and Diamond Rock mines) do not propose "skimming" recently or annually deposited shallow sediments in the active river channel, but instead propose to mine older deposits from the larger channel. Neither project intends to intercept and remove sediment that is transmitted by the river during low and moderate flows.

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Page 3, second paragraph, addresses economic viability of the projects.

Response

It is up to the applicants to determine the operating parameters that will provide economic viability. The County's only concern in this regard is the feasibility of project conditions and mitigation measures and the provision of adequate financial guarantees to implement the approved Reclamation Plans for both projects, in order to provide that significant impacts are mitigated to less than significant levels.

Page 3-4 headed "*Cuyama River Underflow is the local water source*"

Response:

Neither project will conduct activities that would substantially interfere with underflow or decrease recharge to the Cuyama Groundwater Basin. Even if the river underflow is temporarily exposed by excavation, there would be no discernable effect on the water supply of nearby wells. The issue of shallow groundwater associated with the current river channel is not ignored by the project Environmental Impact Reports (EIRs). This issue is discussed in Sections 3.3.1 and 3.3.2. The potential for impacts to groundwater quality related to the mine excavation extending beneath the upper groundwater table is noted in Section 3.3.2.2.1, where the conclusion is that the effect on water quality would be less than significant. The County and other agencies, however, have placed conditions on both projects to minimize potential adverse effects to shallow water quality. This is not a new issue, and the comment does not raise any new arguments or provide any new evidence.

Page 5-8, headed "*Instream berms or dikes are damaging the north bank of the river*" The discussion in these pages argues that past low-flow diversion structures at the GPS-Ventucopa mine have caused "dramatic" expansion of the channel to the west. The evidence provided is two photographs showing the left (west) bank of the river at the upstream end of the GPS-Ventucopa mine area.

Response:

Based on a review of past aerial photographs and photographs from our files in 2005, the high vertical bank shown in the photographs was not the result of increased channel erosion due to an in-stream low-flow diversion berm. It was the result of grading and excavation for the mine operation that started in 2003, and which was the reason for the updated permitting effort. This grading and mining continued up until a very heavy storm in late 2005 that

caused surface flows to extend across the entire width of the existing river channel. Sediment deposition from this event completely filled the pit and excavation areas being mined at the time.

Remaining comments in the June 2, 2011 paper address regulatory actions by other agencies, and do not related directly to the County prepared Environmental Impact Reports or Conditional Use Permits for the two projects.

If you have any additional questions, please feel free to call.

Sincerely,

URS Corporation

John P. Larson
Project Manager

MEMO

To: Gary Kaiser, County Planning and Development Department
Steve Rodriguez, Project Manager
From: John Larson, URS Corporation
Date: September 15, 2008
Subject: Diamond Rock Mine EIR, Letter from Robert Curry

We have reviewed the letter from Robert R. Curry, dated September 10, 2008, and conclude that it does not raise any new significant issues that we have not already addressed in the Final EIR and other responses during the hearing process for this project. The conclusions in the Final EIR with respect to impacts and mitigation measures, and the conditions of approval for the Conditional Use Permit as proposed, remain valid and do not require any modification. The following paragraphs provide specific responses to the items in the letter.

1. Depth to Water Table

The information in this comment is consistent with the description of the depth to the water table provided in the Final EIR (Section 3.3.1, and more specifically 3.3.1.2). The EIR recognizes the potential for the excavation to intersect the upper surface of groundwater (Section 3.3.2.2.1). We do not consider this to represent a significant impact, since it would be an intermittent and short-term event and would not result in any substantial changes with respect to water quantity or quality. The County did, however, place a specific condition to prohibit excavation below the water table and to prohibit artificial de-watering ("Geologic Hazards" Condition 8).

2. Water Consumption

The Chart 3-7 referenced in the comment does not relate to water balance (it presents a longitudinal section of the river channel). We have reviewed this issue before with the Planning Commission. The procedure used to estimate net water consumption is specific for the Cuyama Groundwater Basin and was developed by Brian Baca at the County Planning and Development Department, and published in the County's Thresholds and Guidelines Manual. The Final EIR presents this information in Section 3.3.2.2.2, and the overall review occurs in two parts. First, the total consumption of the project is estimated as presented in Table 3.3-1. Then adjustments identified in the Thresholds and Guidelines procedure are applied. The adjustments include an estimate of recharge, amounting to about 3.19 acre-feet per year, and an allowance for the displacement of agricultural activities which would consume about 45.80 acre feet per year. The comment argues that the estimate of recharge may be too high, since stormwater collection basins on the project may "plug" with fine sediment and since windy conditions may increase evaporation beyond rates estimated.

For the estimated peak production year (750,000 tons per year) the net water use was 28.12 acre-feet per year, which is below the threshold for this area of 31 acre-feet per

year. The difference is 2.88 acre-feet per year. Thus, the recharge area would only have to function at about 10% of the capacity estimated in order to maintain water use below the threshold.

Since publication of the Final EIR, the project has been modified to reduce the overall production rates such that no traffic is directed to and from the south. This reduction amounts to an effective decrease in production of about 20%, which will further decrease water use and provide even greater certainty in the conclusions regarding net water consumption.

3. Effects on River Bed Grade and Stability

Headcutting will not be a cumulative phenomenon. That is, headcutting from the GPS mine may influence the Diamond Rock property, but will not lead to a change in potential headcutting upstream from Diamond Rock—which would be influenced by the location and pattern of excavation on Diamond Rock itself.

The potential effect with respect to downstream scouring could be cumulative in nature, and would originate in the event that river flows filled the mine pits and dropped their sediment load on the mine properties. Then the cleaner flows, referenced as the "hungry river" in the comment, could suspend and remove additional sediment from downstream areas. This potential impact was considered, and is discussed in the Final EIR in Section 3.1.2.2.3 (see the first paragraph on page 3.1-17). For several reasons, not the least of which is that such downstream scouring has not been observed in association with the GPS pit, this potential effect is considered to be minor and is not expected to cause any damage. Because of the uncertainty in this conclusion, however, we did categorize this effect as a potentially significant, but mitigable (Class II) impact. The mitigation measure (W-2) requires regular monitoring of the channel morphology and adaptive management in the event any unexpected changes occur.

In other notes, the comment is incorrect in stating that the GPS mine does not require a Reclamation Plan. The "4 mines" referenced were not included in the cumulative impact analysis. That is because one (Ozena Ranch) is located in Lockwood Valley, nearly 15 miles upstream, and another (Richards Holdings) had not been submitted at the time the analysis was done. The other two (Diamond Rock and GPS) were both included and analyzed together with respect to their effects on the river bed and sediment movement. Finally, it must again be clarified that both Diamond Rock and the proposed new pit at GPS are intended to mine existing river bed material. Both intend to excavate during dry conditions and to divert most river flows and transported sediment around their pits. These two projects will not intentionally intercept and remove transported sediment from river flows.

4. Impacts to Nearby Wells

The project effect on groundwater use was analyzed in Section 3.3.2 as discussed above. The original discussion in the Final EIR was based on the County's published procedure

and did not include a detailed review of wells in the immediate area. This issue of specific effects on wells in the immediate vicinity was not raised by any commenter during public review. I did, however, review additional groundwater information and logs for several wells in the vicinity while researching a different issue from the Planning Commission hearings. It is true, as noted in the comment, that wells in the immediate vicinity can have standing water at depths as low as 50 feet below ground surface. It is incorrect, however, to characterize these as "shallow" irrigation wells. Test data show that these wells routinely pump water from depths in excess of 100 feet below ground surface, and boring logs indicate that these wells are screened to draw water from even greater depths, up to 300 feet below ground surface. The fact is that the depth to groundwater is highly variable in this environment. We have not assumed the presence of isolated or confined aquifers or other special circumstances in our discussion.

The project itself will not consume inordinate amounts of groundwater, and it will not have any substantial influence on the highly variable water table associated with this area. Consequently, we do not expect any noticeable effects on the small line of Cottonwood trees that separates the Diamond Rock site from the adjacent irrigated agricultural use.

5. Characterization of In-stream Terraces

The graphics (Figure 4-14) and text (Section 3.4.2.1.2, dealing with vegetative communities and 3.4.2.2.1 dealing with the U.S. Army Corps of Engineers jurisdiction) describe these in-channel areas as mixed alluvial scrub – river channel, and "...stream terraces in the middle of the river channel...." The latter phrase was used to emphasize that these features extend above the ordinary high water mark, as evidenced by their structure and vegetation. There is no confusion between these in-channel features and the relatively more stable river terraces associated with the banks of the river.